



City Council Meeting

Monday, August 24, 2026 at 5:15 pm

LOCATION OF MEETING:

City Hall Council Chambers, 627 N. Adams Street, Carroll, Iowa 51401

NOTICE

In addition to attending the meeting in person, the public can watch the meeting live from the City's Cable Access Channel CAAT6 available on Western Iowa Network and Mediacom or on the City's YouTube channel by going to: <https://www.youtube.com/CityofCarrollIowa> If you choose to watch live on YouTube you are encouraged to subscribe to the City's YouTube channel so you can access the meeting live when it starts. CAAT6 and YouTube meeting feeds are a view only option and you will not be able to participate in the meeting via CAAT6 or YouTube.

AGENDA

1. Pledge of Allegiance

2. Roll Call

3. Consent Agenda

- a. Approval of Minutes of the August 10, 2026 Meeting**
- b. Approval of Bills and Claims**
- c. Licenses and Permits: None**
- d. Parks Department - Bid Opening for Stand on Sprayer**
- e. Carter Wittrock and Macy Wittrock Settlement Agreement and Release of Claim**

4. Oral Requests and Communications from the Audience

Members of the public wishing to address the Council for items not on the agenda are asked to approach the podium and wait to be recognized. After recognition, the person shall state their name and address for the record. Statement or questions are limited to five (5) minutes.

5. Ordinances

- a. Carroll City Ordinance Chapter 76 Amendment – Bicycles and Personal Transportation Devices Regulations, First Reading**

6. Resolutions

- a. Kuemper One Campus Project**
 - Public Hearing on the Proposed Granting of an Easement Across City's Real Estate
 - Resolution Granting Easement Across City's Real Estate

See also item 7.a - [February 10, 2025](#) - Vacation Disposal of East Street
 and item 5.b - [February 23, 2026](#) - Vacation of a Portion of South East Street - Public Hearing and Ordinance Vacating a Portion of South East Street
 and item 6.a - [March 9, 2026](#) - Vacation of a Portion of South East Street - Adoption of Proposed Ordinance
 and item 7.b - [April 13, 2026](#) - Kuemper One Campus Project - Water Supply Service Agreement
 and item 7.b - [August 10, 2026](#) - Kuemper One Campus Project - Resolution Setting Public Hearing on the Proposed Granting of An Easement Across the City's Real Estate

b. Public Improvements West Golfview Subdivision

- Public Hearing on Proposed Plans, Specifications, Form of Contract and Estimated Cost
- Resolution Adopting Plans, Specifications, Form of Contract and Estimated Cost

Also see item 8.c - [June 26, 2023](#) - Housing Discussion
 and item 6.a - [July 10, 2023](#) - N. West Street - Golf Course Property Development - Professional Services Agreement
 and item 7.b - [November 13, 2023](#) - West Golfview Subdivision - Paving Section Selection
 and item 8.a - [February 26, 2024](#) - Not to Exceed \$1,282,500 General Obligation Capital Loan Notes (Golfview Subdivision and Fire Rescue Vehicle) - Set Public Hearing
 and item 6.e - [April 8, 2024](#) - Vacation of a Portion of North West Street - Resolution Setting a Public Hearing
 and item 6.f - [April 8, 2024](#) - Rezoning Proposal from A-1, Agricultural District to R-3, Low-Density Residential District - Resolution Setting Public Hearing
 and item 7.c - [April 22, 2024](#) - Vacation of a Portion of North West Street - Public Hearing and Ordinance
 and item 7.d - [April 22, 2024](#) - Rezoning Request from A-1, Agricultural District to R-3, Low-Density Residential District - Public Hearing and Ordinance
 and item 7.a - [May 13, 2024](#) - Vacation of a Portion of North West Street - 2nd Reading
 and item 7.b - [May 13, 2024](#) - Rezoning Request from A-1, Agricultural District to R-3, Low-Density Residential District - 2nd Reading
 and item 5.a - [May 28, 2024](#) - Rezoning Request from A-1, Agricultural District to R-3, Low-Density Residential District - 3rd Reading
 and item 6.b - [June 24, 2024](#) - West Golfview Subdivision - Preliminary Plat - Final Plat
 and item 8.d - [August 12, 2024](#) - West Golfview Subdivision - Request for Proposals
 and item 6.a - [September 23, 2024](#) - West Golfview Subdivision - Review of Proposals Submitted - Resolution Setting a Public Hearing on the Proposed Sale of City Interest in Real Estate
 and item 8.a - [October 14, 2024](#) - West Golfview Subdivision - Motion to Reconsider Proposals Submitted Previously at the September 23 Council Meeting, Resolution Setting a Public Hearing on the Proposed Sale of City Interest in Real Estate
 and item 8.d - [March 23, 2026](#) - West Golfview Subdivision Urban Renewal Plan - Resolution determining the necessity and setting dates of a consultation and a public hearing on a proposed West Golfview Subdivision Urban Renewal Plan for a proposed Urban Renewal Area in the City of Carroll, State of Iowa
 and item 6.b - [April 27, 2026](#) - West Golfview Subdivision Urban Renewal Plan - Public Hearing, Resolution Adopting the West Golfview Subdivision Urban Renewal Plan, Resolution Approving an Extension Agreement with Carroll County and Carroll Community

School District and Consideration of the TIF Ordinance - 1st Reading
and item 6.a - [May 11, 2026](#) - West Golfview Subdivision Urban Renewal Plan -
Consideration of Ordinance for the division of revenues under Section 403.19, Code of
Iowa, for West Golfview Subdivision Urban Renewal Plan - 2nd Reading
and item 6.a - [May 26, 2026](#) - West Golfview Subdivision Urban Renewal Plan - TIF
Ordinance - 3rd Reading and Professional Services Agreement Amendment No. 1

c. Tree Removal - 2026

- Report of Proposal Opening
- Consideration of Acceptance of Proposal

7. Reports

a. Carroll Chamber of Commerce Celebrate Carroll Funding Request

8. Committee Reports (Informational Only)

9. Comments from the Mayor

10. Comments from the City Council

11. Comments from the City Manager

12. Adjourn

September Meetings:

- * Board of Adjustment - Tuesday, September 8, 2026 at 5:15p.m. - City Hall - 627 N Adams St
- * Planning and Zoning Commission – September 9, 2026 at 5:15 p.m. – City Hall - 627 N Adams St
- * City Council – September 14, 2026 at 5:15 p.m. – City Hall – 627 N Adams St
- * Airport Commission – September 14, 2026 at 5:30 p.m. – Airport Terminal Building - 21177 Quail Ave
- * Library Board of Trustees – September 21, 2026 at 5:15 p.m. – Carroll Public Library – 118 E 5th St
- * City Council – September 28, 2026 at 5:15 p.m. – City Hall – 627 N Adams St

www.cityofcarroll.com

The City of Carroll will make every attempt to accommodate the needs of persons with disabilities, please notify us at least three business days in advance when possible at 712-792-1000, should special accommodations be required.

COUNCIL MEETING

AUGUST 10, 2026

(Please note these are draft minutes and may be amended by Council before final approval.)

The Carroll City Council met in regular session on this date at 5:15 p.m. in the Council Chambers, City Hall, 627 N. Adams Street. Council Members present: Jason Atherton, Kyle Bauer, Jeff Cayler, LaVern Dirx, Deb Koster and Carolyn Siemann (via speaker telephone call). Absent: None. Mayor Jerry Fleshner presided.

* * * * *

The Pledge of Allegiance was led by the City Council. No Council action taken.

* * * * *

New Police Samuel Barber was introduced to Council and sworn in by Mayor Fleshner. No Council action taken.

* * * * *

It was moved by Atherton, seconded by Cayler, to approve the following items on the consent agenda: a) minutes of July 27, 2026 meeting, as written; b) bills and claims in the amount of \$1,786,036.72; c) Licenses and Permits: None; d) the bid from Wittrock Building Co LLC in the amount of \$12,326.50 for concrete work for the Graham Park Bandshell; and e) the bid from Bock Tree Service in the amount of \$14,260.00 for the removal of eight trees in the Cemetery. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

There were no oral requests or communications from the audience.

* * * * *

It was moved by Atherton, seconded by Cayler, to approve the second reading and waive the third reading of the ordinance amending provisions pertaining to no parking on Quint Avenue at the corner of Tenth Street. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

It was moved by Cayler, seconded by Atherton, to adopt said Ordinance No. 2613. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

It was moved by Atherton, seconded by Cayler, to approve Resolution No. 26-93, Setting a Public Hearing on the Proposed Granting of an Easement Across the City's Real Estate for the Kuemper One Campus Project. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

At 5:27 p.m. Mayor Fleshner opened a public hearing on an Amended and Restated Agreement for Private Development by and between the City of Carroll and Ziegler Carroll LLC. Mark Beardmore, Carroll resident, addressed Council during the public hearing. Mayor Fleshner closed said hearing at 5:32 p.m.

It was moved by Dirkx, seconded by Cayler, to approve Resolution No. 26-94, Authorizing the Execution of an Amended and Restated Agreement for Private Development by and between the City of Carroll and Ziegler Carroll LLC. Adam Schweers, Carroll County Growth Partnership Executive Director, addressed Council on this issue. On roll call: Ayes: Bauer, Cayler, Dirkx and Siemann. Nays: Atherton and Koster. Abstain: None. Absent: None. Motion carried 4-2.

It was moved by Dirkx, seconded by Cayler, to approve Resolution No. 26-95, Authorizing or Confirming Advancement of Costs for Urban Renewal Projects and Authorizing Certification of Expenses Incurred by the City for Payment Under Iowa Code Section 403.19 for the Ziegler Urban Renewal Area. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

It was moved by Atherton, seconded by Cayler, to approve Resolution No. 26-96, Employment Agreement for Police Officer Samuel Barber. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

It was moved by Atherton, seconded by Cayler, to approve Resolution No. 26-97, Authorizing the Submission of a Resource Enhancement and Protection (REAP) Grant Application for improvements in Northeast Park. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

It was moved by Cayler, seconded by Atherton, to go into closed session at 5:55 p.m. per Iowa Code 21.5(1)(c) to discuss strategy with counsel in matters where the litigation is imminent where its disclosure would be likely to prejudice or disadvantage the position of the governmental body in that litigation. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

It was moved by Atherton, seconded by Cayler, to go back into open session at 6:11 p.m. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

* * * * *

It was moved by Atherton, seconded by Cayler, to authorize the Mayor to execute any settlement documents on behalf of the City to finalize the tentative settlement agreement negotiated with Colby Schumann and Jessica Schumann. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried: 6-0.

* * * * *

It was moved by Atherton, seconded by Bauer, to adjourn at 6:14 p.m. On roll call, all present voted aye. Nays: None. Abstain: None. Absent: None. Motion carried 6-0.

Gerald H. Fleshner, Mayor

ATTEST:

Laura A. Schaefer, City Clerk



Carroll, IA

COUNCIL CLAIMS 08/24/2026

By Vendor Name

Payment Dates 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
Vendor: 001720 - ACCESS SYSTEMS				
INV2032628	RC - COPIER CONTRACT			56.70
INV2032628	FIN - COPIER CONTRACT			138.58
Vendor 001720 - ACCESS SYSTEMS Total:				195.28
Vendor: 001704 - ACCO				
0266207-IN	AC - POOL CHEMICALS			1,129.40
266026-IN	RC - POOL SCRUBBER			6,473.11
Vendor 001704 - ACCO Total:				7,602.51
Vendor: 012650 - ALLIANT ENERGY-IES UTILIT				
INV0003666	GAS BILLS	137399	08/12/2026	25.26
INV0003666	GAS BILLS	137399	08/12/2026	72.89
INV0003666	GAS BILLS	137399	08/12/2026	92.25
INV0003666	GAS BILLS	137399	08/12/2026	37.89
INV0003666	GAS BILLS	137399	08/12/2026	74.01
INV0003666	GAS BILLS	137399	08/12/2026	156.44
INV0003666	GAS BILLS	137399	08/12/2026	1,832.15
INV0003666	GAS BILLS	137399	08/12/2026	5,371.16
INV0003666	GAS BILLS	137399	08/12/2026	34.65
INV0003666	GAS BILLS	137399	08/12/2026	42.04
INV0003666	GAS BILLS	137399	08/12/2026	45.19
INV0003666	GAS BILLS	137399	08/12/2026	70.41
INV0003666	GAS BILLS	137399	08/12/2026	74.75
Vendor 012650 - ALLIANT ENERGY-IES UTILIT Total:				7,929.09
Vendor: 036458 - AMAZON CAPITAL SERVICES INC				
1KT9-J37T-F3NM	LIBRARY - BOOKS	137420	08/18/2026	1,599.59
1QTJ-KY4L-CPPY	LIBRARY - FIRST AID SUPPLIES...	137420	08/18/2026	41.99
Vendor 036458 - AMAZON CAPITAL SERVICES INC Total:				1,641.58
Vendor: 036588 - AMERICAN FENCE COMPANY OF IOWA INC				
DES010254	MP - REPLACE DUGOUT PAD			466.53
Vendor 036588 - AMERICAN FENCE COMPANY OF IOWA INC Total:				466.53
Vendor: 002916 - AMERICAN RED CROSS				
23414573	RC - LIFEGUARD STAFF TRAINI...			240.00
Vendor 002916 - AMERICAN RED CROSS Total:				240.00
Vendor: 000380 - AMERICAN TEST CENTER				
2261643	GC - AUTO LIFT INSPECTION			320.00
Vendor 000380 - AMERICAN TEST CENTER Total:				320.00
Vendor: 002370 - ARNOLD MOTOR SUPPLY				
07NV187485	RUT - #36 NON SLIP TAPE			99.08
07NV187833	RUT - #36 THREAD SEALANT			94.39
Vendor 002370 - ARNOLD MOTOR SUPPLY Total:				193.47
Vendor: 000048 - AVAILA BANK				
INV0003668	NEW AVAILA CD	137383	08/11/2026	2,000,000.00
Vendor 000048 - AVAILA BANK Total:				2,000,000.00
Vendor: 000609 - BIERSCHBACH EQUIP & SUPPL				
220479	RUT - TALL CONE WEIGHTS			300.00
Vendor 000609 - BIERSCHBACH EQUIP & SUPPL Total:				300.00
Vendor: 003515 - BOMGAARS				
21782219	AIRPORT - TRAPS	137393	08/12/2026	53.95
21778504	PARKS - GLOVES AND SPRAYER..			59.97
21790581	CEMETERY - TRIMMER HEAD			33.99
21792306	GARAGE - TAPE MEASURES			93.96

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
21793015	GARAGE - FLAG BRACKETS			35.92
21793855	PARKS - SHELVING FOR CHEM...			202.50
21793855	GC - SHELVING FOR CHEMICAL...			607.47
21794572	RUT - HOSE WASHERS			23.37
21796854	FD - FLAG MOUNTING MATER...			61.20
Vendor 003515 - BOMGAARS Total:				1,172.33
Vendor: 003693 - BRUNER & BRUNER				
6053	KERKHOFF/EMERALD LINKS P...			170.00
6053	GENERAL ATTY FEES			340.00
6053	TOBACCO ENFORCEMENT			136.00
6055	POLICE/MAGISTRATE			1,598.00
6056	ADAMS ST NUISANCE			272.00
6056	ZONING AND SUBDIVISION			68.00
Vendor 003693 - BRUNER & BRUNER Total:				2,584.00
Vendor: 004138 - CAPITAL SANITARY SUPPLY				
R083909A	RC - HAND SOAP			88.53
R084189	RC - FLOOR PAD, DISINFECTA...			468.63
R084211	RC - BOWL CLEANER, URINAL ...			24.14
R084215	CITY HALL - PAPER TOWELS, T...			157.51
R084250	GARAGE - TOILET PAPER AND ...			144.41
Vendor 004138 - CAPITAL SANITARY SUPPLY Total:				883.22
Vendor: 004132 - CARROLL AVIATION INC.				
25205	AIRPORT - CONTRACT	137395	08/12/2026	7,685.00
Vendor 004132 - CARROLL AVIATION INC. Total:				7,685.00
Vendor: 004146 - CARROLL CONTROL SYSTEMS LLC				
10654	WATER - BACK FLOW PREVEN...			465.00
10688	PD - AIR CONDITIONER REPAIR			142.50
Vendor 004146 - CARROLL CONTROL SYSTEMS LLC Total:				607.50
Vendor: 024005 - CARROLL EYE CARE ASSOC.				
INV0003709	PRE EMPLOYMENT EXAM - A ...			26.00
Vendor 024005 - CARROLL EYE CARE ASSOC. Total:				26.00
Vendor: 004196 - CARROLL HYDRAULICS				
74184	GARAGE - #36 - HYDRAULIC H...			698.80
Vendor 004196 - CARROLL HYDRAULICS Total:				698.80
Vendor: 004200 - CARROLL LUMBER				
465317	MINCHEN PARK - RESTROOM ...			76.72
Vendor 004200 - CARROLL LUMBER Total:				76.72
Vendor: 002977 - CARROLL REFUSE SERVICE				
424537	AIRPORT - JULY GARBAGE SER...	137390	08/12/2026	68.83
Vendor 002977 - CARROLL REFUSE SERVICE Total:				68.83
Vendor: 001944 - CHAD W STEINKAMP				
907835	AIRPORT - SEED BEANS	137389	08/12/2026	1,988.50
Vendor 001944 - CHAD W STEINKAMP Total:				1,988.50
Vendor: 002867 - CINTAS FIRST AID & SAFETY				
5353267112	GC - FIRST AID SUPPLIES			82.57
5353267112	RC - FIRST AID SUPPLIES			47.04
5353594406	GARAGE - FIRST AID SUPPLIES			104.49
Vendor 002867 - CINTAS FIRST AID & SAFETY Total:				234.10
Vendor: 036585 - COMMERCIAL RECREATION SPECIALISTS INC				
SO-0050204	AC POOL PLAYGROUND REPAI...			6,370.00
SO-0050205	AC POOL REHAB PROJECT			3,000.00
Vendor 036585 - COMMERCIAL RECREATION SPECIALISTS INC Total:				9,370.00
Vendor: 004835 - COMMERCIAL SAVINGS BANK				
INV0003703	FD - TRUCK INCOMING WIRE ...	DFT0001743	08/18/2026	5.00
Vendor 004835 - COMMERCIAL SAVINGS BANK Total:				5.00

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
Vendor: 004836 - COMMUNITY OIL CO. INC.				
27580	WWTP - GREASE			70.65
Vendor 004836 - COMMUNITY OIL CO. INC. Total:				70.65
Vendor: 005110 - CULLIGAN SOFT WATER				
19306	RC - SOFTNER SALT			127.50
Vendor 005110 - CULLIGAN SOFT WATER Total:				127.50
Vendor: 005640 - DES MOINES REGISTER				
INV0003679	LIBRARY - PERIODICAL 1 YR	137412	08/18/2026	467.04
Vendor 005640 - DES MOINES REGISTER Total:				467.04
Vendor: 006270 - DREES HEATING & PLUMBING				
97631	AIRPORT - CUPS	137396	08/12/2026	20.00
INV1381	AIRPORT - WATER	137396	08/12/2026	27.00
INV1473	AIRPORT - WATER	137396	08/12/2026	18.00
Vendor 006270 - DREES HEATING & PLUMBING Total:				65.00
Vendor: 012590 - ECHO ELECTRIC				
S012198997.001	AIRPORT - T-HANGAR LED BU...	137398	08/12/2026	137.14
S12198997.002	AIRPORT - T-HANGAR LED BU...	137398	08/12/2026	205.71
S012177485.001	LIBRARY - WALL ANCHORS	137414	08/18/2026	32.91
S012245397.001	FD - BATTERIES			60.59
Vendor 012590 - ECHO ELECTRIC Total:				436.35
Vendor: 007253 - ELECTRIC MOTOR SERVICE LLC				
0011024	WATER - MOTOR FOR CONFIN...			108.40
0011051	WATER - HSPS REPAIR GENER...			216.70
Vendor 007253 - ELECTRIC MOTOR SERVICE LLC Total:				325.10
Vendor: 003971 - EMPLOYEE BENEFIT SYSTEMS				
INV0003678	HRA CHECKS	DFT0001728	08/12/2026	6,505.76
Vendor 003971 - EMPLOYEE BENEFIT SYSTEMS Total:				6,505.76
Vendor: 008027 - FAREWAY STORES				
00093519	AC - STAFF WATER			15.87
00280310	AC - STAFF WATER			10.58
Vendor 008027 - FAREWAY STORES Total:				26.45
Vendor: 003403 - FAST LANE AUTO CARE				
32542	PD - CAR CLEANING SUPPLIES			288.32
Vendor 003403 - FAST LANE AUTO CARE Total:				288.32
Vendor: 000013 - FIRE/POLICE RETIREMENT SY				
INV0003690	MFPRSI CONTRIBUTIONS	DFT0001733	08/20/2026	16,033.42
Vendor 000013 - FIRE/POLICE RETIREMENT SY Total:				16,033.42
Vendor: 003848 - FIRST IMPRESSION				
INV0003707	AUGUST DOWNTOWN RESTR...			300.00
Vendor 003848 - FIRST IMPRESSION Total:				300.00
Vendor: 002806 - FOUNDATION ANALYTICAL LABORATORY INC				
26-03456	WWTP - LAB TESTING			1,524.60
Vendor 002806 - FOUNDATION ANALYTICAL LABORATORY INC Total:				1,524.60
Vendor: 009315 - GALLS INC.				
035872533	PD - UNIFORM SHIRTS - BARB...			257.78
035872534	PD - UNIFORM BOOTS, PANTS,...			700.77
035877725	PD - BACKPACK - BARBER			164.51
Vendor 009315 - GALLS INC. Total:				1,123.06
Vendor: 009535 - GENERAL RENTAL				
224480	PARKS - SCREWS			45.00
224633	RUT - CONCRETE TROWELS			216.00
224755	RUT - CONCRETE SAW BLADE			899.00
224852	GARAGE - EAR PLUGS			338.00
224946	RUT - CONCRETE BLADE			899.00
225132	PARKS - SANDING PADS			70.00
Vendor 009535 - GENERAL RENTAL Total:				2,467.00

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
Vendor: 009855 - GLIDDEN GRAPHIC				
3771	LIBRARY - GLIDDEN GRAPHIC -...	137413	08/18/2026	45.00
			Vendor 009855 - GLIDDEN GRAPHIC Total:	45.00
Vendor: 001909 - GREAT AMERICAN INSURANCE COMPANY				
INV0003677	AIRPORT - HAIL INSURANCE	137388	08/12/2026	798.00
			Vendor 001909 - GREAT AMERICAN INSURANCE COMPANY Total:	798.00
Vendor: 010605 - HACH CHEMICAL COMPANY				
15111690	WATER - LAB SUPPLIES			1,485.89
15113884	WATER - LAB SUPPLIES			122.00
15123468	WATER - LAB SUPPLIES			81.59
			Vendor 010605 - HACH CHEMICAL COMPANY Total:	1,689.48
Vendor: 010680 - HAWKINS WATER TREATMENT				
7524848	WATER - WATER TREATMENT ...			5,424.90
			Vendor 010680 - HAWKINS WATER TREATMENT Total:	5,424.90
Vendor: 003275 - HEARTLAND VIDEO SYSTEMS INC.				
INV-102725	CAAT6 SOFTWARE MAINTEN...			760.00
			Vendor 003275 - HEARTLAND VIDEO SYSTEMS INC. Total:	760.00
Vendor: 002965 - HOTSYS CLEANING SYSTEMS INC.				
PSI-325888	GARAGE - CLEANING SYSTEM ...			488.38
			Vendor 002965 - HOTSYS CLEANING SYSTEMS INC. Total:	488.38
Vendor: 003709 - HUGEBACK LAWNCARE LLC				
6701	MP - IRRIGATION SYSTEM REP...			329.85
			Vendor 003709 - HUGEBACK LAWNCARE LLC Total:	329.85
Vendor: 012552 - INDUSTRIAL BEARING SUPP.				
IN252828	PARKS - BALL BEARINGS			51.36
IN253028	WWTP - LAWN MOWER GEAR...			5.62
			Vendor 012552 - INDUSTRIAL BEARING SUPP. Total:	56.98
Vendor: 036489 - INFOSEND INC				
315168	WATER - UTILITY BILL MAILING			467.42
315168	WATER - POSTAGE TO MAIL U...			1,946.37
			Vendor 036489 - INFOSEND INC Total:	2,413.79
Vendor: 036466 - INGRAM LIBRARY SERVICES LLC				
97983712	LIBRARY - BOOKS	137421	08/18/2026	10.99
97983713	LIBRARY - BOOKS	137421	08/18/2026	436.70
97983714	LIBRARY - BOOKS	137421	08/18/2026	18.65
97983715	LIBRARY - BOOKS	137421	08/18/2026	22.51
97983716	LIBRARY - BOOKS	137421	08/18/2026	20.49
98065994	LIBRARY - BOOKS	137421	08/18/2026	31.41
98099736	LIBRARY - BOOKS	137421	08/18/2026	19.92
98129870	LIBRARY - BOOKS	137421	08/18/2026	20.24
98141023	LIBRARY - BOOKS	137421	08/18/2026	41.76
			Vendor 036466 - INGRAM LIBRARY SERVICES LLC Total:	622.67
Vendor: 003982 - IOWA INFORMATION MEDIA GROUP				
45945	LIBRARY - CALENDAR AD	137410	08/18/2026	85.80
46350	LIBRARY - CALENDAR AD	137410	08/18/2026	85.80
46356	FIN - LEGAL PUBLICATIONS			347.18
46356	2026 WESTFIELD LOST TIF ORD..			148.91
46356	ZIEGLER AMENDED DA PUBLIC...			58.08
46356	2026 WESTFIELD TIF ORDINA...			117.00
			Vendor 003982 - IOWA INFORMATION MEDIA GROUP Total:	842.77
Vendor: 012642 - IOWA LAW ENFORCE ACADEMY				
334220	PD - MMPI - BARBER			325.00
			Vendor 012642 - IOWA LAW ENFORCE ACADEMY Total:	325.00
Vendor: 012685 - IOWA SMALL ENGINE CENTER				
155639	FD - CLEANED CARBURATOR			67.38

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
7.26.1686	FD - MISC SUPPLIES			1.01
Vendor 012685 - IOWA SMALL ENGINE CENTER Total:				68.39
Vendor: 012706 - IPERS				
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	15,384.92
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	31.46
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	622.82
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	16.52
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	3,155.66
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	3,428.20
INV0003697	IPERS CONTRIBUTIONS	DFT0001739	08/20/2026	2,945.54
Vendor 012706 - IPERS Total:				25,585.12
Vendor: 003722 - iSOLVED BENEFIT SERVICES				
157040-2	JULY FLEX SPENDING PARTICI...	DFT0001727	08/11/2026	79.20
Vendor 003722 - iSOLVED BENEFIT SERVICES Total:				79.20
Vendor: 002453 - JASON MATTHEW LAMBERTZ				
FY26-02	CAAT6 PRODUCTION COSTS			820.00
Vendor 002453 - JASON MATTHEW LAMBERTZ Total:				820.00
Vendor: 013917 - JEO CONSULTING GROUP INC.				
176262	NW PARK SHELTERHOUSE ENG			6,080.00
Vendor 013917 - JEO CONSULTING GROUP INC. Total:				6,080.00
Vendor: 003246 - JESSICA KLOCKE				
INV0003706	RC - STAFF RETIREMENT LEHR...	137409	08/18/2026	109.06
Vendor 003246 - JESSICA KLOCKE Total:				109.06
Vendor: 025020 - JOHN DEERE FINANCIAL				
6955130	AIRPORT - MOWER REPAIRS	DFT0001746	08/18/2026	94.95
6959069	AIRPORT - MOWER REPAIRS	DFT0001745	08/18/2026	500.54
6963641	PD - #35 AIR FILTERS	DFT0001747	08/18/2026	259.57
6966007	CEMETERY - OIL AND FILTERS	DFT0001749	08/18/2026	102.59
6966424	CEMETERY - CREDIT ON OIL	DFT0001748	08/18/2026	-0.91
6968341	GC - LEVELING TOOL	DFT0001752	08/18/2026	234.00
6968912	GC - WASHERS, BELTS, AIR G...	DFT0001750	08/18/2026	287.35
6979055	CEMETERY - LOCK NUT & SHA...	DFT0001751	08/18/2026	17.90
Vendor 025020 - JOHN DEERE FINANCIAL Total:				1,495.99
Vendor: 003523 - KENNEBECK CARPET CLEANING				
404	CITY HALL CARPET CLEANING			600.00
Vendor 003523 - KENNEBECK CARPET CLEANING Total:				600.00
Vendor: 004066 - KERSTEN POSTEL				
INV0003680	LIBRARY - JULY OUTREACH MI...	137411	08/18/2026	26.98
Vendor 004066 - KERSTEN POSTEL Total:				26.98
Vendor: 002752 - MASTER METER SYSTEMS				
297375	WATER - SOFTWARE SUPPORT			2,261.00
Vendor 002752 - MASTER METER SYSTEMS Total:				2,261.00
Vendor: 017133 - MASTERCARD				
INV0003681	LIBRARY - SUMMER READING -..	137415	08/18/2026	81.76
INV0003681	LIBRARY - 3D PRINTER REPAIRS	137415	08/18/2026	104.97
INV0003682	FD - WATER	137418	08/18/2026	25.54
INV0003682	FD - SPEAKERS FOR TRAINING	137418	08/18/2026	24.36
INV0003702	FIN - IaCMA SUMMER CONFE...	137417	08/18/2026	204.20
INV0003702	FIN - EMPLOYEE RECOGNITION	137417	08/18/2026	31.97
INV0003705	COUNCIL - ZOOM	137416	08/18/2026	15.99
INV0003705	FIN - ADOBE SOFTWARE	137416	08/18/2026	19.99
INV0003705	FIN - MAIL CHIMP	137416	08/18/2026	19.50
INV0003710	PD - MAGAZINE POUCH	137423	08/18/2026	576.00
INV0003710	PD - FTO TRAINING REFUND	137423	08/18/2026	-459.75
INV0003710	PD - INVESTIGATION SUPPLIES	137423	08/18/2026	4.00
INV0003711	FD - PRINTER	137422	08/18/2026	199.99
INV0003711	RC - WRISTBANDS & CHEMICA...	137422	08/18/2026	225.95

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
INV0003711	RC - POOL TESTING	137422	08/18/2026	11.49
INV0003711	RC - SPRAY BOTTLES	137422	08/18/2026	36.85
INV0003711	RC - OPEN AI SUBSCRIPTION	137422	08/18/2026	106.99
INV0003711	RC - ARM SLINGS FOR WEIGHT...	137422	08/18/2026	56.00
INV0003711	RC - GRABBERS WITH MAGNE...	137422	08/18/2026	49.70
INV0003711	LS - PROMOTIONS	137422	08/18/2026	10.55
INV0003711	LS - PROMOTION	137422	08/18/2026	10.48
INV0003711	LS - TEAM SCHEDULE SOFTW...	137422	08/18/2026	1,399.00
INV0003711	LS - PROMOTION	137422	08/18/2026	96.00
INV0003711	LS - PROMOTION	137422	08/18/2026	41.92
INV0003711	LS - PROMOTION	137422	08/18/2026	20.96
INV0003711	AC - FOOD SAFETY LICENSE R...	137422	08/18/2026	155.25
INV0003711	AC - CONCESSIONS	137422	08/18/2026	98.90
INV0003711	AC - SANITIZER TABLETS	137422	08/18/2026	14.59
INV0003711	AC - FOOD EQUIPMENT CLEA...	137422	08/18/2026	13.49

Vendor 017133 - MASTERCARD Total: 3,196.64

Vendor: 003966 - MICROBAC LABORATORIES INC

NT2606036	WATER - PERMIT REQUIRED T...			315.00
NT-2606113	WATER - LEAD & COPPER PE...			536.00
NT2606219	WATER - MONTHLY BAC-TEES			119.25
NT2606288	WATER - MONTHY BAC TEES			97.50
NT2606318	WATER - PERMIT REQUIRED T...			63.75

Vendor 003966 - MICROBAC LABORATORIES INC Total: 1,131.50

Vendor: 012680 - MID AMERICAN ENERGY

INV0003667	ELECTRIC BILLS	137400	08/12/2026	881.95
INV0003667	ELECTRIC BILLS	137400	08/12/2026	525.02
INV0003667	ELECTRIC BILLS	137400	08/12/2026	188.20
INV0003667	ELECTRIC BILLS	137400	08/12/2026	14,404.12
INV0003667	ELECTRIC BILLS	137400	08/12/2026	647.44
INV0003667	ELECTRIC BILLS	137400	08/12/2026	1,322.93
INV0003667	ELECTRIC BILLS	137400	08/12/2026	1,947.15
INV0003667	ELECTRIC BILLS	137400	08/12/2026	263.14
INV0003667	ELECTRIC BILLS	137400	08/12/2026	840.60
INV0003667	ELECTRIC BILLS	137400	08/12/2026	1,131.46
INV0003667	ELECTRIC BILLS	137400	08/12/2026	9,333.98
INV0003667	ELECTRIC BILLS	137400	08/12/2026	3,689.76
INV0003667	ELECTRIC BILLS	137400	08/12/2026	105.33
INV0003667	ELECTRIC BILLS	137400	08/12/2026	579.39
INV0003667	ELECTRIC BILLS	137400	08/12/2026	27.83
INV0003667	ELECTRIC BILLS	137400	08/12/2026	218.45
INV0003667	ELECTRIC BILLS	137400	08/12/2026	775.64
INV0003667	ELECTRIC BILLS	137400	08/12/2026	21.10
INV0003667	ELECTRIC BILLS	137400	08/12/2026	594.79
INV0003667	ELECTRIC BILLS	137400	08/12/2026	198.22
INV0003667	ELECTRIC BILLS	137400	08/12/2026	2,463.29
INV0003667	ELECTRIC BILLS	137400	08/12/2026	5,689.61
INV0003667	ELECTRIC BILLS	137400	08/12/2026	1,686.57
INV0003667	ELECTRIC BILLS	137400	08/12/2026	9,300.41
INV0003667	ELECTRIC BILLS	137400	08/12/2026	125.16

Vendor 012680 - MID AMERICAN ENERGY Total: 56,961.54

Vendor: 036584 - MIDWEST HERITAGE BANK, FSB

INV0003671	NEW MIDWEST HERITAGE CD	137386	08/11/2026	2,000,000.00
------------	-------------------------	--------	------------	--------------

Vendor 036584 - MIDWEST HERITAGE BANK, FSB Total: 2,000,000.00

Vendor: 017585 - MIDWEST WHOLESALE BLDG PRODUCTS

610384	RUT - FORM BOARDS			57.60
610843	WATER - PLYWOOD FOR MAIN..			16.95

Vendor 017585 - MIDWEST WHOLESALE BLDG PRODUCTS Total: 74.55

Vendor: 017730 - MOORHOUSE READY MIX CO.

8246	RM - COURT & 7TH ST - ROW ...			991.10
------	-------------------------------	--	--	--------

Page 12

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
8286	WATER - MAIN BREAK STREET...			1,892.10
8320	WATER - 17TH & CARROLL MA...			450.50
8332	WATER - 17TH ST DRIVEWAY ...			720.80
8354	RUT - 9TH & BOYLAN PATCH			1,261.40
8484	RM - 3RD & ADAMS ROW			1,351.50
8546	RUT - 21ST & NW PATCH			540.60
8555	RUT - N WEST & 21ST PATCH			1,711.90
8574	RUT - N WEST & 21ST ST PAT...			991.10
8593	RUT - N WEST & 21ST ST PAT...			1,171.30
Vendor 017730 - MOORHOUSE READY MIX CO. Total:				11,082.30
Vendor: 003529 - MURRAY'S WELDING				
CB128606	WATER - ROD FOR TILE PROBE			29.00
Vendor 003529 - MURRAY'S WELDING Total:				29.00
Vendor: 018408 - NAPA AUTO PARTS				
152458	WATER - TRUCK #53 WARNIN...			20.65
153150	WWTP - SNAP RING PLIERS SET			54.80
Vendor 018408 - NAPA AUTO PARTS Total:				75.45
Vendor: 036419 - NICK SCHULZ				
INV0003563	WWTP - STEEL TOED WORK B...	137402	08/14/2026	193.72
Vendor 036419 - NICK SCHULZ Total:				193.72
Vendor: 003298 - NUTRIEN AG SOLUTIONS INC				
903676931	AIRPORT - FERTILIZER, HERBIC...	137391	08/12/2026	239.04
903721841	AIRPORT - FERTILIZER, HERBIC...	137391	08/12/2026	158.06
Vendor 003298 - NUTRIEN AG SOLUTIONS INC Total:				397.10
Vendor: 020203 - OFFICE STOP				
327568	LIBRARY - TAPE	137419	08/18/2026	54.84
Vendor 020203 - OFFICE STOP Total:				54.84
Vendor: 020326 - OPTIONS INK				
24460	WATER - LEAD & COPPER SA...			21.98
24460	WATER - PERMIT REQUIRED T...			34.41
24460	WATER - MONTHY BAC-TEES			14.93
24460	WATER - MONTHLY BAC-TEES			19.13
24460	WATER - LEAD & COPPER SA...			25.89
Vendor 020326 - OPTIONS INK Total:				116.34
Vendor: 003224 - OUTLAW SIGNS GRAPHICS & APPAREL				
13022	LIBRARY - NEW LOGO SHIRTS	137408	08/18/2026	435.00
Vendor 003224 - OUTLAW SIGNS GRAPHICS & APPAREL Total:				435.00
Vendor: 021050 - P & H WHOLESALE INC.				
4147693-00	RC - URINAL & DRAIN CLEANER			38.20
Vendor 021050 - P & H WHOLESALE INC. Total:				38.20
Vendor: 036590 - PENS.COM				
114731827	PD - PENS			185.27
Vendor 036590 - PENS.COM Total:				185.27
Vendor: 003148 - PFM FINANCIAL ADVISORS LLC				
143485	FD TRUCK - 2026A DEBT ISSU...			551.00
143485	TRAFFIC SIGNALS - 2026A DEB...			7,446.75
143485	12TH STREET - 2026A DEBT IS...			4,958.98
143485	WATER PRESSURE ZONE - 202...			8,055.00
143485	WW DIGESTER - 2026A DEBT I...			4,438.52
Vendor 003148 - PFM FINANCIAL ADVISORS LLC Total:				25,450.25
Vendor: 003730 - QUADIENT INC.				
63222937	PD - POSTAGE METER RENTAL			5.70
63222937	LIBRARY - POSTAGE METER R...			9.78
63222937	FIN - POSTAGE METER RENTAL			66.23
63222937	WATER - POSTAGE METER RE...			29.29
Vendor 003730 - QUADIENT INC. Total:				111.00

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
Vendor: 001136 - R & R SEPTIC SERVICE LLC				
17124	AIRPORT - SEPTIC REPAIRS	137387	08/12/2026	235.00
17102	LS - RESTROOM RENTALS - LL ...			555.00
Vendor 001136 - R & R SEPTIC SERVICE LLC Total:				790.00
Vendor: 009870 - RACCOON VALLEY ELECTRIC COOP				
INV0003675	AIRPORT - ELECTRIC	137397	08/12/2026	557.38
Vendor 009870 - RACCOON VALLEY ELECTRIC COOP Total:				557.38
Vendor: 003513 - SCHROEDER CONSTRUCTION & ROOFING LLC				
INV0003676	AIRPORT - T-HANGAR DOOR R...	137392	08/12/2026	11,786.59
Vendor 003513 - SCHROEDER CONSTRUCTION & ROOFING LLC Total:				11,786.59
Vendor: 003696 - SCI COMMUNICATIONS INC				
16839	TELEPHONE			224.56
16839	TELEPHONE			25.53
16839	TELEPHONE			83.03
16839	TELEPHONE			74.06
16839	TELEPHONE			19.03
16839	TELEPHONE			44.56
16839	TELEPHONE			125.06
16839	TELEPHONE			19.03
16839	TELEPHONE			19.03
16839	TELEPHONE			170.55
16839	TELEPHONE			71.53
16839	TELEPHONE			33.53
Vendor 003696 - SCI COMMUNICATIONS INC Total:				909.50
Vendor: 025250 - SHERWIN WILLIAMS CO.				
77309146270826	PARKS - SHELTERHOUSE PAINT			160.29
80246146270826	PARKS SHELTERHOUSE PAINT			160.29
Vendor 025250 - SHERWIN WILLIAMS CO. Total:				320.58
Vendor: 004053 - SPEED'S AUTOMOTIVE SUPPLY				
340243	GC - GOLF CART RENTAL - GOL...			2,790.00
Vendor 004053 - SPEED'S AUTOMOTIVE SUPPLY Total:				2,790.00
Vendor: 025880 - STONE PRINTING CO.				
121217	GC CLUBHOUSE INK CARTRID...			89.97
P14364	FD - LETTERHEAD			279.00
19722	PW ADMIN - CALCULATOR			129.99
P14931	PD - BARBER BUSINESS CARDS			109.50
P14932	PD - SCRATCH PADS			197.10
Vendor 025880 - STONE PRINTING CO. Total:				805.56
Vendor: 036587 - THE LAW OFFICE OF REDENBAUGH & MORH PC				
7827	INS. SETTLEMENT - SCHUMA...			1,420.00
Vendor 036587 - THE LAW OFFICE OF REDENBAUGH & MORH PC Total:				1,420.00
Vendor: 001193 - THE MARKET ON 30				
371298	LIBRARY - SUMMER READING...	137407	08/18/2026	621.16
Vendor 001193 - THE MARKET ON 30 Total:				621.16
Vendor: 004029 - TOPLOFT CLOTHING				
1013253	STATE BASEBALL VOLUNTEER ...			364.00
1013279	STATE BASEBALL VOLUNTEER ...			640.50
INV0003712	2025 DOWNTOWN FACADE G...			20,000.00
Vendor 004029 - TOPLOFT CLOTHING Total:				21,004.50
Vendor: 036493 - TREVIPAY - WALMART				
INV0003704	PD - DISH SOAP & WATER	DFT0001744	08/18/2026	44.08
INV0003704	PD - FAN	DFT0001744	08/18/2026	36.36
INV0003704	AC - CONCESSIONS - SPOONS	DFT0001744	08/18/2026	17.88
INV0003704	AC - STAFF WATER	DFT0001744	08/18/2026	10.54
INV0003704	AC - SUNSCREEN FOR STAFF	DFT0001744	08/18/2026	59.84
INV0003704	WWTP - DETERGENT, SANITIZ...	DFT0001744	08/18/2026	25.44
Vendor 036493 - TREVIPAY - WALMART Total:				194.14

COUNCIL CLAIMS 08/24/2026

Payment Dates: 8/11/2026 - 8/24/2026

Payable Number	Description (Item)	Payment Number	Payment Date	Amount
Vendor: 003499 - UMB BANK				
1057959	GO DEBT 2026A - ACCEPTANC...			300.00
			Vendor 003499 - UMB BANK Total:	300.00
Vendor: 002661 - UNITED BANK OF IOWA				
INV0003673	NEW UBI CD	137384	08/11/2026	1,000,000.00
			Vendor 002661 - UNITED BANK OF IOWA Total:	1,000,000.00
Vendor: 036582 - UNITYPOINT HEALTH AT WORK				
INV0003713	PRE EMP PHYS - BARBER			1,438.09
			Vendor 036582 - UNITYPOINT HEALTH AT WORK Total:	1,438.09
Vendor: 028290 - USA BLUE BOOK				
INV01118938	WATER - TOOLS FOR MAIN RE...			407.37
INV01119359	WATER - VINYL WINDSOCKS			46.95
			Vendor 028290 - USA BLUE BOOK Total:	454.32
Vendor: 003854 - VAN DIEST SUPPLY COMPANY				
83158	PARKS - HERBICIDE			2,932.50
83158	CEMETERY - HERBICIDE			977.50
83159	GC - PLANT GROWTH REGULA...			330.00
			Vendor 003854 - VAN DIEST SUPPLY COMPANY Total:	4,240.00
Vendor: 028814 - VAN METER COMPANY				
S014558729.001	CBD - LIGHT BULBS FOR STREE...			843.08
S014564692.002	AC - OVERLOAD LIFT STATION...			38.89
			Vendor 028814 - VAN METER COMPANY Total:	881.97
Vendor: 002666 - VAN WALL EQUIPMENT INC.				
6979274	PARKS - SNOW PLOW BROOM...			5,866.46
			Vendor 002666 - VAN WALL EQUIPMENT INC. Total:	5,866.46
Vendor: 002468 - VFW				
048028	GARAGE - IOWA FLAGS			60.00
			Vendor 002468 - VFW Total:	60.00
Vendor: 002590 - WENDL'S WEAPONS LLC				
1610	PD - AR MAGAZINE			216.00
			Vendor 002590 - WENDL'S WEAPONS LLC Total:	216.00
Vendor: 003441 - WESTSIDE STATE BANK				
INV0003672	NEW WESTSIDE STATE BANK ...	137385	08/11/2026	2,000,000.00
			Vendor 003441 - WESTSIDE STATE BANK Total:	2,000,000.00
Vendor: 030355 - WITTROCK MOTOR CO.				
1239	AIRPORT - CAR RENTAL	137401	08/12/2026	550.00
			Vendor 030355 - WITTROCK MOTOR CO. Total:	550.00
Vendor: 003970 - WORLDWIDE EXPRESS				
260809W007410	WATER - FREIGHT W/E 8/12/2...	137394	08/12/2026	30.66
			Vendor 003970 - WORLDWIDE EXPRESS Total:	30.66
			Grand Total:	7,279,740.88

Report Summary**Fund Summary**

Fund	Expense Amount	Payment Amount
001 - GENERAL FUND	153,823.97	110,151.85
010 - HOTEL/MOTEL TAX	611.31	611.31
110 - ROAD USE TAX FUND	11,878.19	3,613.45
121 - LOCAL OPTION SALES TAX	29,670.00	0.00
178 - CRIME PREV/SPEC PROJECTS	136.00	0.00
200 - DEBT SERVICE FUND	300.00	0.00
301 - C.P. - EQUIPMENT PURCHASE	556.00	5.00
304 - C.P. - STREETS	12,405.73	0.00
311 - C.P. - PARKS & RECREATION	6,080.00	0.00
600 - WATER UTILITY FUND	30,926.18	13,413.93
602 - WATER UTILITY CAP. IMP.	8,055.00	0.00
610 - SEWER UTILITY FUND	14,354.22	12,665.02
612 - SEWER UTILITY CAP. IMP.	4,438.52	0.00
850 - MEDICAL INSURANCE FUND	6,505.76	6,505.76
999 - POOLED CASH/INV. FUND	7,000,000.00	7,000,000.00
Grand Total:	7,279,740.88	7,146,966.32

Gross payroll \$275,135.08



627 N Adams Street, Carroll, IA 51401

phone: (712) 792-1000 | fax: (712) 792-0139 | website: www.cityofcarroll.com

MEMO TO: Aaron Kooiker, City Manager

AK

FROM: Chad Tiemeyer, Director of Parks and Recreation

GT

DATE: August 17, 2026

SUBJECT: Parks Department- Bid Opening for Stand on Sprayer

Quotes have been received for a stand on sprayer in the Carroll Parks Department.

The bids are presented below:

<u>Company</u>	<u>Price</u>
Van Wall	\$19,494.68
Zimco	\$20,740.00
MTI	\$21,479.99

The amount budgeted was \$25,000.00

RECOMMENDATION: Mayor and City Council consideration and approval of the bid for a stand-on sprayer for the Parks Department from Van Wall for \$19,494.68.

MEMO TO: Honorable Mayor and City Council Members

FROM: Aaron Kooiker, City Manager



DATE: August 18, 2026

SUBJECT: Carter Wittrock and Macy Wittrock Settlement Agreement and Release of Claim

There were a couple of open liability insurance claims prior to the City switching insurance companies. The settlement and release of claim that is attached is one of those. This claim involves a water main replacement on April 16, 2026.

In the process of replacing part of the water main, sand got into the water main. The sand then got into Wittrock's water softer, damaging it to the extent it needed replaced. The cost of that replacement has been verified through receipts, and the cost of the replacement was \$2,594.75.

RECOMMENDATION: Council approval of the settled amount of \$2,594.75 payable to Carter and Macy Wittrock.

SETTLEMENT AGREEMENT AND RELEASE OF CLAIM

This Settlement Agreement and Release of Claim ("Agreement") is entered into by and between the **City of Carroll, Iowa**, a municipal corporation ("City"), and **Carter Wittrock and Macy Wittrock**, collectively referred to as the "Claimants."

RECITALS

- WHEREAS, on or about **April 16, 2026**, the City was engaged in or undertaking work associated with the replacement of a City water main; and
- WHEREAS, in connection with or arising from said water-main replacement work, Claimants allege that their water softener was damaged and required replacement, together with associated labor and related costs (the "Claim"); and
- WHEREAS, Claimants have presented a claim to the City seeking reimbursement for the replacement of the water softener and associated labor; and
- WHEREAS, the City and Claimants desire to fully and finally resolve the Claim without further dispute, litigation, expense, or controversy; and
- WHEREAS, the City has determined that settlement of the Claim is appropriate and has authorized the settlement.
- WHEREAS, the parties desire to memorialize the terms of their settlement and release in writing.
- NOW, THEREFORE, in consideration of the mutual promises, covenants, and releases contained herein, the parties agree as follows:

1. SETTLEMENT PAYMENT

The City agrees to pay Claimants, **Carter Wittrock and Macy Wittrock**, the total sum of:

TWO THOUSAND FIVE HUNDRED NINETY-FOUR DOLLARS AND SEVENTY-FIVE CENTS (\$2,594.75)

as full and final settlement of the Claim described in this Agreement.

The settlement payment represents compensation for the **replacement of the water softener and associated labor and costs** arising from the incident associated with the City's water-main replacement work on or about April 16, 2026.

Payment shall be made by the City upon receipt of this Agreement fully executed by Claimants.

2. FULL AND FINAL SETTLEMENT

Claimants acknowledge and agree that the payment of **\$2,594.75** constitutes full, complete, and final settlement of any and all claims, demands, damages, losses, costs, expenses, or causes of action that Claimants have or may have arising out of or relating to:

1. the City's water-main replacement work on or about April 16, 2026;
2. the alleged damage to Claimants' water softener;
3. the replacement of the water softener;
4. labor associated with the replacement or repair of the water softener; and
5. any other property damage, loss, cost, or expense directly arising from the same incident.

Claimants acknowledge that, except for the City's obligation to make the settlement payment expressly provided for herein, no further payment, reimbursement, or compensation is owed by the City relating to this Claim.

3. RELEASE OF CLAIMS

Upon receipt of the settlement payment described above, Claimants, for themselves and for their respective heirs, personal representatives, successors, and assigns, hereby fully and forever release and discharge the **City of Carroll, Iowa**, and its past and present elected officials, officers, employees, agents, representatives, departments, insurers, and authorized representatives (collectively, the "Released Parties") from any and all claims, demands, actions, causes of action, damages, losses, liabilities, costs, expenses, and attorney fees, whether known or unknown, suspected or unsuspected, arising out of or relating to the Claim and the City's water-main replacement work on or about April 16, 2026.

This Release is intended to be a complete and final settlement and discharge of the Claim described herein. Page 19

4. NO ADMISSION OF LIABILITY

- The parties acknowledge and agree that this Agreement constitutes a compromise and settlement of a disputed claim.
- The City's agreement to make the settlement payment shall not be construed as, and shall not constitute, an admission of liability, fault, negligence, wrongdoing, or responsibility by the City.
- The City expressly denies liability and enters into this Agreement solely to resolve the Claim and avoid the uncertainty, expense, and inconvenience associated with further proceedings.

5. REPRESENTATIONS OF CLAIMANTS

Claimants represent and warrant that:

- a. They are the persons asserting the Claim described herein;
- b. They have the full authority to enter into this Agreement and provide the release contained herein;
- c. They have not assigned, transferred, or otherwise conveyed any portion of the Claim or any claim released by this Agreement to any other person or entity;
- d. No other person or entity has an ownership interest in the Claim that would prevent Claimants from fully releasing the Claim; and
- e. They understand that this Agreement is intended to constitute a full and final settlement and release of the Claim.

6. NO FURTHER CLAIM FOR THE SAME INCIDENT

Claimants agree that, upon receipt of the settlement payment, they will not initiate, maintain, or pursue any claim, action, demand, or proceeding against the City arising from or relating to the Claim or the water-main replacement incident described herein.

7. VOLUNTARY AGREEMENT

Claimants acknowledge that they have carefully read this Agreement, understand its terms and legal effect, and voluntarily enter into it.

Claimants further acknowledge that they have had the opportunity to consult with independent legal counsel concerning this Agreement and have either done so or voluntarily elected not to do so.

8. NO RELIANCE

Claimants acknowledge that, in entering into this Agreement, they are relying solely upon the terms and conditions expressly set forth herein and not upon any representation, statement, promise, or omission by the City that is not contained in this Agreement.

9. ENTIRE AGREEMENT

This Agreement contains the entire agreement between the City and Claimants concerning the settlement of the Claim and supersedes all prior or contemporaneous oral or written discussions, negotiations, representations, or agreements concerning the subject matter of this Agreement.

Any amendment to this Agreement must be in writing and signed by the parties.

10. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the **State of Iowa**.

11. EFFECTIVE DATE

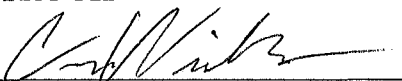
This Agreement shall become effective upon execution by the Claimants.

12. ACKNOWLEDGMENT OF SETTLEMENT

By signing below, Claimants acknowledge that the settlement amount of **\$2,594.75** is accepted as full and final settlement of the Claim and that, upon receipt of said payment, the release contained herein shall be fully effective.

CLAIMANTS

CARTER WITTROCK

Signature: 

Date: 01-10-2024

MACY WITTROCK

Signature: 

Date: 01/10/2024

PHONE: (712) 792-3536 | FAX: (712) 792-8088 | EMAIL: police@cityofcarroll.com

MEMO TO: Aaron Kooiker, City Manager 

FROM: Brad Burke, Chief of Police 

DATE: August 19, 2026

SUBJECT: Carroll City Ordinance Chapter 76 Amendment – Bicycles and Personal Transportation Devices Regulations, First Reading

Due to ongoing discussion regarding the regulation of e-bikes, scooters, and other personal transportation devices, I have drafted a proposed amendment to Chapter 76, which addresses bicycles and personal transportation device regulations.

The City's current ordinance does not specifically define or regulate e-bikes, scooters, or certain other emerging forms of micromobility. As a result, e-bike regulations are currently governed primarily by applicable Iowa Code provisions, while scooters and other personal transportation devices are not specifically addressed within the City's ordinance.

The proposed amendments are not intended to make significant changes to the City's existing regulations. Rather, they are intended to update and clarify Chapter 76 by establishing definitions for these newer types of transportation devices and applying regulations generally consistent with those already in place for bicycles.

This agenda item is intended to provide the City Council an opportunity to review and discuss the proposed changes and provide direction on developing an ordinance that appropriately addresses the use of e-bikes, scooters, and other personal transportation devices within the City, while remaining consistent with applicable Iowa law.

RECOMMENDATION: Council consideration of the following:

- Approval of the first reading of Ordinance 76 regarding bicycles and personal transportation devices

ORDINANCE NO. ____

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF CARROLL, IOWA, BY REPEALING CHAPTER 76 PERTAINING TO BICYCLE REGULATIONS

BE IT ENACTED by the City Council of the City of Carroll, Iowa:

SECTION 1. CHAPTER MODIFIED. Chapter 76 of the Code of Ordinances of the City of Carroll, Iowa, is repealed and the following adopted in lieu thereof:

CHAPTER 76

BICYCLES AND PERSONAL TRANSPORTATION DEVICES

76.01 PURPOSE.

The purpose of this Chapter is to set forth regulations for operating bicycles, scooters, electric scooters and other micromobility devices on the city's streets, sidewalks, and multi-use trails. (*Code of Iowa, Sec. 321.236[10]*)

76.02 DEFINITIONS.

1. "Bicycle" means either of the following: (1) A device having up to four wheels and having at least one saddle or seat for the use of a rider which is propelled by human power. (2) A low-speed electric bicycle.

(Code of Iowa, Sec. 321.1[40.c.])

2. "Electric scooter" means a device weighing less than one hundred pounds that is equipped with two or three wheels, handlebars, and an electric motor, and which is solely powered by the rider or by an electric motor capable of propelling the device without additional propulsion supplied by the rider, at a maximum speed on a paved level surface of no more than twenty miles per hour, or both.
3. "Low-speed electric bicycle" means a device having a saddle or seat for the use of a rider, up to four wheels, equipped with fully operable pedals, and an electric motor of less than seven hundred fifty watts that meets the requirements of one of the following classes:
 - a) "Class 1 low-speed electric bicycle" means a low-speed electric bicycle equipped with a motor that may be used to provide assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches a speed of twenty miles per hour or more
 - b) "Class 2 low-speed electric bicycle" means a low-speed electric bicycle equipped with a motor that may be used exclusively to propel the bicycle and that is not capable of providing assistance when the bicycle reaches a speed of twenty miles per hour or more
 - c) "Class 3 low-speed electric bicycle" means a low-speed electric bicycle equipped with a motor that may be used to provide assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches a speed of twenty-eight miles per hour or more.
4. "Micromobility device" means a mobility device under one hundred fifty pounds, which may be equipped with an electric motor for assistance or sole propulsion, designed for conveying the operator, with speeds of less than twenty miles per hour.

5. "Multi-use trail" means a way or place for the use and travel of bicycles, pedestrians, or other authorized conveyances, the use of which is controlled by the city, as approved by resolution by the city council, and no multi-use trail shall be considered as a street or highway.

76.03 TRAFFIC CODE APPLIES.

1. Every person riding a bicycle, electric scooter, or other micromobility device upon a roadway or in a bicycle lane shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by the laws of the State declaring rules of the road applicable to vehicles or by the Traffic Code of the City applicable to the driver of a vehicle, except as to those provisions that by their nature can have no application. Bicycles, electric scooters, or other micromobility devices are not subject to registration, licensure, titling, inspection, and proof of financial liability coverage provisions of Code of Iowa, Chapter 321. Riders of bicycles, electric scooters, or other micromobility devices are not required to have possession of a driver's license or permit. Whenever such person dismounts from a bicycle, the person shall be subject to all regulations applicable to pedestrians.

(Code of Iowa, Sec. 321.234[2, 5])

76.04 RESPONSIBLE RIDING

1. Double Riding Restricted. No bicycle, electric scooter, or micromobility device shall be used to carry more persons at one time than the number for which it is designed and equipped. This does not apply to the use of a bicycle or electric scooter in a parade authorized by proper permit from local authorities.
2. A person propelling a bicycle shall not ride other than astride a permanent and regular seat attached thereto. No bicycle, electric scooter, or micromobility device shall be used to carry more persons at one time than the number for which it is designed and equipped.

(Code of Iowa, Sec. 321.234[3 and 4])

3. Speed. A person shall not operate a bicycle, electric scooter, or micromobility device at a speed greater than is careful and prudent at a rate of speed no greater than is reasonable and proper under the conditions existing at the point of operation, taking into account the surroundings and environment, such as inclement weather, infrastructure conditions, and grade.
4. Control of bicycle, electric scooter, or micromobility device. The operator shall keep the device under directional, speed, and stopping control at all times.
5. Improper riding. No person shall operate a bicycle, electric scooter, or micromobility device in an irregular or reckless manner so as to disregard the safety of the operator, others, or property.
6. Right of way. Riders of electric scooters, low speed electric bicycles, and micromobility devices shall yield right of way to pedestrians, human-powered bicycles, and other human-powered conveyances. Riders of bicycles shall yield right of way to pedestrians.
7. Emerging from an Alley or Driveway. The operator of a bicycle, electric scooter, or micromobility device emerging from an alley, driveway or building shall, upon approaching a sidewalk or the sidewalk area extending across any alleyway, yield the right-of-way to all pedestrians approaching on said sidewalk or sidewalk area, and upon entering the roadway shall yield the right-of-way to all vehicles approaching on said roadway.

(Code of Iowa, Sec. 321.353)

8. Towing. It is unlawful for any person riding upon any bicycle, electric scooter, or micromobility device to attach the device or themselves to any moving motor vehicle by tow rope, hand grip or

otherwise. This section shall not prohibit attaching a trailer to a bicycle or electric scooter that is designed to accommodate such a device.

9. Carrying articles. No person operating a bicycle shall carry any package, bundle or article that prevents the rider from keeping at least one hand upon the handlebars.

76.05 RIDING ON SIDEWALKS

The following provisions apply to riding bicycles, electric scooters, and micromobility devices, on sidewalks.

1. Central Business District. No person shall ride a bicycle, electric scooter or micromobility device upon any sidewalk between Seventh Street to Third Street and Carroll Street to Clark Street.
2. Other locations. When signs are erected on any sidewalk or roadway prohibiting the riding of bicycles, electric scooters, or micromobility devices thereon by any person, no person shall disobey the signs.
3. Yield Right-of-Way. Whenever any person is riding a bicycle, electric scooter, or micromobility device upon a sidewalk, such person shall yield the right-of-way to any pedestrian.

76.06 PARKING

No person shall park a bicycle, electric scooter, or other micromobility device upon a street other than upon the roadway against the curb or upon the sidewalk in a rack to support the bicycle or against a building or at the curb, in such a manner as to afford the least obstruction to pedestrian traffic.

76.07 EQUIPMENT REQUIREMENTS

1. Every bicycle shall be equipped with a lamp on the front exhibiting a white light, between sunset and sunrise, visible from a distance of at least three hundred feet to the front and with a lamp on the rear exhibiting a red light visible from a distance of three hundred feet to the rear; except that a red reflector may be used in lieu of a rear light. A peace officer riding a police bicycle is not required to use either front or rear lamps if duty so requires.

(Code of Iowa, Sec. 321.397)

2. Every electric scooter or micromobility device shall be equipped with a lamp on the front exhibiting a white light, between sunset and sunrise, visible from a distance of at least three hundred feet to the front and with a lamp on the rear exhibiting a red light visible from a distance of three hundred feet to the rear; except that a red reflector may be used in lieu of a rear light. Equivalent equipment such as headlamps and red-light attachments to the head, back, arm, or leg may be used in lieu of a lamp on the front and a red light on the rear of the device.
3. Brakes Required. Every device shall have a mechanism which will enable the operator to bring the device to a complete stop within a safe distance.
4. A device shall not be equipped with and a person shall not use upon such device any siren or whistle. This shall not apply to bicycles ridden by peace officer in the line of duty.

(Code of Iowa, Sec. 321.434)

76.08 VIOLATIONS

Violations of any provision of this chapter shall constitute a simple misdemeanor punishable by the imposition of a fine of \$105.00 and any applicable surcharge and costs.

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

SECTION 3. 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 4. WHEN EFFECTIVE. This ordinance shall be in effect from and after its final passage, approval, and publication as provided by law.

Passed by the Council the ____ day of _____, 2026, and approved this ____ day of _____, 2026.

CITY COUNCIL OF THE
CITY OF CARROLL, IOWA

Gerald H. Fleshner, Mayor

ATTEST:

Laura A. Schaefer, City Clerk

First Reading: _____

Second Reading: _____

Third Reading: _____

I certify that the foregoing was published as Ordinance No. _____ on the ____ day of _____, 2026.

Laura A. Schaefer, City Clerk

MEMO TO: Honorable Mayor and City Council Members

FROM: Aaron Kooiker, City Manager



DATE: August 18, 2026

SUBJECT: Kuemper One Campus Project

- Public Hearing on the Proposed Granting of an Easement Across City's Real Estate
- Resolution Granting Easement Across City's Real Estate

In the new Kuemper One Campus Project, there is a skywalk across Bluff Street to connect buildings to prevent students and staff walking outside and needing to cross Bluff Street. To have that skywalk, the school will need an easement from the City to build over the City's street.

The notice of the public hearing was published on Friday, August 14, 2026.

Representatives from Kuemper plan to attend the meeting.

RECOMMENDATION: After public hearing, Council discussion and approval of the Resolution Granting an Easement Across Bluff Street to construct a skywalk as part of the Kuemper One Campus Project.

RESOLUTION NO. 26-_____

**RESOLUTION GRANTING AN EASEMENT
ACROSS CITY'S REAL ESTATE**

WHEREAS, disposal of the city's easement interest in real estate described as:

Being a part of E. Bluff Street, City of Carroll, Carroll County, Iowa, more particularly described as follows: Commencing at the Southeast corner of Block 64 Original Town of Carroll 5th Addition; thence along the Southerly line of said Block 64 also being the northerly right of way of E. Bluff Street N70°47'09"W, 10.90 feet to the point of beginning, thence continuing along said line N70°47'09"W 20.00 feet, thence departing said line S19°21'55"W, 67.50 feet to the northerly line of vacated E. Bluff Street, thence along said vacated E. Bluff Street S70°47'09"E 20.00 feet, thence departing said vacated line N19°21'55"E, 67.50 feet to the point of beginning.

is deemed appropriate; and

WHEREAS, the above-stated easement is being conveyed to Kuemper Catholic School System to accommodate the construction of a skywalk over and above E. Bluff Street, with a minimum vertical clearance of 14.5 feet; and

WHEREAS, the public hearing on the proposed easement was conducted on this date, after published notice thereof, and the Council has given due consideration to objections and evidence for or against the proposed easement, as reflected by the record of the public hearing; and

WHEREAS, the Council deems the proposed easement to be in the best interest of the City of Carroll, Iowa.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Carroll, Iowa, that the above-stated easement be granted to Kuemper Catholic School System, and the Mayor and Clerk are authorized to execute the easement on behalf of the City.

Passed and Adopted on this 24th day of August, 2026.

CITY COUNCIL OF THE
CITY OF CARROLL, IOWA

By: _____
Gerald H. Fleshner, Mayor

ATTEST:

Laura A. Schaefer, City Clerk

Prepared by and return to: David S. Bruner, 225 E 7th, PO BOX 863, Carroll, IA 51401 712-792-3480

SKYWALK EASEMENT

For and in consideration of the sum of One Dollar (\$1.00) and other valuable consideration, the receipt of which is hereby acknowledged. City of Carroll, an Iowa municipality (Grantor”), whose address is 627 N Adams Street Carroll, IA 51401, does hereby warrant and convey unto Kuemper Catholic School System, a non-profit corporation, its successors and assigns (“Grantee”), an easement with the right, privilege and authority to construct, reconstruct, maintain, operate, repair and remove a skywalk with a minimum vertical clearance of 14.5 feet above E. Bluff Street, Carroll, Iowa, including the necessary appurtenances under and on the surface of the ground used for construction purposes, and pursuant to the provisions hereof, upon, under, over and across the following described land located in the County of Carroll, and the State of Iowa.

Being a part of E. Bluff Street, City of Carroll, Carroll County, Iowa, more particularly described as follows: Commencing at the Southeast corner of Block 64 Original Town of Carroll 5th Addition; thence along the Southerly line of said Block 64 also being the northerly right of way of E. Bluff Street N70°47’09”W, 10.90 feet to the point of beginning, thence continuing along said line N70°47’09”W 20.00 feet, thence departing said line S19°21’55”W, 67.50 feet to the northerly line of vacated E. Bluff Street, thence along said vacated E. Bluff Street S70°47’09”E 20.00 feet, thence departing said vacated line N19°21’55”E, 67.50 feet to the point of beginning.

together with the rights and privileges for the full enjoyment or use thereof for the aforesaid purpose.

Grantee agrees that it will not construct or place any buildings, structures or other obstructions on the traveled portion of E. Bluff Street or sidewalks adjoining E. Bluff Street other than the skywalk, which shall have a minimum vertical clearance of 14.5 feet above E. Bluff Street.

Grantee, its contractors or agents, may enter said premises for the purpose of construction and planning said construction, immediately upon the execution of this easement.

The Grantor also grants to the Grantee the right of ingress and egress to said easement area now owned by the Grantor for the purpose of constructing, reconstructing, maintaining, operating, repairing and removing said skywalk and the Grantee agrees to pay to the Grantor all damages

done to the land of the Grantor, by the Grantee or its employees, contractors or agents, while constructing, reconstructing, maintaining, removing or repairing said skywalk.

Dated: August _____, 2026

CITY OF CARROLL, IOWA

By _____
Gerald H. Fleshner, Mayor

ATTEST:

Laura A. Schaefer, City Clerk

STATE OF IOWA
CARROLL COUNTY, ss

This record was acknowledged before me on the _____ day of August, 2026, by Gerald H. Fleshner, as Mayor, Laura A. Schaefer, as City Clerk of the City of Carroll, Iowa.

Notary Public

m:\janet\word\dsb\0cities\carroll\kuemper-skywalk\doc\easement

MEMO TO: Honorable Mayor & City Council

FROM: Aaron Kooiker, City Manager



DATE: August 19, 2026

SUBJECT: Public Improvements West Golfview Subdivision

- Public Hearing on Proposed Plans, Specifications, Form of Contract and Estimated Cost
- Resolution Adopting Plans, Specifications, Form of Contract and Estimated Cost

On August 19, 2026, proposed plans, specifications, form of contract and estimated cost for the West Golfview Subdivision project were filed by JEO Consulting Group, Inc. The proposed plans, specifications, form of contract and estimated cost are generally described as follows:

PLANS

The plans detail removal and replacement of roadway pavement; sidewalk, grading, municipal utility replacement/construction including storm sewer, gravity sanitary sewer, force main sanitary sewer, lift station, electrical service and controls and other associated work within public right-of-way and city owned property adjacent to N. West St. from Carroll Municipal golf course, north to 30th St.

SPECIFICATIONS

The specifications further detail the improvements. The Specifications include the Statewide Urban Design and Specifications (SUDAS), Supplemental Specifications, Special Provisions and project specific specifications detailing lift station.

FORM OF CONTRACT

The form of contracts is the SUDAS standard sample contract form.

ESTIMATED COST

The estimated construction cost is \$1,389,640

RECOMMENDATION: Mayor and City Council conduction of the required public hearing and consideration of adoption of the plans, specifications, form of contract and estimated cost for the Public Improvements West Golfview Subdivision.

RESOLUTION NO. _____

RESOLUTION ADOPTING THE PLANS, SPECIFICATIONS, FORM OF CONTRACT AND ESTIMATED COST FOR PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION.

WHEREAS, plans, specifications, form of contract and estimated cost were filed for the construction of public improvements described in general as Public Improvements West Golfview Subdivision; and,

WHEREAS, a public hearing on the plans, specifications, form of contract and estimated cost for said improvements was conducted by the City Council of the City of Carroll, Iowa; and,

WHEREAS, the City Council has determined that the plans, specifications, form of contract and estimated cost are in the best interest of the City and the residents thereof.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carroll, Iowa, that said plans, specifications, form of contract and estimated cost are hereby adopted as the plans, specifications, form of contract and estimated cost for Public Improvements West Golfview Subdivision.

Passed and approved by the Carroll City Council this 24th day of August, 2026.

CITY COUNCIL OF THE
CITY OF CARROLL, IOWA

By: _____
Gerald H. Fleshner, Mayor

ATTEST:

By: _____
Laura A. Schaefer, City Clerk

ENGINEER'S FINAL OPINION OF PROBABLE COST		Date Prepared: August 19, 2026 			
PROJECT NAME: Carroll West Golfview Subdivision - 2026 Redesign					
PROJECT LOCATION: CARROLL, IOWA					
JEO PROJECT NO. 231132.00					
ESTIMATE OF QUANTITIES					
Item #	Description	Unit	Quantity	Unit Price	Total
BASE BID CONSTRUCTION COST					
1.	CLEARING AND GRUBBING	LS	1	\$5,000.00	\$5,000
2.	EXCAVATION, CLASS 10	CY	4,346	\$25.00	\$108,650
3.	SUBGRADE PREPARATION	SY	510	\$5.00	\$2,550
4.	SUBBASE, MODIFIED, 6 IN.	SY	640	\$5.00	\$3,200
5.	REMOVAL OF STRUCTURE, AREA INLET	EA	1	\$2,000.00	\$2,000
6.	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	CY	200	\$25.00	\$5,000
7.	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC (SDR 26), 8"	LF	1,151	\$115.00	\$132,365
8.	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	1,306	\$50.00	\$65,300
9.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	35	\$150.00	\$5,250
10.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	324	\$150.00	\$48,600
11.	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	25	\$350.00	\$8,750
12.	SANITARY SEWER SERVICE STUB, PVC (SDR 26), 4"	LF	180	\$55.00	\$9,900
13.	STORM SEWER, TRENCHED, HDPE, 8"	LF	36	\$25.00	\$900
14.	STORM SEWER, TRENCHED, RCP, 18"	LF	247	\$75.00	\$18,525
15.	REMOVAL OF STORM SEWER, 8"	LF	255	\$5.00	\$1,275
16.	PIPE APRON, RCP (TYPE 1), 18"	EA	1	\$1,250.00	\$1,250
17.	SUBDRAIN, B-1, 6"	LF	1,140	\$6.00	\$6,840
18.	SUBDRAIN CLEANOUT, B-1, 6"	EA	2	\$1,000.00	\$2,000
19.	SUBDRAIN CONNECTION, 6"	EA	4	\$750.00	\$3,000
21.	WATER SERVICE PIPE, POLYETHYLENE, 1"	LF	305	\$20.00	\$6,100
22.	WATER SERVICE CORPORATION, BALL STYLE, 1"	EA	1	\$300.00	\$300
23.	WATER SERVICE CURB STOP AND BOX, MINNEAPOLIS PATTERN, 1"	EA	1	\$800.00	\$800
24.	TAPPING VALVE ASSEMBLY, 8"x6"	EA	1	\$5,000.00	\$5,000
25.	FIRE HYDRANT ASSEMBLY	EA	1	\$7,500.00	\$7,500
26.	VALVE BOX EXTENSION	EA	1	\$1,200.00	\$1,200
27.	FIRE HYDRANT ADJUSTMENT	EA	1	\$2,000.00	\$2,000
28.	MANHOLE, SW-301, 48" DIA.	EA	3	\$17,500.00	\$52,500
29.	MANHOLE, SW-401, 48" DIA.	EA	1	\$7,500.00	\$7,500
30.	INTAKE, SW-501, 24"	EA	1	\$4,000.00	\$4,000
31.	INTAKE, SW-502, 60"	EA	1	\$8,000.00	\$8,000
32.	INTAKE, SW-512, 18"	EA	1	\$3,000.00	\$3,000
33.	MANHOLE ADJUSTMENT, MAJOR	EA	1	\$2,500.00	\$2,500
34.	CONNECT TO EXISTING MANHOLE	EA	1	\$3,500.00	\$3,500
35.	CURB AND GUTTER, 3.5' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	1,074	\$55.00	\$59,070
36.	CURB AND GUTTER, 8.75' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	66	\$125.00	\$8,250
37.	REMOVAL OF DRIVEWAY	SY	127	\$12.00	\$1,524
38.	SIDEWALK, PCC, 6 IN.	SF	9,942	\$12.00	\$119,304
39.	DRIVEWAY, GRANULAR, 4"	TON	35	\$75.00	\$2,625
40.	PAVEMENT REMOVAL	SY	1,168	\$12.00	\$14,016
41.	TEMPORARY TRAFFIC CONTROL	LS	1	\$5,000.00	\$5,000
42.	REMOVE AND REINSTALL TRAFFIC SIGNS	EA	4	\$300.00	\$1,200
43.	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, AND MULCHING, TYPE 1	AC	3.5	\$3,200.00	\$11,200
44.	SWPPP MANAGEMENT	LS	1	\$7,500.00	\$7,500
45.	STRAW WATTLE	LF	2,830	\$4.00	\$11,320
46.	STRAW WATTLE, REMOVAL	LF	2,830	\$1.00	\$2,830
47.	SILT FENCE	LF	198	\$4.00	\$792
48.	SILT FENCE, REMOVAL OF DEVICE	LF	198	\$1.00	\$198
49.	TURF REINFORCEMENT MATS, FLEXAMAT	SY	27	\$150.00	\$4,050
50.	INLET PROTECTION DEVICE, CURB INLET	EA	2	\$1,000.00	\$2,000
51.	INLET PROTECTION DEVICE, AREA INLET	EA	1	\$1,000.00	\$1,000
52.	MOBILIZATION	LS	1	\$97,000.00	\$97,000
53.	CONCRETE WASHOUT	LS	1	\$2,000.00	\$2,000
54.	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	1	\$335,000.00	\$335,000
55.	DEWATERING (BASE BID)	LS	1	\$150,000.00	\$150,000
56.	CONNECT TO EXISTING STORM DRAIN PIPING	LS	1	\$2,500.00	\$2,500
57.	CONNECT TO EXISTING STORM SEWER	EA	1	\$1,000.00	\$1,000
58.	WATER MAIN CROSSING	EA	1	\$16,000.00	\$16,000
Total Opinion of Construction Cost (Base Bid)					\$1,389,640

JEO Consulting Group Inc.'s (JEO) Opinions of Probable Cost provided for herein are to be made on the basis of JEO's experience and qualifications and represent JEO's best judgment. However, since JEO has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, JEO cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from Opinions of Probable Cost prepared by JEO.

ENGINEER'S FINAL OPINION OF PROBABLE COST		Date Prepared: August 19, 2026 			
PROJECT NAME: Carroll West Golfview Subdivision - 2026 Redesign					
PROJECT LOCATION: CARROLL, IOWA					
JEO PROJECT NO. 231132.00					
ESTIMATE OF QUANTITIES					
Item #	Description	Unit	Quantity	Unit Price	Total
BASE BID CONSTRUCTION COST					
1.	CLEARING AND GRUBBING	LS	1	\$5,000.00	\$5,000
2.	EXCAVATION, CLASS 10	CY	4,346	\$25.00	\$108,650
3.	SUBGRADE PREPARATION	SY	510	\$5.00	\$2,550
4.	SUBBASE, MODIFIED, 6 IN.	SY	640	\$5.00	\$3,200
5.	REMOVAL OF STRUCTURE, AREA INLET	EA	1	\$2,000.00	\$2,000
6.	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	CY	200	\$25.00	\$5,000
7.	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC (SDR 26), 8"	LF	1,151	\$115.00	\$132,365
8.	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	1,306	\$50.00	\$65,300
9.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	35	\$150.00	\$5,250
10.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	324	\$150.00	\$48,600
11.	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	25	\$350.00	\$8,750
12.	SANITARY SEWER SERVICE STUB, PVC (SDR 26), 4"	LF	180	\$55.00	\$9,900
13.	STORM SEWER, TRENCHED, HDPE, 8"	LF	36	\$25.00	\$900
14.	STORM SEWER, TRENCHED, RCP, 18"	LF	247	\$75.00	\$18,525
15.	REMOVAL OF STORM SEWER, 8"	LF	255	\$5.00	\$1,275
16.	PIPE APRON, RCP (TYPE 1), 18"	EA	1	\$1,250.00	\$1,250
17.	SUBDRAIN, B-1, 6"	LF	1,140	\$6.00	\$6,840
18.	SUBDRAIN CLEANOUT, B-1, 6"	EA	2	\$1,000.00	\$2,000
19.	SUBDRAIN CONNECTION, 6"	EA	4	\$750.00	\$3,000
21.	WATER SERVICE PIPE, POLYETHYLENE, 1"	LF	305	\$20.00	\$6,100
22.	WATER SERVICE CORPORATION, BALL STYLE, 1"	EA	1	\$300.00	\$300
23.	WATER SERVICE CURB STOP AND BOX, MINNEAPOLIS PATTERN, 1"	EA	1	\$800.00	\$800
24.	TAPPING VALVE ASSEMBLY, 8"x6"	EA	1	\$5,000.00	\$5,000
25.	FIRE HYDRANT ASSEMBLY	EA	1	\$7,500.00	\$7,500
26.	VALVE BOX EXTENSION	EA	1	\$1,200.00	\$1,200
27.	FIRE HYDRANT ADJUSTMENT	EA	1	\$2,000.00	\$2,000
28.	MANHOLE, SW-301, 48" DIA.	EA	3	\$17,500.00	\$52,500
29.	MANHOLE, SW-401, 48" DIA.	EA	1	\$7,500.00	\$7,500
30.	INTAKE, SW-501, 24"	EA	1	\$4,000.00	\$4,000
31.	INTAKE, SW-502, 60"	EA	1	\$8,000.00	\$8,000
32.	INTAKE, SW-512, 18"	EA	1	\$3,000.00	\$3,000
33.	MANHOLE ADJUSTMENT, MAJOR	EA	1	\$2,500.00	\$2,500
34.	CONNECT TO EXISTING MANHOLE	EA	1	\$3,500.00	\$3,500
35.	CURB AND GUTTER, 3.5' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	1,074	\$55.00	\$59,070
36.	CURB AND GUTTER, 8.75' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	66	\$125.00	\$8,250
37.	REMOVAL OF DRIVEWAY	SY	127	\$12.00	\$1,524
38.	SIDEWALK, PCC, 6 IN.	SF	9,942	\$12.00	\$119,304
39.	DRIVEWAY, GRANULAR, 4"	TON	35	\$75.00	\$2,625
40.	PAVEMENT REMOVAL	SY	1,168	\$12.00	\$14,016
41.	TEMPORARY TRAFFIC CONTROL	LS	1	\$5,000.00	\$5,000
42.	REMOVE AND REINSTALL TRAFFIC SIGNS	EA	4	\$300.00	\$1,200
43.	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, AND MULCHING, TYPE 1	AC	3.5	\$3,200.00	\$11,200
44.	SWPPP MANAGEMENT	LS	1	\$7,500.00	\$7,500
45.	STRAW WATTLE	LF	2,830	\$4.00	\$11,320
46.	STRAW WATTLE, REMOVAL	LF	2,830	\$1.00	\$2,830
47.	SILT FENCE	LF	198	\$4.00	\$792
48.	SILT FENCE, REMOVAL OF DEVICE	LF	198	\$1.00	\$198
49.	TURF REINFORCEMENT MATS, FLEXAMAT	SY	27	\$150.00	\$4,050
50.	INLET PROTECTION DEVICE, CURB INLET	EA	2	\$1,000.00	\$2,000
51.	INLET PROTECTION DEVICE, AREA INLET	EA	1	\$1,000.00	\$1,000
52.	MOBILIZATION	LS	1	\$97,000.00	\$97,000
53.	CONCRETE WASHOUT	LS	1	\$2,000.00	\$2,000
54.	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	1	\$335,000.00	\$335,000
55.	DEWATERING (BASE BID)	LS	1	\$150,000.00	\$150,000
56.	CONNECT TO EXISTING STORM DRAIN PIPING	LS	1	\$2,500.00	\$2,500
57.	CONNECT TO EXISTING STORM SEWER	EA	1	\$1,000.00	\$1,000
58.	WATER MAIN CROSSING	EA	1	\$16,000.00	\$16,000
Total Opinion of Construction Cost (Base Bid)					\$1,389,640
BID ALTERNATE #1 CONSTRUCTION COST					
8.	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	-1,306	\$50.00	-\$65,300
9.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	-35	\$150.00	-\$5,250
10.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	-324	\$150.00	-\$48,600
11.	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	-25	\$350.00	-\$8,750
53.	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	-1	\$335,000.00	-\$335,000
54.	DEWATERING (BASE BID)	LS	-1	\$150,000.00	-\$150,000
59.	SANITARY SEWER FORCE MAIN, TRENCHED, HDPE (SIDR 7), 2"	LF	1,306	\$40.00	\$52,240
60.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), HDPE (SIDR 7), 2"	LF	60	\$120.00	\$7,200
61.	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), HDPE (SIDR 7), 2"	LF	324	\$120.00	\$38,880
62.	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BID ALTERNATE #1)	LS	1	\$265,000.00	\$265,000
63.	DEWATERING (BID ALTERNATE #1)	LS	1	\$100,000.00	\$100,000
Total Opinion of Bid Alternate #1 Cost					-\$149,580
BID ALTERNATE #2 CONSTRUCTION COST					
20.	WATER SERVICE STUB, POLYETHYLENE, 3/4"	EA	9	\$3,500.00	\$31,500
Total Opinion of Bid Alternate #2 Cost					\$31,500
Total Opinion of Construction Cost with Bid Alternate #1 and #2					\$1,271,560

JEO Consulting Group Inc.'s (JEO) Opinions of Probable Cost provided for herein are to be made on the basis of JEO's experience and qualifications and represent JEO's best judgment. However, since JEO has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, JEO cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from Opinions of Probable Cost prepared by JEO.



JEO CONSULTING GROUP INC
JEO ARCHITECTURE INC

**PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR
PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CARROLL, IOWA**

Engineering
Architecture
Surveying
Planning
Funding

**PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR
PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CARROLL, IOWA**

OWNER CONTACT Aaron Kooiker
City of Carroll
627 N Adams St
Carroll, IA 51401
Phone: 712.792.1000
Email: akooiker@cityofcarroll.com

ENGINEER CONTACT Steven L. Locke, PE
JEO Consulting Group, Inc.
1615 SW Main St, Ste 205
Ankeny, IA 50023
Phone: 515.964.5310
Mobile: 515.291.0504
Email: slocke@jeo.com

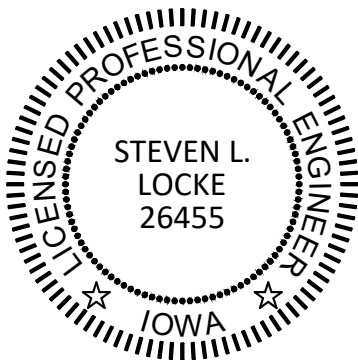
SUBMITTING ORGANIZATION(S) Organization legal name: JEO Consulting Group, Inc.
Contact information: 1937 N Chestnut St, Wahoo, NE 68066 – 800.723.8567

JEO PROJECT NO. 231132.00

CONTENTS

<u>Section No.</u>	<u>Title</u>
	Bidding and Contract Documents
00100	Notice to Bidders
00110	Notice of Public Hearing
00200	Instructions to Bidders
00300	Proposal
00400	Bid Bond
00500	Contract
00600	Performance, Payment, and Maintenance Bond
00700	Supplemental Specifications – City of Carroll
00900	Notice to Proceed
	Specifications
01 10 00	Special Provisions
26 00 00	Electrical Work
33 09 30	Instrumentation and Control
43 26 13	Submersible Chopper Pumps
	Reports
	Geotechnical Engineering Report

**PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CARROLL, IOWA
JEO PROJECT NO. 231132.00**



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)

8/18/2026

(date)

Printed or typed name: Steven L. Locke, PE

License Number: P26455

My license renewal date is December 31, 2026.

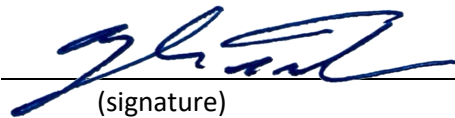
Pages or sheets covered by this seal:

Entire Specification except Division 26 and Section 33 09 30

PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CARROLL, IOWA
JEO PROJECT NO. 231132.00



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)

8/18/26
(date)

Printed or typed name: Zachary D. Trede, PE

License Number: P25585

My license renewal date December 31, 2026.

Pages or sheets covered by this seal:

Division 26 and Section 33 09 30

**NOTICE TO BIDDERS
FOR
PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CITY OF CARROLL, IOWA
JEO Project No. 231132.00 / QuestCDN No. 10323185
PUBLIC IMPROVEMENT PROJECT**

Sealed bids for the work comprising the improvement as stated below must be filed before 10:00 a.m. on September 21, 2026, in the office of the City Clerk, 627 N Adams St, Carroll, IA 51401. Bids received after the deadline for submission of bids as stated herein shall not be considered and shall be returned to the late bidder unopened.

Sealed proposals will be opened and bids tabulated at 10:00 a.m. on September 21, 2026, in the Council Chambers at City Hall for consideration by the City Council at its meeting on September 28, 2026.

Work on the improvement shall commence immediately upon approval of the contract by the City Council and be completed as stated below.

Copies of the contract documents are on file with the City of City of Carroll for examination by bidders. Complete digital project bidding documents are available at JEO's website at jeo.com at no charge. An optional paper set of project documents is available at no charge by contacting JEO Consulting Group, Inc. at afilipi@jeo.com. In order to bid the project, the contract documents must be issued directly by JEO Consulting Group, Inc. or QuestCDN to the bidder. The SUDAS Standard Specifications, 2026 Edition, as amended, are applicable to the project and can be purchased from the Institute for Transportation of Iowa State University, (515) 294-2869, or at www.iowasudas.org. Copies of the SUDAS Standard Specifications are not included in the contract documents but are incorporated by reference.

By virtue of statutory authority, preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required under Iowa statutes.

In accordance with Iowa statutes, a resident bidder shall be allowed a preference as against a nonresident bidder from a state or foreign country if that state or foreign country gives or requires any preference to bidders from that state or foreign country, including but not limited to any preference to bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to bidders or laborers from that state or foreign country. The preference allowed shall be equal to the preference given or required by the state or foreign country in which the nonresident bidder is a resident. In the instance of a resident labor force preference, a nonresident bidder shall apply the same resident labor force preference to a public improvement in this state as would be required in the construction of a public improvement by the state or foreign country in which the nonresident bidder is a resident.

General Nature of the Public Improvement:

Public Improvements West Golfview Subdivision 2026
Carroll, Iowa
JEO Project No. 231132.00

Installation of sanitary sewer main, lift station and valve vault, sanitary force main, storm sewer, manholes, concrete paving, and grading and erosion control.

Bidder shall not include sales tax in the bid. A sales tax exemption certificate will be available for all material purchased for incorporation in the project.

The City of Carroll, Iowa reserves the right to defer acceptance of any bid for a period of up to sixty (60) calendar days after receipt of bids and no bid may be withdrawn during this period. If requested, the bid security of unsuccessful bidders shall be promptly returned as soon as the successful bidder is determined or within thirty (30) days, whichever is sooner.

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 Carroll, Iowa 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 Carroll, Iowa 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 two years from and after acceptance of the contract.

The City of Carroll, Iowa, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, 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 contractor shall fully complete the project no later than July 1, 2027. Should the contractor fail to complete the work in this timeframe, liquidated damages of \$500 per calendar day will be assessed for work not completed within the designated contract term.

The City of Carroll, Iowa hereby reserves the right to reject any or all bids, to waive informalities, and to enter into such contract, or contracts, as it shall deem to be in the best interest of the Jurisdiction.

This notice is given by authority of the City of Carroll, Iowa.

Jerry Fleshner, Mayor
City of Carroll, Iowa

Posted to Website of: Master Builders of Iowa
Construction Update Network
Iowa League of Cities

**NOTICE OF PUBLIC HEARING
ON PROPOSED PLANS, SPECIFICATIONS,
FORM OF CONTRACT AND ESTIMATE
OF COST FOR
PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CITY OF CARROLL, IOWA
JEO Project No. 231132.00 / QuestCDN No. 10323185**

AND THE TAKING OF BIDS FOR SAID IMPROVEMENTS

Public notice is hereby given that a public hearing will be held by the City of Carroll, Iowa on the proposed contract documents (plans, specifications and form of contract) and estimate of cost for the improvements at its meeting at 5:15 p.m. on August 24, 2026, in the Council Chambers at City Hall, 627 N Adams St, Carroll, Iowa. At said time and place any interested person may appear and file objections to said plans, specifications, form of contract or estimate of cost of said improvements.

This notice is given by authority of the City of Carroll, Iowa.

Jerry Fleshner, Mayor
City of Carroll, Iowa

INSTRUCTIONS TO BIDDERS

Project Name: Public Improvements West Golfview Subdivision 2026

The work comprising the above referenced project shall be constructed in accordance with the 2026 Edition, as amended, of the SUDAS Standard Specifications and as further modified by supplemental specifications and special provisions 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, review the requirements of Division 1, General Provisions and Covenants, in particular the sections regarding proposal requirements, bonding, contract execution and insurance requirements. 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.

I. BID SECURITY

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. 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 or use of an electronic signature on the bid bond is not acceptable. Bid security other than said bid bond shall be made payable to City of Carroll, Iowa. "Miscellaneous Bank Checks" and personal checks, as well as "Money Orders" and "Traveler's Checks" issued by persons, firms, or corporations licensed under Chapter 533C of the Iowa Code, are not acceptable bid security.

II. 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 a 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. If the Jurisdiction provides envelopes for proposals and bid security, bidders shall be required to utilize such envelopes in the submission of their bids.
- 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 – Additional Requirements

The following proposal attachments must be completed and attached:

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

- Part G – Identity of Bidder (including the Bidder Status Form)

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 or electronic signatures 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 Bidder's 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: Authorization to Transact Business from the Labor Commissioner is included on the following page and can be used to assist Bidders in completing the Bidder Status Form.

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.

BEGINNING OF BID DOCUMENTS

PROPOSAL

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

PROPOSAL: PART A – SCOPE

The City of Carroll, Iowa, hereinafter called the “Jurisdiction,” 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 Jurisdiction, in the office of the City Clerk, at the prices hereinafter provided in Part C of the Proposal, for the following described improvements:

Public Improvements West Golfview Subdivision 2026

Carroll, Iowa

JEO Project No. 231132.00

Installation of sanitary sewer main, lift station and valve vault, sanitary force main, storm sewer, manholes, concrete paving, and grading and erosion control.

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 _____

ADDENDUM NUMBER _____

ADDENDUM NUMBER _____

ADDENDUM NUMBER _____

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 Attachment: Part C – Bid Items, Quantities, and Prices. In case of discrepancy, the Unit Bid Price governs. The quantities shown on the Proposal Attachment: Part C – Bid Items, Quantities, and Prices are approximate only but are considered sufficiently adequate for the purpose of comparing bids. The Total Construction Cost plus any alternates selected by the Jurisdiction shall be used only for comparison of bids. The Total Construction Cost including any Add-Alternates shall be used for determining the sufficiency of the bid security.

BASE BID CONTRACTS: The Bidder must provide any Bid Prices, any Alternate Prices, and the Total of the Base Bid plus any Add-Alternates on the Proposal Attachment: Part C – Bid Items, Quantities, and Prices.

The Total of the Base bid plus any Alternates selected by the Jurisdiction shall be used only for comparison of bids. The Total of the Base Bid plus any Add-Alternates shall be used for determining the sufficiency of the bid security.

PROPOSAL: PART D – GENERAL

The Bidder hereby acknowledges that the Jurisdiction, 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; and

The Bidder hereby agrees to:

1. Enter into a contract, if this Proposal is selected, in the form approved by the Jurisdiction; provide proof of registration with the Iowa Division of Labor in accordance with Chapter 91C of the Iowa Code; and furnish a performance, payment and maintenance bond; 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 Jurisdiction; to fully complete the project no later than July 1, 2027; and to pay liquidated damages for noncompliance with said completion provisions at the rate of five hundred dollars (\$500) for each calendar day thereafter that the work remains incomplete.

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 Jurisdiction; 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 – ADDITIONAL REQUIREMENTS

The Bidder hereby agrees to comply with the additional requirements listed below that are included in this Proposal and identified as proposal attachments:

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

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

Date

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, facsimiles, or
electronic signatures will not be accepted.

PROPOSAL ATTACHMENT: PART C – BID ITEMS, QUANTITIES, AND PRICES

This is a UNIT BID PRICE CONTRACT. The bidder must provide the Bid Price(s), any Alternate Price(s), and the Total of the Base Bid plus any Add-Alternates in this Proposal Attachment: Part C – Bid Items, Quantities, and Prices. The total of the base bid plus any alternates selected by the Jurisdiction shall be used only for comparison of bids. The total of the Base Bid plus any Add-Alternates shall be used for determining the sufficiency of the bid security.

GROUP A – BASE BID						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
1	2010-C	CLEARING AND GRUBBING	LS	1		
2	2010-E	EXCAVATION, CLASS 10	CY	4,346		
3	2010-G	SUBGRADE PREPARATION	SY	510		
4	2010-J	SUBBASE, MODIFIED, 6 IN.	SY	640		
5	2010-K-1	REMOVAL OF STRUCTURE, AREA INLET	EA	1		
6	3010-D	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	CY	200		
7	4010-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC (SDR 26), 8"	LF	1151		
8	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	1306		
9	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	35		
10	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	324		
11	4010-D-2	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	25		
12	4010-E	SANITARY SEWER SERVICE STUB, PVC (SDR 26), 4"	LF	180		
13	4020-A-1	STORM SEWER, TRENCHED, HDPE, 8"	LF	36		
14	4020-A-1	STORM SEWER, TRENCHED, RCP, 18"	LF	247		
15	4020-D	REMOVAL OF STORM SEWER, 8"	LF	255		
16	4030-B	PIPE APRON, RCP (TYPE 1), 18"	EA	1		
17	4040-A	SUBDRAIN, B-1, 6"	LF	1140		
18	4040-C-1	SUBDRAIN CLEANOUT, B-1, 6"	EA	2		
19	4040-D-1	SUBDRAIN CONNECTION, 6"	EA	4		
21	5010-E-1	WATER SERVICE PIPE, POLYETHYLENE, 1"	LF	305		
22	5010-E-2	WATER SERVICE CORPORATION, BALL STYLE, 1"	EA	1		

GROUP A – BASE BID						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
23	5010-E-3	WATER SERVICE CURB STOP AND BOX, MINNEAPOLIS PATTERN, 1"	EA	1		
24	5020-B	TAPPING VALVE ASSEMBLY, 8"X6"	EA	1		
25	5020-C	FIRE HYDRANT ASSEMBLY	EA	1		
26	5020-G	VALVE BOX EXTENSION	EA	1		
27	5020-I	FIRE HYDRANT ADJUSTMENT	EA	1		
28	6010-A	MANHOLE, SW-301, 48" DIA.	EA	3		
29	6010-A	MANHOLE, SW-401, 48" DIA.	EA	1		
30	6010-B	INTAKE, SW-501, 24"	EA	1		
31	6010-B	INTAKE, SW-502, 60"	EA	1		
32	6010-B	INTAKE, SW-512, 18"	EA	1		
33	6010-E-1	MANHOLE ADJUSTMENT, MAJOR	EA	1		
34	6010-G-1	CONNECT TO EXISTING MANHOLE	EA	1		
35	7010-E	CURB AND GUTTER, 3.5' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	1074		
36	7010-E	CURB AND GUTTER, 8.75' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	66		
37	7030-A-3	REMOVAL OF DRIVEWAY	SY	127		
38	7030-E	SIDEWALK, PCC, 6 IN.	SF	9942		
39	7030-H-3	DRIVEWAY, GRANULAR, 4"	TON	35		
40	7040-H	PAVEMENT REMOVAL	SY	1168		
41	8030-A	TEMPORARY TRAFFIC CONTROL	LS	1		
42	8040-I	REMOVE AND REINSTALL TRAFFIC SIGNS	EA	4		
43	9010-A	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, AND MULCHING, TYPE 1	AC	3.5		
44	9040-A-2	SWPPP MANAGEMENT	LS	1		
45	9040-F-1	STRAW WATTLE	LF	2830		
46	9040-F-2	STRAW WATTLE, REMOVAL	LF	2830		
47	9040-N-1	SILT FENCE	LF	198		
48	9040-N-3	SILT FENCE, REMOVAL OF DEVICE	LF	198		
49	9040-R	TURF REINFORCEMENT MATS, FLEXAMAT	SY	27		
50	9040-T-1	INLET PROTECTION DEVICE, CURB INLET	EA	2		
51	9040-T-1	INLET PROTECTION DEVICE, AREA INLET	EA	1		

GROUP A – BASE BID						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
52	11020-A	MOBILIZATION	LS	1		
53	11050-A	CONCRETE WASHOUT	LS	1		
54	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	1		
55	SPECIAL	DEWATERING (BASE BID)	LS	1		
56	SPECIAL	CONNECT TO EXISTING STORM DRAIN PIPING	LS	1		
57	SPECIAL	CONNECT TO EXISTING STORM SEWER	EA	1		
58	SPECIAL	WATER MAIN CROSSING	LS	1		
TOTAL GROUP A BASE BID CONSTRUCTION COST						
GROUP A – BID ALTERNATE #1 <i>Items 8, 9, 10, 11, 54, and 55 represent deductions of the corresponding Base Bid items. The unit prices for these deductions shall be the unit prices bid for the corresponding items in Group A – Base Bid. Bidders shall not provide separate unit prices for these deduction items.</i>						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
8		Deduct Base Bid Item 8 Amount				
9		Deduct Base Bid Item 9 Amount				
10		Deduct Base Bid Item 10 Amount				
11		Deduct Base Bid Item 11 Amount				
54		Deduct Base Bid Item 54 Amount				
55		Deduct Base Bid Item 55 Amount				
59	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, HDPE (SIDR 7), 2"	LF	1306		
60	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), HDPE (SIDR 7), 2"	LF	60		
61	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), HDPE (SIDR 7), 2"	LF	324		
62	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BID ALTERNATE #1)	LS	1		
63	SPECIAL	DEWATERING (BID ALTERNATE #1)	LS	1		
TOTAL GROUP A BID ALTERNATE #1 CONSTRUCTION COST (NET ADJUSTMENT)						
GROUP A – BID ALTERNATE #2						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
20	5010-D	WATER SERVICE STUB, POLYETHYLENE, 1"	EA	9		
TOTAL GROUP A BID ALTERNATE #2 CONSTRUCTION COST						

DO NOT WRITE IN SHADED AREAS

PROPOSAL ATTACHMENT: PART F

PROPOSAL: PART F – ADDITIONAL REQUIREMENTS

ITEM 1 – Bidder Status Form

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 nonresident 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: _____

City, State, Zip: _____

Dates: _____ / _____ / _____ to _____ / _____ / _____

Address: _____

City, State, Zip: _____

Dates: _____ / _____ / _____ to _____ / _____ / _____

Address: _____

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 _____, Iowa, as Obligee (hereinafter referred to as the "Jurisdiction"), in the penal sum of _____ dollars (\$ _____), or _____ % 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 Jurisdiction 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;

Public Improvements West Golfview Subdivision 2026
Carroll, Iowa
JEO Project No. 231132.00

Installation of sanitary sewer main, lift station and valve vault, sanitary force main, storm sewer, manholes, concrete paving, and grading and erosion control.

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 Jurisdiction 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 Carroll County, State of Iowa. If legal action is required by the Jurisdiction against the Surety or Principal to enforce the provisions of the bond or to collect the monetary obligation incurring to the benefit of the Jurisdiction, the Surety or Principal agrees to pay the Jurisdiction all damages, costs, and attorney fees incurred by enforcing any of the provisions of this Bond. All rights, powers, and remedies of the Jurisdiction hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to the Jurisdiction, by law. The Jurisdiction 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 the Jurisdiction 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 Jurisdiction 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:

PRINCIPAL:

Surety Company

By _____
Signature Attorney-in-Fact/Officer

Printed Name of Attorney-in-Fact/Officer

Company Name

Company Address

City, State, Zip Code

Company Telephone Number

Bidder

By _____
Signature

Printed Name

Title

Address

City, State, Zip Code

Telephone Number

1. **NOTE:** All signatures on this Bid Bond must be original signatures in ink; copies, facsimile, or electronic signatures 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.

END OF BID DOCUMENTS

CONTRACT NO. _____

CONTRACT

THIS CONTRACT, made and entered into at _____, Iowa this _____ day of _____, 20____, by and between the City of _____, Iowa, by its Mayor, upon order of its City Council, hereinafter called the "Jurisdiction," and _____, hereinafter called the "Contractor."

WITNESSETH:

The Contractor hereby agrees to complete the work comprising the below referenced improvement as specified in the contract documents, which are officially on file with the Jurisdiction, in the office of the City Clerk. This Contract includes all contract documents. The work under this Contract shall be constructed in accordance with the SUDAS Standard Specifications, 2026 Edition, as amended, and as further modified by the supplemental specifications and special provisions included in said contract documents, and the Contract Attachment: Item 1 – General, which is attached hereto. 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 Jurisdiction.

This Contract is awarded and executed for completion of the work specified in the contract documents for the bid prices shown on the Contract Attachment: Item 2 – Bid Items, Quantities, and Prices, which were proposed by the Contractor in its Proposal submitted in accordance with the Notice to Bidders and Notice of Public Hearing for the following described improvements:

Public Improvements West Golfview Subdivision 2026
Carroll, Iowa
JEO Project No. 231132.00

Installation of sanitary sewer main, lift station and valve vault, sanitary force main, storm sewer, manholes, concrete paving, and grading and erosion control.

The Contractor agrees to perform said work for and in consideration of the Jurisdiction'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 Jurisdiction; to fully complete the project no later than July 1, 2027; and to pay liquidated damages for noncompliance with said completion provisions at the rate of five hundred dollars (\$500) for each calendar day thereafter that the work remains incomplete.

IN WITNESS WHEREOF, the Parties hereto have executed this instrument, in triplicate, on the date first shown written.

CITY OF CARROLL, IOWA

CONTRACTOR

By _____
Jerry Fleshner, Mayor

Contractor

(Seal)
ATTEST:

By _____
Signature

Laura Schaefer, City Clerk

Title

FORM APPROVED BY:

Street Address

David Bruner, City Attorney

City, State, Zip Code

Telephone

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.

ALL PURPOSE ACKNOWLEDGMENT

STATE OF _____)

COUNTY OF _____) ss:

On this _____ day of _____,
20____, before me, the undersigned, a Notary
Public in and for said State, personally appeared

_____ to me personally known

OR

_____ who proved to me on the basis of
satisfactory evidence

to be the person(s) whose name(s) is/are subscribed
to the within instrument and acknowledged to me
that he/she/they executed the same in his/her/their
authorized capacity(ies) and that by his/her/their
signature(s) on the instrument the person(s) or the
entity upon behalf of which the person(s) acted
executed the instrument.

(Sign in Ink)

(Print/Type Name)

Notary Public in and for said State

My Commission expires _____, 20____

(Affix notary seal or stamp)

CAPACITY CLAIMED BY SIGNER:

_____ INDIVIDUAL

_____ CORPORATE
Title(s) of Corporate Officer(s):

_____ Corporate seal is affixed

_____ No corporate seal procured

_____ PARTNER(S):

_____ Limited Partnership

_____ General Partnership

_____ ATTORNEY-IN-FACT

_____ EXECUTOR(S) OR TRUSTEE(S)

_____ GUARDIAN(S) OR CONSERVATOR(S)

_____ OTHER _____

SIGNER IS REPRESENTING:

List name(s) of person(s) or entity(ies)

(Affix corporate seal, if applicable)

CONTRACT ATTACHMENT: ITEM 1 – GENERAL

None.

CONTRACT ATTACHMENT: ITEM 2 – BID ITEMS, QUANTITIES, AND PRICES

This Contract is awarded and executed for completion of the work specified in the contract documents for the bid prices tabulated below as proposed by the Contractor in its Proposal submitted in accordance with the Notice to Bidders and Notice of Public Hearing. All quantities are subject to revision by the Jurisdiction. Quantity changes that amount to 20% or less of the amount bid shall not affect the unit bid price.

GROUP A – BASE BID						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
1	2010-C	CLEARING AND GRUBBING	LS	1		
2	2010-E	EXCAVATION, CLASS 10	CY	4,346		
3	2010-G	SUBGRADE PREPARATION	SY	510		
4	2010-J	SUBBASE, MODIFIED, 6 IN.	SY	640		
5	2010-K-1	REMOVAL OF STRUCTURE, AREA INLET	EA	1		
6	3010-D	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	CY	200		
7	4010-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC (SDR 26), 8"	LF	1151		
8	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	1306		
9	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	35		
10	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	324		
11	4010-D-2	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	25		
12	4010-E	SANITARY SEWER SERVICE STUB, PVC (SDR 26), 4"	LF	180		
13	4020-A-1	STORM SEWER, TRENCHED, HDPE, 8"	LF	36		
14	4020-A-1	STORM SEWER, TRENCHED, RCP, 18"	LF	247		
15	4020-D	REMOVAL OF STORM SEWER, 8"	LF	255		
16	4030-B	PIPE APRON, RCP (TYPE 1), 18"	EA	1		
17	4040-A	SUBDRAIN, B-1, 6"	LF	1140		
18	4040-C-1	SUBDRAIN CLEANOUT, B-1, 6"	EA	2		
19	4040-D-1	SUBDRAIN CONNECTION, 6"	EA	4		
21	5010-E-1	WATER SERVICE PIPE, POLYETHYLENE, 1"	LF	305		
22	5010-E-2	WATER SERVICE CORPORATION, BALL STYLE, 1"	EA	1		
23	5010-E-3	WATER SERVICE CURB STOP AND BOX, MINNEAPOLIS PATTERN, 1"	EA	1		
24	5020-B	TAPPING VALVE ASSEMBLY, 8"X6"	EA	1		

GROUP A – BASE BID						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
25	5020-C	FIRE HYDRANT ASSEMBLY	EA	1		
26	5020-G	VALVE BOX EXTENSION	EA	1		
27	5020-I	FIRE HYDRANT ADJUSTMENT	EA	1		
28	6010-A	MANHOLE, SW-301, 48" DIA.	EA	3		
29	6010-A	MANHOLE, SW-401, 48" DIA.	EA	1		
30	6010-B	INTAKE, SW-501, 24"	EA	1		
31	6010-B	INTAKE, SW-502, 60"	EA	1		
32	6010-B	INTAKE, SW-512, 18"	EA	1		
33	6010-E-1	MANHOLE ADJUSTMENT, MAJOR	EA	1		
34	6010-G-1	CONNECT TO EXISTING MANHOLE	EA	1		
35	7010-E	CURB AND GUTTER, 3.5' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	1074		
36	7010-E	CURB AND GUTTER, 8.75' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	66		
37	7030-A-3	REMOVAL OF DRIVEWAY	SY	127		
38	7030-E	SIDEWALK, PCC, 6 IN.	SF	9942		
39	7030-H-3	DRIVEWAY, GRANULAR, 4"	TON	35		
40	7040-H	PAVEMENT REMOVAL	SY	1168		
41	8030-A	TEMPORARY TRAFFIC CONTROL	LS	1		
42	8040-I	REMOVE AND REINSTALL TRAFFIC SIGNS	EA	4		
43	9010-A	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, AND MULCHING, TYPE 1	AC	3.5		
44	9040-A-2	SWPPP MANAGEMENT	LS	1		
45	9040-F-1	STRAW WATTLE	LF	2830		
46	9040-F-2	STRAW WATTLE, REMOVAL	LF	2830		
47	9040-N-1	SILT FENCE	LF	198		
48	9040-N-3	SILT FENCE, REMOVAL OF DEVICE	LF	198		
49	9040-R	TURF REINFORCEMENT MATS, FLEXAMAT	SY	27		
50	9040-T-1	INLET PROTECTION DEVICE, CURB INLET	EA	2		
51	9040-T-1	INLET PROTECTION DEVICE, AREA INLET	EA	1		
52	11020-A	MOBILIZATION	LS	1		
53	11050-A	CONCRETE WASHOUT	LS	1		

GROUP A – BASE BID						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
54	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	1		
55	SPECIAL	DEWATERING (BASE BID)	LS	1		
56	SPECIAL	CONNECT TO EXISTING STORM DRAIN PIPING	LS	1		
57	SPECIAL	CONNECT TO EXISTING STORM SEWER	EA	1		
58	SPECIAL	WATER MAIN CROSSING	LS	1		
TOTAL GROUP A BASE BID CONSTRUCTION COST						
GROUP A – BID ALTERNATE #1						
Items 8, 9, 10, 11, 54, and 55 represent deductions of the corresponding Base Bid items. The unit prices for these deductions shall be the unit prices bid for the corresponding items in Group A – Base Bid. Bidders shall not provide separate unit prices for these deduction items.						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
8		Deduct Base Bid Item 8 Amount				
9		Deduct Base Bid Item 9 Amount				
10		Deduct Base Bid Item 10 Amount				
11		Deduct Base Bid Item 11 Amount				
54		Deduct Base Bid Item 54 Amount				
55		Deduct Base Bid Item 55 Amount				
59	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, HDPE (SIDR 7), 2"	LF	1306		
60	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), HDPE (SIDR 7), 2"	LF	60		
61	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), HDPE (SIDR 7), 2"	LF	324		
62	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BID ALTERNATE #1)	LS	1		
63	SPECIAL	DEWATERING (BID ALTERNATE #1)	LS	1		
TOTAL GROUP A BID ALTERNATE #1 CONSTRUCTION COST (NET ADJUSTMENT)						
GROUP A – BID ALTERNATE #2						
Item	Reference No.	Description	Unit	Quantity	Unit Price	Amount
20	5010-D	WATER SERVICE STUB, POLYETHYLENE, 1"	EA	9		
TOTAL GROUP A BID ALTERNATE #2 CONSTRUCTION COST						

DO NOT WRITE IN SHADED AREAS

SURETY BOND NO. _____

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 the City of Carroll, as Obligee (hereinafter referred to as "the Jurisdiction"), 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 Jurisdiction, bearing date the _____ day of _____, _____, hereinafter the "Contract") wherein said Contractor undertakes and agrees to construct the following described improvements:

Public Improvements West Golfview Subdivision 2026
Carroll, Iowa
JEO Project No. 231132.00

Installation of sanitary sewer main, lift station and valve vault, sanitary force main, storm sewer, manholes, concrete paving, and grading and erosion control.

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.

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 Jurisdiction from all outlay and expense incurred by the Jurisdiction by reason of the Contractor's default of 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 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 the Jurisdiction 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 of the Iowa Code, 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 all work ~~except new paving~~ to be performed under the Contract within the period of two year(s) 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; and
- B. To keep all work in continuous good repair; and
- C. To pay the Jurisdiction's reasonable costs of monitoring and inspection to assure that any defects are remedied, and to repay the Jurisdiction 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. Maintenance bond requirements shall not apply to the following: work that is not permanently incorporated into the project, pavement markings, seeding, sodding, and plant material and planting.

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 20% 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.
- D. That no provision of this Bond or of any other contract shall be valid that limits to less than five years 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 Jurisdiction 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 Jurisdiction's staff attorneys), and all costs and expenses of litigation as they are incurred by the Jurisdiction. It is intended the Contractor and Surety will defend and indemnify the Jurisdiction on all claims made against the Jurisdiction 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 Jurisdiction 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.

In the event the Jurisdiction incurs any "outlay and expense" in defending itself against 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 Jurisdiction 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 regarding this Bond, the parties agree that the venue thereof shall be Carroll County, State of Iowa. If legal action is required by the Jurisdiction to enforce the provisions of this Bond or to collect the monetary obligation incurring to the benefit of the Jurisdiction, the Contractor and the Surety agree, jointly, and severally, to pay the Jurisdiction all outlay and expense incurred therefor by the Jurisdiction. All rights, powers, and remedies of the Jurisdiction hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers, and remedies given to the Jurisdiction, by law. The Jurisdiction 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(s) 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.

PRINCIPAL:

Contractor

By _____
Signature

Title

SURETY:

Surety Company

By _____
Signature Attorney-in-Fact Officer

Printed Name of Attorney-in-Fact Officer

FORM APPROVED BY:

Attorney for Jurisdiction

Company Name

Company Address

City, State, Zip Code

Company Telephone Number

NOTE:

1. All signatures on this performance, payment, and maintenance bond must be original signatures in ink; copies, facsimile, or electronic signatures 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.

SUPPLEMENTAL SPECIFICATIONS

CITY OF CARROLL

The SUDAS Standard Specifications, 2026 Edition, are amended by the following modifications, additions and deletions. These are Supplemental Specifications and shall prevail over those published in the Standard Specifications. All provisions not so amended remain in full force and effect.

PROPOSAL REQUIREMENTS AND CONDITIONS

SS-1.09 PREPARATION OF THE PROPOSAL

- B. **Unit Price Attachment:** Unit price attachment option is allowed.

APPROVAL FOR AWARD AND AWARD OF CONTRACT

SS-1.01 ACCEPTANCE OR REJECTION OF PROPOSALS

Delete 1.01, E in its entirety and insert the following in its place:

- E. In the event the Bid specifies the use of materials, workmanship, methods, or equipment not in conformance with the Contract Documents, the Bid may be rejected. In the event the Bid was based on, but did not specify, the use of materials, workmanship, methods, or equipment not in conformance with the Contract Documents, the Bidder will be held responsible for furnishing or using materials, workmanship, methods, and equipment in conformity with the Contract Documents at no change in the Bid Price.

SCOPE OF WORK

SS-1.05 PLANS

Add the following to 1.05:

Jurisdiction shall furnish Contractor up to ten copies of the Contract Documents, excluding SUDAS Standard Specifications. Additional copies will be furnished upon request at the cost of reproduction.

SS-1.10 DISPUTED CLAIMS FOR EXTRA COMPENSATION

Delete 1.10, G in its entirety and insert the following in its place:

- G. **Determination of Board of Arbitration Final:** The findings or award, or both, of the arbitration board, if acceptable to both parties to the Contract, may become a basis for final payment. If the findings of the arbitration board are unacceptable to either party to the Contract, said findings may become the basis for further negotiation between the parties. In the event a solution agreeable to both parties has not been reached through the filing of a claim, through arbitration, or if arbitration has been denied, either party may resort to whatever other methods for resolving the claim are available to it, including rights and remedies provided in Chapter 679A Code of Iowa.

LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

PART 1 – LEGAL RELATIONS

SS-1.01 MUNICIPAL REGULATIONS, STATE AND FEDERAL LAWS AND REGULATIONS

Delete 1.01,C in its entirety and insert the following in its place:

C. Title VI/Non-Discrimination Assurances. During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project or program set forth in Appendix B of 49 CRF Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.

**SS-1.01 MUNICIPAL REGULATIONS, STATE AND FEDERAL LAWS AND REGULATIONS
(Continued)**

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

D. Title VI/Non-Discrimination Assurances. During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 - - 12189) as implemented by Department of Transportation regulations at 49 CFR Parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

**SS-1.01 MUNICIPAL REGULATIONS, STATE AND FEDERAL LAWS AND REGULATIONS
(Continued)**

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

SS-1.12 CONSENT TO JURISDICTION OF IOWA DISTRICT COURT OR FEDERAL DISTRICT COURT IN IOWA

Delete 1.12 in its entirety and insert the following in its place:

The Contractor agrees that any causes of action which accrue to it, or which by subrogation or assignment accrue to its sureties or insurers, arising out of or connected with this Contract shall be brought in the Iowa District Court in and for the County where the Jurisdiction is located or in the United States District Court for the Northern District of Iowa. Contractor further consents, on behalf of itself and its subrogees and assigns, to the jurisdiction of either the Iowa District Court in and for the County where the Jurisdiction is located or the United States District Court in and for the Northern District of Iowa, as to any causes of action brought against it arising out of this contract or any work performed under it by Contractor or its subcontractors, and further agrees, on behalf of itself, its subrogees and assigns, to waive any and all objections to the jurisdiction of said court as to any such cause of action.

PART 2 – RESPONSIBILITIES TO THE PUBLIC

SS- 2.06 TRAFFIC CONTROL

Add the following to 2.06:

C. Construction Parking Control:

1. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles and Jurisdiction's operations.
2. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
3. Prevent parking on or adjacent to access roads or in non-designated areas.

PART 3 – BONDS AND INSURANCE

SS- 3.02 INSURANCE REQUIREMENTS

Add the following to 3.02,C,2 immediately following “Medical Damage Limit (any one person)”:

Excess or Umbrella Liability: Contracts exceeding \$250,000.00

General Aggregate	\$5,000,000
Each Occurrence	\$5,000,000

SS – 3.05 PROPERTY INSURANCE

Delete 3.05, A in its entirety and insert the following in its place:

- A. The Jurisdiction, at the Jurisdiction’s option, may purchase and maintain property insurance, a.k.a. Builder’s Risk Insurance, in the amount of the initial bid amount, or in an amount equal to the estimated value of actual building construction, whichever is less, as well as applicable modifications thereto for the entire work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final acceptance of the work by the Jurisdiction. The insurance shall include interests of the Jurisdiction, the Contractor, subcontractors, and sub-subcontractors in the work. This property insurance covering the work will have a deductible of \$5,000 for each occurrence, or as stated in the special provisions, which will be the responsibility of the Contractor.

Delete 3.05, H in its entirety and insert the following in its place:

- H. Before an exposure to loss may occur, the Jurisdiction shall file with the Contractor a copy of a certificate or other evidence that includes insurance coverage required by this section. Each policy shall contain all generally applicable conditions, definitions, exclusions, and endorsements related to this project. Each policy shall contain a provision that the policy will not be cancelled or allowed to expire until at least 30 calendar days prior written notice has been given to the Contractor.

Delete 3.05, L in its entirety and insert the following in its place:

- L. The property insurance provided shall not require special endorsement for partial utilization by the Jurisdiction.

PROSECUTION AND PROGRESS

SS-1.13 BREACH OF CONTRACT

Add the following after 1.13,A, 10:

11. If there is no Jurisdiction Default, the Surety's obligation under the Bond shall arise after:
 - a. The Jurisdiction has notified the Contractor and the Surety that the Jurisdiction is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the Jurisdiction, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Jurisdiction's right, if any, subsequently to declare a Contractor Default; and
 - b. The Jurisdiction has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice; and
 - c. The Jurisdiction has agreed to pay the Balance of the Contract Price to:
 - 1) The Surety in accordance with the terms of the Contract;
 - 2) Another contractor selected pursuant to paragraph 12.3 to perform the Contract.
12. When the Jurisdiction has satisfied the conditions of paragraph 11 the Surety shall promptly, and at the Surety's expense, take one of the following actions:
 - a. Arrange for the Contractor, with consent of the Jurisdiction, to perform and complete the Contract; or
 - b. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - c. Obtain bids or negotiated proposals from qualified contractors acceptable to the Jurisdiction for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Jurisdiction and the contractor selected with the Jurisdiction's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the Jurisdiction the amount of damages as described in paragraph 14 in excess of the Balance of the Contract Price incurred by the Jurisdiction resulting from the Contractor Default; or
 - d. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances.
 - 1) After investigation, determine the amount for which it may be liable to the Jurisdiction and, as soon as practicable after the amount is determined, tender payment therefore to the Jurisdiction; or

MEASUREMENT AND PAYMENT

SS-1.05 PROGRESS PAYMENTS

Add the following after 1.05 A:

Payment may be made for materials and/or equipment not incorporated into the project if delivered and stored on site or off-site at a location agreed to by the Jurisdiction. Progress payment requests shall be accompanied by invoice and other documentation verifying that the materials and/or equipment are free of liens and covered by property insurance. All documentation must be acceptable to the Jurisdiction.

SS-1.13 BREACH OF CONTRACT (Continued)

- 2) Deny liability in whole or in part and notify the Jurisdiction citing reasons therefore.
13. If the Surety does not proceed as provided in paragraph 12 with reasonable promptness, the Surety shall be deemed to be in default on the Bond fifteen days after receipt of an additional written notice from the Jurisdiction to the Surety demanding that the Surety perform its obligations under the Bond, and the Jurisdiction shall be entitled to enforce any remedy available to the Jurisdiction. If the Surety proceeds as provided in paragraph 12.4 and the Jurisdiction refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Jurisdiction shall be entitled to enforce any remedy available to the Jurisdiction.
14. After the Jurisdiction has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraph 12.1, 12.2 or 12.3 above, then the responsibilities of the Surety to the Jurisdiction shall not be greater than those of the Contractor under the Contract, and the responsibilities of the Jurisdiction to the Surety shall not be greater than those of the Jurisdiction under the Contract. To a limit of the amount of this Bond, but subject to commitment by the Jurisdiction of the Balance of the Contract price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:
 - a. The responsibilities of the Contractor for correction of defective Work and completion of the Contract;
 - b. Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety; and
 - c. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
15. The Surety shall not be liable to the Jurisdiction or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on the Bond to any person or entity other than the Jurisdiction or its heirs, executors, administrators, or successors.
16. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

TRENCH EXCAVATION AND BACKFILL

PART 3 – EXECUTION

SS – 3.05 PIPE BEDDING AND BACKFILL

Delete 3.05, D, 3, c in its entirety and insert the following in its place:

- c. For Class III and Class IVA backfill materials, compact to at least 95% of Standard Proctor Density. Obtain required compaction within the soil moisture range of the specified percentage of Standard Proctor maximum dry density.

Delete 3.05, E, 4, c in its entirety and insert the following in its place:

- c. For Class III and Class IVA backfill materials, compact to at least 95% of Standard Proctor Density. Obtain required compaction within the soil moisture range of the specified percentage of Standard Proctor maximum dry density.

SANITARY SEWERS

PART 3 – EXECUTION

SS-3.02 GRAVITY SEWER INSTALLATION

Add the following after 3.02,B,7:

8. Install magnetic detectable conductor, brightly colored plastic covering, imprinted with "SANITARY SEWER" in large letters, in trench over sanitary sewer at a depth of 1½ to 2 feet below finished ground surface.

TESTING

PART 3 – EXECUTION

SS-3.02 VIDEO INSPECTION

Delete 3.02, A.1 in its entirety and insert the following in its place:

1. Unless otherwise specified in the contract documents, Jurisdiction shall conduct video inspection of all new and rehabilitated sanitary and storm sewers after all backfill and compaction operations are completed, but prior to paving.

SS-3.04 DEFLECTION TESTING

Delete 3.04,A in its entirety and insert the following in its place:

- A. Jurisdiction shall perform deflection tests on all flexible sanitary sewer mains, excluding ductile iron pipe. Jurisdiction shall perform deflection tests on all flexible storm sewer or culvert pipe 12 inches in diameter or greater.

PIPE AND FITTINGS

PART 2 – PRODUCTS

SS-2.01 WATER MAIN

A. Polyvinyl Chloride (PVC) Pipe:

Delete 2.01,A,1 in its entirety and insert the following in its place:

1. **Minimum Wall Thicknesses:**
 - a. **4-inch through 24-inch sizes:** DR 14
 - b. **Sizes over 24-inch:** As specified in the Contract Documents

SS-2.04 CONCRETE THRUST BLOCKS

Delete 2.04,C in its entirety and insert the following in its place:

- C. On all pipe sizes, restrained joints are to be used in addition to thrust blocks.

SS-2.05 PIPELINE ACCESSORIES

Delete 2.05,B,5 in its entirety and insert the following in its place:

5. **Tracer Wire Station.** Tracer wire station shall be Pro-Line TRAB, Trident TracerPit Test Station or approved equal.

PART 3 – EXECUTION

SS-3.01 PIPE INSTALLATION

Delete 3.01,A,8 in its entirety and insert the following in its place:

8. Install restrained joints and concrete thrust blocks (comply with Figure 5010.101) on all pipe sizes.

SS-3.03 ADDITIONAL REQUIREMENTS FOR PVC PIPE INSTALLATION

Add the following immediately following 3.03,C

- D. Install magnetic detectable conductor, brightly colored plastic covering, imprinted with "WATER" in large letters, in trench over watermain at a depth or 1½ to 2 feet below finished ground surface.

SS-3.09 WATER SERVICE STUB

Add the following immediately following 3.09.A

1. All installations of water service pipe and connections to the water system shall be made by a State-licensed plumber.

Delete 3.09,B in its entirety and insert the following in its place:

- B. Install 1-inch and smaller corporation valves tapped at 90 degrees above horizontal at a minimum distance of 18 inches from pipe bell or other corporation. Install 1½-inch and 2-inch corporation valves tapped 90 degrees above horizontal a minimum distance of 24 inches from pipe bell or other corporation.

SS-3.12 TESTING AND DISINFECTION

Add the following to 3.12:

Pipe restrained by connecting ends to existing pipe, fittings or valves shall meet the requirements of Section 5030, 3.04 Pressure and Leak Testing for the entire section tested.

VALVES, FIRE HYDRANTS AND APPURTENANCES

SS-2.02 FIRE HYDRANT ASSEMBLY

Delete 2.02,B in its entirety and insert the following in its place:

B. Manufacturer: Mueller, Model: Centurion or Clow, Model: Medallion

Delete 2.02,C,4 in its entirety and insert the following in its place:

4. Hose Nozzles: One, 4½ inches in diameter. Two, 2½ inches in diameter.

Delete 2.02,C,6 in its entirety and insert the following in its place:

6. Items to be Specified:

- a. Operating nut size: 1½ inches
- b. Pumper nozzle: 4½ inches
- c. Nozzle threads: National Standard
- d. Main valve opening size: 5¼ inches (minimum)

Delete 2.02,D,2 in its entirety and insert the following in its place:

- 2. Chrome yellow or Dandelion yellow to safety flange and black below flange; Bonnet and Nozzle Cap colors to be selected by Jurisdiction, Tnemec alkyd system for exterior exposure, or equal; surface preparation SSPC-SP6 commercial blast.

TESTING AND DISINFECTION

PART 3 - EXECUTION

SS-3.08 RE-DISINFECTION

Delete 3.08 in its entirety and insert the following in its place:

If the initial disinfection fails to produce satisfactory bacteriological results, or if other water quality is affected, flush the main again and reinitiate the sampling process. If the reinitiated sampling and testing process shows the presence of coliform organisms, re-chlorinate the main prior to flushing and sampling until satisfactory results are obtained.

STRUCTURES FOR SANITARY AND STORM SEWERS

PART 2 – PRODUCTS

SS-2.11 ADDITIONAL MATERIALS FOR SANITARY SEWER MANHOLES

Delete 2.11,B,1 in its entirety and insert the following in its place:

- 1.Exterior:** Provide bituminous or coal tar coating.

PART 3 – EXECUTION

SS-3.01 GENERAL REQUIREMENTS FOR INSTALLATION OF MANHOLES AND INTAKES

Delete 3.01,F,2,b in its entirety and insert the following in its place:

- b. Apply engineering fabric wrap meeting the requirements of Iowa DOT 4196.01B to storm sewer manhole joints.

Add the following immediately following 3.01,J.3:

4. Two-piece Castings: Attach the casting frame to the structure with four anchor bolts.

PORTLAND CEMENT CONCRETE PAVEMENT

PART 3 - EXECUTION

SS-3.07 QUALITY CONTROL

Amend 3.07A by adding the following:

With approval of Engineer, Hardened Concrete Strength may be tested for acceptance by beam or cylinder testing. In addition to other requirements of this Part, the following shall apply.

Table 7010.02.1: Age and Tested Strength of Pavement

Class of Mix	Type of Cement	Age	Minimum Compressive Strength (psi)	Minimum Flexural Strength Center Point (psi)
C	Type I	28 Days	4,000	550
M	Type I	7 Days	4,000	550

HOT MIX ASPHALT PAVEMENT

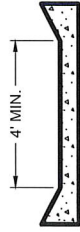
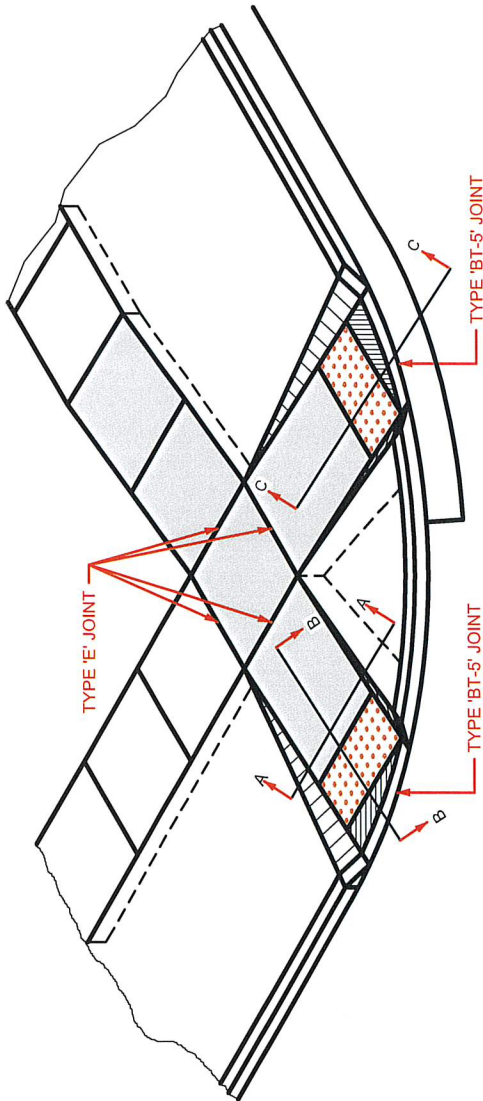
PART 1 - GENERAL

SS-1.03 SUBMITTALS

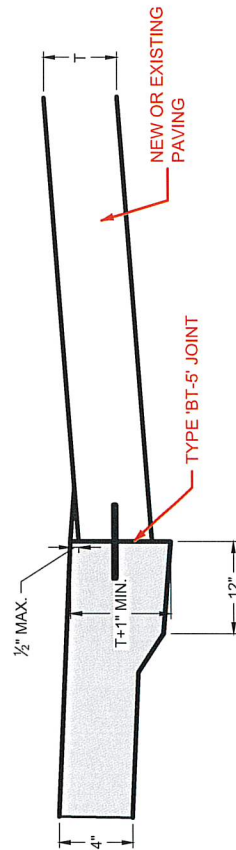
Delete 1.03,D in its entirety and insert the following in its place:

- D. Provide material certifications to Engineer.

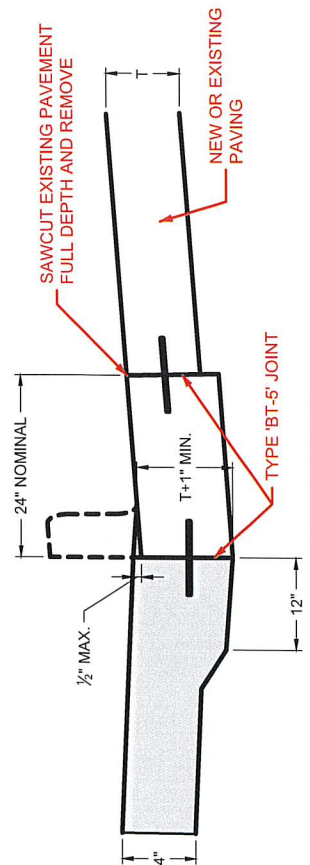
NOTE: LONGITUDINAL JOINT LINE IS LOCATED 36" OR LESS FROM THE BACK OF CURB. EXTEND BOXOUT TO JOINT LINE. FULL DEPTH SAW CUT SHALL STILL BE REQUIRED.



SECTION A-A



SECTION B-B



SECTION C-C



REVISION	FIGURE 7030.211.1-SS
1	10-16-12
SHEET 1 OF 1	

CURB RAMPS

PAVEMENT REHABILITATION

PART 3 - EXECUTION

SS-3.05 MILLING

Delete 3.05,D in its entirety and insert the following in its place:

- D. Load cuttings directly into dump trucks and remove the remaining small cuttings and debris from the street. Sweep the scarified surface with a rotary broom before opening to traffic. Unless otherwise specified in the Contract Documents, all materials removed shall be the property of the Jurisdiction. Point of delivery shall be as directed by Engineer.

Jurisdiction:	City of Carroll, Iowa	JEO Project No:	231132.00
Contractor:		Effective Date of Contract:	
Engineer:	JEO Consulting Group, Inc.		
Project:	Public Improvements West Golfview Subdivision 2026		

Before starting any Work at the Site, Contractor must comply with the following:
[Note any access limitations, security procedures, or other restrictions]

Copy: Engineer

SPECIAL PROVISIONS

The following Special Provisions amend or supplement the current SUDAS Standard Specifications. All provisions not so amended or supplemented remain in full force and effect.

The SUDAS Standard Specifications can be purchased from the Institute for Transportation at Iowa State University, (515) 294-2869), or at www.iowasudas.org.

SECTION 01 10 00
SPECIAL PROVISIONS

PART 1 - GENERAL

These Special Provisions amend or supplement the following Specifications and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Special Provisions will have the meanings indicated in the Specifications and Contract Documents. Additional terms used in these Special Provisions have the meanings indicated below, which are applicable to both the singular and plural thereof.

1.01 PROJECT CONTACT

- A. Owner's Primary Contact:
 - 1. Name: Aaron Kooiker
 - 2. Address: 627 N Adams St, Carroll, IA 51401
 - 3. Phone Number: 712.792.1000
 - 4. Email: akooiker@cityofcarroll.com
- B. Engineer's Primary Contact:
 - 1. Name: Noah Dryden, PM
 - 2. Address: 724 Simon Ave, Carroll, IA 51401
 - 3. Phone Number: 712.792.9711
 - 4. Cell Number: 712.790.0133
 - 5. Email: ndryden@jeo.com

1.02 CONTRACT DESCRIPTION

- A. In the event that the Owner selects Bid Alternate #1 for construction, all changes listed under Bid Alternate #1 will be incorporated into the contract documents. Individual components of Bid Alternate #1 will not be selected without the remaining changes taking affect as well.

1.03 EXTENDED LEAD TIMES

- A. Substantial and final completion times are established in the contract documents. However, the Owner and Engineer recognize that the current construction climate has resulted in extended lead times on various types of equipment and materials. If an extended lead time for a specific type of equipment or material is anticipated to result in either a substantial or final completion date that is beyond the allowed timeframe, the Contractor shall immediately notify the Owner and Engineer with written documentation showing the anticipated delay and proof the equipment or material has been ordered in a timely fashion. If the equipment or material which is causing the timeframe exceedance is ordered in a timely fashion and the resultant delay is outside of the Contractor's control, the Owner and Engineer will not pursue liquidated damages for the portion of the timeframe exceedances directly related to the extended lead time for the specified equipment or material.

1.04 CONTRACT DRAWINGS AND SPECIFICATIONS

- A. The Drawings, Specifications, Proposal, Special Provisions and all supplementary documents are intended to describe the complete work and are essential parts of the Contract. All requirements occurring in any of them are binding.
- B. In cases where there is a discrepancy in the contract documents.
 - 1. Written dimensions take precedence over scaled dimensions on Drawings.
 - 2. Larger scale Drawings take precedence over smaller scale Drawings.
 - 3. Section 01 10 00, Special Provisions, take precedence over the Drawings.
 - 4. Section 01 10 00, Special Provisions, take precedence over other Specification Sections.
- C. Referenced Sections:
 - 1. SUDAS Standard Specifications (Iowa Statewide Urban Design and Specifications), 2026 Edition and any Supplemental Specifications and Provisions. The specifications shall be an integral part of this Project Specifications. The specifications may be viewed at www.iowasudas.org.
 - 2. City of Carroll Supplemental Specifications. Supplemental Specifications shall prevail over those published in the SUDAS Standard Specifications and be an integral part of this project.
- D. At least one copy of all Drawings and Specifications shall be maintained by Contractor at the project site and these shall be accessible at all times to Owner and Engineer.

1.05 PERMITS

- A. Iowa DNR Construction Permit: A permit is being processed by the Iowa Department of Natural Resources. A copy of the permit will be presented to the successful bidder, when the approval has been issued. Contractor shall construct the proposed improvements in strict compliance to the instructions and provisions of the permit.
- B. NPDES Construction Stormwater Permit:
 - 1. A Stormwater Pollution Prevention Plan (SWPPP) for this project has already been developed by the Owner, excluding the provisions for groundwater discharge.
 - 2. The Contractor shall be responsible for all documentation, coordination, and compliance with the provisions of General NPDES Permit Number 9 for dewatering activities.
 - 3. Due to the nature and area of this construction project, Owner is required to request discharge authorization for the stormwater discharge from the construction site under the General NPDES Permit Number 2. The Owner shall publish the Public Notice of Storm Water Discharge, file a Notice of Intent (NOI), pay the storm water general permit application fees (3-year), and shall secure authorization under the General Permit Number 2. It will be the responsibility of Contractor and all sub-Contractors to maintain the site according to the permit requirements and the SWPPP.
 - a. During construction, Contractor will be responsible for inspecting the erosion control measures and record keeping per the requirements of the NPDES Permit duration of the project.

- b. Contractor shall post the Storm Water Pollution Prevention Plan (SWPPP) in a conspicuous place on the project site. This posting shall be available for public viewing during normal business hours and shall have the contact numbers for Contractor.
 - c. Contractor shall be responsible for maintaining and controlling all erosion control devices throughout the duration of the project, in strict compliance with the conditions of the permit.
 - d. Contractor shall conduct weekly reviews of the erosion control measures and make any repairs or adjustments necessary to satisfy the requirements of the permit.
 - e. Copies of all reports, daily reports and forms recorded by Contractor shall be maintained on the site. A copy of these documents shall be provided to Owner through Engineer on a monthly basis, along with monthly Partial Pay Request. Pay requests will not be processed by Owner without copies of these documents.
 - f. Contractor shall be responsible for removal and disposal of all temporary erosion control measures from the site after final stabilization measures are in place and satisfactory vegetation has been established.
 - g. Contractor shall notify Owner once permanent vegetation has been established and the Notice of Discontinuation can be filed with the DNR.
4. Contractor is responsible for securing all electrical permits required per local and state jurisdiction. Refer to Section 26 00 00 for full electrical permitting requirements.

1.06 CODE COMPLIANCE

- A. All proposed work shall comply with the National Plumbing Code, National Electrical Code, International Building Code and all applicable state and local codes.

1.07 INCIDENTAL AND SUBSIDIARY ITEMS OF WORK

- A. Any items or materials called for on the Drawings or in these Specifications that are not measured and paid for directly shall be considered incidental and subsidiary to other items of work for which direct payment is made.

1.08 PROJECT CONDITIONS

- A. Maintain Continuous Water Service:
 - 1. Whenever possible, Contractor shall schedule and conduct all work in a sequence, which will provide continuous operation of the water system. Contractor's schedule of planned operations shall outline compliance with this requirement.
 - 2. When it is necessary to temporarily interrupt water service to any user:
 - a. Contractor shall limit shutdown to 4 hours maximum time.
 - b. Contractor shall make arrangement with Owner at least 48 hours in advance of any shutdown.
 - c. Contractor shall get approval of any shutdown from Owner at least 48 hours in advance of the shutdown.

- d. Contractor shall give notification to any effected user at least 48 hours in advance of the shutdown. Such notification shall be closely coordinated with Owner.

1.09 RIGHT-OF-WAY/EASEMENTS

- A. The project shall be constructed within limited easements, right-of-way and property owned by Owner, as shown on the Drawings.
- B. Contractor shall confine all operations to areas within the limited easements, right-of-way and property owned by Owner, as shown on the Drawings.
- C. Areas outside of the limited easements, right-of-way and existing property owned by Owner, as shown on the Drawings, are not to be disturbed.
- D. Contractor shall exercise all reasonable care in any activities that are conducted in the areas of right of way and easement, to minimize damages to the property. Contractor's attention is specifically called to any buildings, trees, fences, drainage structures and other miscellaneous appurtenances to the property.
- E. Contractor shall be solely and completely responsible for any damages caused by Contractor, Contractor's employees, sub-Contractors, suppliers or agents to any areas outside of the limited easements, right-of-way and existing property owned by Owner, as shown on the Drawings.
- F. Contractor shall be solely responsible for obtaining and shall pay all costs in connection with any additional work area, storage site, access to the site, or temporary right-of-way, which may be required for proper completion of the work.
- G. Staging Area: Contractor may use any area within the limits of construction for storage of materials and equipment as long as traffic and driveway access are not impacted in any way. Contractor may otherwise obtain an off-site location for storage of materials and equipment at their own expense.

1.10 RECORD DRAWINGS

- A. Contractor shall provide two (2) copies of the record drawings/as-builts clearly marking the field adjustments, additions/deletions to the Drawings, and locations of all buried piping/infrastructure and critical elevations of same.

1.11 POWER

- A. All power for lighting, construction use, operation of Contractor's plant or equipment, or for any other use by Contractor, shall be provided by Contractor at his sole cost and expense and shall be considered incidental and subsidiary to other items of work for which direct payment is made. No separate payments will be made for this work.

1.12 MONTHLY PROGRESS MEETINGS

- A. Monthly progress review meetings will be held during the construction period at a time and date set by Owner through Engineer. Location will be determined at the preconstruction meeting. Attendance by Contractor or his/her authorized representative is mandatory.

1.13 TEMPORARY FACILITIES

- A. Temporary Fencing will be required around open excavations.
- B. Temporary facilities shall be considered incidental and subsidiary to other items of work for which direct payment is made. No separate payments will be made for this work.

1.14 DEWATERING OF SITE

- A. Portions of the Work are anticipated to require pumping and dewatering to complete the work as specified and as indicated on the Drawings. It is the intent of the specifications that such pumping and dewatering operation shall be the obligation of Contractor.
- B. All project costs associated with pumping and dewatering shall be included in the Dewatering bid item. Dewatering costs shall be considered final and will not be measured.
- C. Contractor will be responsible for design, construction, electrical service and materials, operation, maintenance and permitting of any dewatering system necessary for the successful construction and completion of the project.
- D. Contractor shall review the geotechnical report and conduct such investigation as is necessary to satisfy themselves of the groundwater conditions that will be encountered during the construction of the Work.

1.15 SPECIAL BID ITEMS

- A. Group A – Base Bid:
 - 1. Lift Station, Complete with Site Electrical & Controls (Base Bid)
 - a. Measurement: Lump sum item; no measurement will be made.
 - b. Payment: Payment will be at the lump sum price.
 - c. Includes: Lump sum price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary for a complete base bid working lift station as shown in the Drawings; including the wet well and valve vault construction, pumps, piping, fittings, valves, high performance coatings, electrical service, panels, controls, and appurtenances.
 - 2. Dewatering (Base Bid)
 - a. Measurement: Lump sum item; no measurement will be made.
 - b. Payment: Payment will be at the lump sum price.
 - c. Includes: Lump sum price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary for design, construction, electrical service and materials, operation, maintenance and permitting of any dewatering system necessary for the successful construction and completion of the base bid project.
 - 3. Connect to Existing Storm Drain Piping
 - a. Measurement: Lump sum item; no measurement will be made.
 - b. Payment: Payment will be at the lump sum price.
 - c. Includes: Lump sum price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary for construction of an 8" HDPE piping connection from the existing drain piping to the proposed concrete intake structure as shown on the Drawings.
 - 4. Connect to Existing Storm Sewer
 - a. Measurement: Each connection made to an existing storm sewer will be counted.

- b. Payment: Payment will be made at the unit price for each sewer connection.
 - c. Includes: Unit price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary to connect to existing storm sewers with proper pipe connection materials and appurtenances as necessary.
 - 5. Water Main Crossing Under Storm Sewer
 - a. Measurement: Each water main crossing under storm sewer will be counted.
 - b. Payment: Payment will be at the unit price for each water main crossing under storm sewer.
 - c. Includes: Unit price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary for demolition and removal of the existing water main necessary to construct the water main crossing and construction of the water main crossing under storm sewer as shown on the Drawings.
- B. Group A – Bid Alternates:
 - 1. Lift Station, Complete with Site Electrical & Controls (Bid Alternate #1)
 - a. Measurement: Lump sum item; no measurement will be made.
 - b. Payment: Payment will be at the lump sum price.
 - c. Includes: Lump sum price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary for a complete bid alternate #1 working lift station as shown in the Drawings; including the wet well and air release valve vault, pumps, piping, fittings, valves, high-performance coatings, concrete pad and pier, additional aggregate surfacing, electrical service, panels, controls, and appurtenances.
 - 2. Dewatering (Bid Alternate #1)
 - a. Measurement: Lump sum item; no measurement will be made.
 - b. Payment: Payment will be at the lump sum price.
 - c. Includes: Lump sum price includes, but is not limited to, all materials, equipment, labor, and furnishings necessary for design, construction, electrical service and materials, operation, maintenance and permitting of any dewatering system necessary for the successful construction and completion of the base bid project as modified by the changes incorporated as part of selecting Bid Alternate #1.

PART 2 - PRODUCTS

The following information in PART 2 - PRODUCTS is provided to identify specific product selections required for this project and/or to augment requirements of products that may be specified in later specification sections.

2.01 CONCRETE

- A. All concrete shall be Type C, per Carroll Supplemental Specifications.

2.02 GRAVITY SANITARY SEWER AND STORM SEWER PIPE BEDDING

- A. A minimum of 12" of Class A material shall be placed below all gravity sanitary and storm sewer piping.

2.03 SANITARY SEWER MANHOLES

- A. Provide 2 coats field applied damp-proofing or shop applied damp-proofing.
- B. Provide exterior manhole wrap at all joints.
- C. A minimum 12" of Class A material shall be placed below all manhole structures. A geogrid (Tensor BX1100, Mirafi BXG 110, or equal) shall be placed below the Class A material.
- D. The proposed sanitary sewer manholes, lift station wet well, and lift station valve vault shall include footings in conformance with the following minimum requirements to account for buoyancy:

1. Manhole Footing Requirements

Structure	Minimum Footing Extension (in.)	Minimum Footing Thickness (in.)
SAN MH-1	12	24
SAN MH-2	12	24
SAN MH-3	12	24

2. Lift Station Footing Requirements (Base Bid)

Structure	Minimum Footing Extension (in.)	Minimum Footing Thickness (in.)
Lift Station Wet Well	24	30
Lift Station Valve Vault	16	12

3. Lift Station Footing Requirements (Bid Alternate #1)

Structure	Minimum Footing Extension (in.)	Minimum Footing Thickness (in.)
Lift Station Wet Well	24	18

2.04 INSIDE DROP BOWL

- A. General
- Inside drop bowl shall facilitate the drop of sewer flow within a manhole structure while permitting easy inspection and cleaning without need to enter the structure.
 - Drop bowls shall be made of materials that have extremely high resistance to sewer acids while providing very smooth, low maintenance assemblies.
 - Nuts, bolts, supports, and anchor bolts shall be made of stainless steel.
 - Bowl size to be determined based on incoming pipe sizes and flow rates.
 - Connection from drop bowl to drop pipe shall be accomplished with Fernco flexible coupling.
 - Force line hood to be provided where indicated on the drawings.

01 10 00-7

7. Installation
 - a. Inside drop bowl shall be installed in accordance with manufacturer's installation instructions.
 - b. Trim incoming pipe so that 1-2" of pipe protrudes into the manhole.
 - c. Center drop bowl directly under incoming pipe, allowing approximately 1" vertical clearance between pipe and bowl.
 - d. Attach drop bowl to manhole with 3/8" diameter stainless steel anchors at frequency recommended by the manufacturer.
- B. Drop bowl assemblies shall be made of composite fiberglass material with the following physical characteristics:
 1. Physical Properties of Unsaturated Polyester Resin Reinforced Laminates

a.	(33 / 66 Glass / Resin 1.5 oz mat Laminates .125 in.)	
b.	Flexural Strength (psi) ASTM D-790	27,100
c.	Flexural Modulus (psi) ASTM D-790	1,157,000
d.	Tensile Strength (psi) ASTM D-638	16,700
e.	Tensile Modulus (psi) ASTM D-638	1,457,000
f.	Tensile Elongation (%) ASTM D-638	1.54
g.	Hardness, Barcol 934.1 ASTM D-2583	55 - 60
 2. Physical Properties of ISO Gel Coat

a.	Room Temperature Cured for 45 hours	
(1)	Tensile Strength	6,218
(2)	Elongation, %	2.70
(3)	Flexural Strength (psi)	11,363
(4)	Heat Distortion, °F	0.544 x 10 ⁶
- C. Acceptable Manufacturers
 1. RELINER / Duran Inc.

2.05 FLANGED PIPING & FITTINGS

- A. Ductile Iron Pipe (DIP): Pressure Class 350 with flanged joints. Pipe must meet all requirements of AWWA C151 and flanged joints must meet all requirements of AWWA C110.
- B. General - Pipe and Fittings:
 1. Exterior Coating: See Part 2.07 – HIGH PERFORMANCE COATINGS
 2. Interior Coating: Standard cement lining with seal coat, ANSI/AWWA C104.
 3. Joints: ANSI/AWWA C111, flanged joint.
 4. Bolts and Nuts: Stainless steel with anti-seize lubricant
- C. Fittings: ANSI/AWWA C111 and ANSI/AWWA C153
 1. All fittings shall have a minimum pressure rating of 250 psi.

2.06 SANITARY SEWER VALVES

- A. Gate Valves:
 1. Shall meet the requirements of ANSI/AWWA C 509.

2. All valves shall be by same manufacturer.
 3. Cast iron or ductile iron body, bonnet and stuffing box; resilient-wedge type; non-rising stems.
 4. Bolts and Nuts: Stainless steel.
 5. Valve Ends: Flanged.
 6. Wedge: Cast iron or ductile iron; resilient coated.
 7. Seals: Synthetic rubber O-rings.
 8. Operator:
 - a. Valve shall open by turning the operator to the left (counter clockwise).
 - b. Gate Valves located in the valve vault shall have a top mounted handwheel.
 9. Coating: ANSI/AWWA C 550 epoxy coating; inside and outside of body, bonnet and stuffing box.
 10. Pressure Rating: 200 psi.
- B. Check Valves:
1. Shall meet the requirements of ANSI/AWWA C508.
 2. All valves shall be by same manufacturer.
 3. Cast iron or ductile iron body, bonnet, and disc; resilient-seated type.
 4. Bolts and Nuts: Stainless steel.
 5. Valve Ends: Flanged.
 6. Valve shall have an outside weighted lever.
 7. Orientation: Standard weight and lever placement for horizontal piping installation
 8. Coating: ANSI/AWWA C550 epoxy coating; inside and outside of body and bonnet.
 9. Pressure Rating: 175 psi
- C. Quick Coupler and Cap
1. Cam and Groove Hose Connection Fitting:
 - a. Location: Lift Station Valve Vault
 - b. Function: Emergency pump by-pass connection
 - c. Description: Cam and groove, male adapter x male NPT
 - d. Material: Stainless Steel
 2. Cam and Groove Lockable Dust Cap:
 - a. Description: Cam and groove, female
 - b. Material: Stainless Steel
- D. Flap Valve
1. The flap valve shall be designed to mount to a pipe flange.
 2. The valve shall be constructed with a 10-degree offset from vertical to ensure positive closure.

3. Flap valve shall be of all stainless steel construction with resilient neoprene rubber seat face.
4. Acceptable Manufacturer's
 - a. Troy Valve
 - b. Or Equal

2.07 HIGH PERFORMANCE COATINGS

- A. The following coatings shall be applied to all non-stainless steel metal and non-aluminum surfaces of materials and equipment that will be exposed within or above the lift station wet well or valve vault structures:
 1. The factory prime coating shall be one coat of Tnemec Series 1 primer to bare metal surfaces applied at a dry film thickness of 2.5 to 3.0 mils.
 2. Surface prep to SSPC-SP1 (if necessary) and then surface prep to SSPC-SP12.
 3. The field intermediate coat and final coats for immersion service equipment shall be two complete coat of Tnemec Series N140 applied at a dry film thickness of 4.0 to 6.0 mils.

2.08 STAINLESS STEEL PIPE SUPPORTS

- A. Contractor shall furnish and install sufficient pipe hangers and supports for all above grade piping within the lift station in accordance with the Drawings and these specifications.
- B. Not all pipe hangers and supports are necessarily shown in the Drawings. Contractor shall provide all hangers and supports as necessary.
- C. Design Requirements
 1. All pipe hangers and supports used in and around wastewater environments shall be made of stainless steel.
 2. Supports shall be capable of supporting the pipe for all service and testing conditions.
 3. Supports shall allow free expansion and contraction of the piping to prevent excessive stress resulting from service and testing conditions or from weight transferred from the piping or attached equipment.
 4. Design supports and hangers to allow for proper pitch of pipes.
 5. Design materials of construction and installation of pipe hangers, supports, guides, restraints, and anchors:
 - a. ANSI B31.3.
 - b. MSS SP-58 and SP-69.
 6. Check all physical clearances between piping, support system, and structure.
 - a. Provide for vertical adjustment after erection.
 7. Pipe Support Schedule
 - a. Provide at least one support for each length of pipe at each change of direction and at each valve.
 - b. Space non-submerged supports approximately every 4 FT.
 - c. Space submerged supports (below HWL elevation) every 18-IN.

2.09 STAINLESS STEEL PIPING

- A. Pipe & Fittings
 - 1. Schedule 40S: ASTM A312/A312M, Type 304 seamless, pickled and passivated.
- B. Joints
 - 1. Threaded Joints: NPT taper pipe threads in accordance with ASME B1.20.1.
 - a. Thread Lubricant: 100% virgin PTFE Teflon tape.

2.10 STAINLESS STEEL BALL VALVES

- A. Two-piece, full port, ASTM A276 GR 316 or ASTM A351/A351M GR CF8M stainless steel body and end piece, NPT threaded ends, ASTM A276 Type 316 stainless steel ball, reinforced PTFE seats, seals, and packing, adjustable packing gland, blowout proof stainless steel stem, stainless steel lever operator with vinyl grip, rated 1,000 psig CWP, complies with MSS SP-110.

2.11 PRESSURE GAUGE

- A. Pressure Gauge
 - 1. General:
 - a. Function: Local pressure indication
 - b. Type: Bourdon tube element
 - 2. Performance:
 - a. Scale Range: 0-50 psi
 - b. Accuracy: Plus or minus 0.5 psi
 - 3. Features:
 - a. Dial: 4-1/2-inch diameter
 - b. Pointer Vibration Reduction: Required. Use the following method:
 - (1) Liquid filled gauge front,
 - (a) Glycerin fill.
 - c. Case material: Black thermoplastic.
 - d. Materials of Wetted Parts (including element, process connection, etc.):
 - (1) 316 Stainless steel.
 - e. Pointer: Adjustable by removing ring and window.
 - f. Window: Glass or acrylic.
 - g. Threaded reinforced polypropylene front ring.
 - h. Case Type: Solid front with blow-out back.
 - 4. Process connection:
 - a. Mounting: Lower stem, unless otherwise noted.
 - b. Size: 1/2-inch male NPT.
 - 5. Manufacturers and Products:
 - a. Ashcroft; Duragauge model 1279.
 - b. Ametek U.S. Gauge; model 1931.
 - c. Or Equal
- B. Pressure Seal, Diaphragm
 - 1. General:

- a. Function: Isolate sensing element from process fluid
 - b. Type:
 - (1) Diaphragm.
 - (2) Fluid filled between diaphragm and sensing element.
- C. Performance:
 - 1. Pressure:
 - a. For threaded process connections, at least 2500 psig at 100 degrees F.
 - b. Glycerin Fill: suitable for pressure applications.
 - 2. Temperature: Zero to 400 degrees F with Glycerin fill.
- D. Features:
 - 1. Materials:
 - a. Lower Housing: Type 316 stainless steel, unless otherwise noted.
 - b. Diaphragm Material: Type 316 stainless steel unless otherwise noted.
 - c. Top Housing: Steel, unless otherwise noted.
 - 2. Diaphragm: Welded to upper housing, unless otherwise noted.
 - 3. Fill fluid: As noted or approved equal. To be factory assembled and filled.
 - 4. Flushing connection: ¼-inch NPT in lower housing.
 - 5. Displacement: 0.1 cubic inch, nominal.
- E. Connections
 - 1. Instrument: ½-inch female NPT unless otherwise noted or shown.
 - 2. Process: ½-inch female NPT unless otherwise noted or shown.
- F. Manufacturers and Products
 - 1. Shall match pressure gauge manufacturer.
 - 2. Ashcroft; Type 201.
 - 3. Ametek; Type SG.
 - 4. Or Equal

2.12 COMBINATION AIR RELEASE VALVE

- A. Function: Provide the function of both an air release and air/vacuum valve in a wastewater system.
- B. Shall be capable of expelling air during system operation and provide vacuum protection.
- C. Size: As shown on the plans
- D. Single body wastewater combination air release valve.
- E. Shall have stainless steel floats and stainless steel internal trim.
- F. Shall meet all requirements of AWWA C512.
- G. The valve shall have full size NPT inlets and outlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection.
- H. The valve shall have two additional NPT connections for the connection to gauges, testing, and draining.

- I. The valve shall provide a through flow area equal to the nominal size. Floats shall be unconditionally guaranteed against failure including pressure surges. The cover shall be bolted to the body and sealed with a flat gasket.
- J. The valve shall have a leverage mechanism with sufficient mechanical advantage so that the valve will open under full operating pressure. Simple lever designs shall consist of a single pivot arm and a resilient orifice button. Compound lever designs shall consist of two levers and an adjustable threaded resilient orifice button.
- K. The valve shall have an expanded outlet to provide full flow area around the guide mechanism.
- L. The plug shall have a precision orifice drilled through the center stem.
- M. Materials
 - 1. The valve body and cover shall be constructed of ASTM A351 Grade CF8M stainless steel.
 - 2. The float, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic floats, linkage, or bushings are not acceptable.
- N. The valve shall have a low durometer seat and orifice button.
- O. The valve shall include an inflow preventer to prevent the introduction of contaminated water through the air valve outlet. The inflow preventer shall allow the admittance and exhausting of air while preventing contaminated water from entering during normal operating conditions.
- P. Approved Manufacturers
 - 1. Val-Matic (Model 801A)
 - 2. Or Equal

2.13 CRANE BASE

- A. Contractor shall furnish and install a socket base mount on the wet well concrete manhole deck for a portable davit crane. The socket base mount shall be from the same manufacturer and fully compatible with the Owner's existing portable davit crane(s), which are the following model:
 - 1. Thern, Model # 5110, Serial # 5004-24462
- B. The base shall be stainless steel or powder coated with a corrosion resistance finish.

2.14 HAZARDOUS WARNING SIGN

- A. Contractor shall furnish and install a hazardous warning sign at the proposed wet well location.
- B. Sign shall have the following characteristics:
 - 1. Signs shall be of one-piece construction.
 - 2. Sign material shall consist of 1/16" thick aluminum.
 - 3. Finish shall be baked enamel.
 - 4. All letters, numbers and/or symbols shall contrast with their background. Characters and background shall have matte finish.
 - 5. Lettering style shall be Arial bold, upper case.
 - 6. Letters and words shall be centered on sign.

7. All lettering shall be 2" height with 2" spacing between lines of text and 1" margins from widest lettering extents to edge of sign.
8. Edge: Square.
9. Corners: Square.
10. Mounting: The signage shall be affixed to the vent piping with a stainless steel pipe strap in a visible location.
11. Color: Off white background color to be selected by Owner. All lettering to be black and in all capital letters.
12. Sign Lettering:
 - a. Line 1: "DANGEROUS /".
 - b. Line 2: "HAZARDOUS GASES".
 - c. Line 3: "LEVEL 2 CONFINED SPACE".
 - d. Line 4: "DO NOT ENTER WITHOUT".
 - e. Line 5: "PROPER EQUIPMENT".

2.15 ACCESS HATCHES

- A. The Contractor shall furnish and install access hatches with dimensions shown on the Drawings at the locations shown on the Drawings.
 1. Quantity: Two (2)
 - a. Wet Well Quantity: One (1)
 - b. Valve Vault Quantity: One (1)
 2. Access hatch shall have 1/4 inch thick minimum diamond pattern aluminum cover plate and stainless steel hinges and attaching hardware.
 3. Access hatch shall be of single leaf construction for maximum access.
 4. Access hatch shall have an extruded aluminum frame with continuous anchor flange.
 5. Access hatch shall open to 90° and have an auto-locking T-316 stainless steel hold open arm with release handle, a non-corrosive locking bar, and recessed lifting handle.
 6. Access hatch door shall close flush with frame.
 7. Access hatch shall be designed with a minimum load rating of 300 pounds per square foot.
 8. Acceptable Manufacturers:
 - a. Halliday Products, Series S1S Access Door.
 - b. Or Equal
- B. The Wet Well Access Hatch shall be equipped with a protective grating panel with the following features:
 1. Protective grating panel shall be 1 inch (25mm) thick aluminum "I" bar grating.
 2. Grating panel color and finish shall be Safety Orange powder- coating.
 3. Grating panel shall be hinged with tamper proof stainless steel bolts and shall be supplied with positive latch to maintain unit in an upright position.

4. A 6-inch viewing area shall be provided on each lateral unhinged side of grating panel, for visual observation and limited maintenance procedures.
5. The grating support ledges shall incorporate nut rail feature supplied with minimum of four (4) stainless steel spring nuts for mounting pump brackets and/or cable holders.
6. A padlock hasp for owner-supplied padlock shall be provided.
7. Acceptable Manufacturers:
 - a. Halliday Products
 - b. Or Equal

2.16 FLEXIBLE COUPLING

- A. Shall conform to ASTM D 5926, C 1173 and CSA B602.
- B. Bands and clamps shall be stainless steel.
- C. Acceptable Manufacturers
 1. Fernco
 2. Or Equal

2.17 BOLTED FLEX COUPLING

- A. Install bolted flex couplings at all pipe transitions into concrete basins as indicated on the plans.
 1. Approved Manufacturer:
 - a. Romac Industries, Bothell, WA.
 - (1) Product: Style 501 Ductile Iron Coupling.
 - (2) Castings: The end rings and center rings are cast from ductile iron, meeting or exceeding ASTM A536.
 - (3) Hardware: Stainless steel bolts and nuts.
 - (4) Finish: Epoxy coated per AWWA C213 or equal.
 - b. Or Equal

2.18 HIGH DENSITY POLYETHYLENE (HDPE) PIPE (BID ALTERNATE #1 ONLY)

- A. General:
 - a. PE 3408 or PE 4710.
 - b. SDR 7
 - c. Manufactured with color striping to identify their application.
 - d. Same outside diameter size as ductile iron.
 - e. Furnish manufacturer's inspection certificates.
 - f. Polyethylene pipe may be joined together by butt fusion using approved heat-fusion joining machine.
- B. Polyethylene pipe may be joined to other materials by means of:
 - a. Flanged connections (flange adapters and back-up rings). Flange adapters shall be fitted with back-up rings that are pressure rated equal to or greater than the mating pipe. The back-up ring bore shall be chamfered or radiused to provide clearance to the flange adapter radius.
 - b. Minimum bend radius of pipe shall conform to the specifications of the pipe

- manufacturer.
 - c. Mechanical joint adapters.
 - d. Mechanical couplings designed for joining polyethylene pipe to another material.
- C. A stainless steel stiffener shall be installed in the bore of the polyethylene pipe when an OD compression mechanical coupling is used and when connecting plain end PE pipe to a mechanical joint pipe, fitting or appurtenance.
 - 1. External clamp and tie rod restraint shall be installed where PE pipe is connected to the socket of a mechanical joint pipe, fitting or appurtenance except where a Mechanical Joint Adapter is used.

2.19 PRE-FABRICATED LIFT STATION (BID ALTERNATE #1 ONLY)

- A. Contractor shall furnish, install, and place into service a factory built 48" duplex pump station including two (2) submersible grinder pumps, valves, piping, and motor controls, with fiberglass reinforced polyester resin enclosure as described in these Specifications and shown in the Drawings.
- B. Manufacturer
 - 1. AK Industries as provided by Electric Pump
 - 2. Or Equal
- C. Wet Well FRP Wall Laminate must be designed to withstand wall collapse or buckling based on these assumptions and Third party specifications.
 - 1. Hydrostatic Pressure: 62.4 lbs. Per SQ Ft.
 - 2. Saturated soil weight: 120 lbs. Per Cubic Ft.
 - 3. Soil Modulus: 700 lbs. Per SQ Ft.
 - 4. Pipe Stiffness: As specified in ASTM D 3753
- D. The wet well FRP laminate must be constructed to withstand or exceed two times the assumed loading on any depth of the wet well.
- E. The exterior layer of body of laminate shall be of construction suitable for the service intended and contain sufficient glass by weight (50 TO 80 %) to provide the aggregate strength necessary to meet the tensile and flexural requirements. The exterior surface shall be relatively smooth with no exposed fibers or sharp projections. Hand work is acceptable, but enough resin shall be present to prevent fiber show.
- F. The resin rich inner surface shall be free of cracks and crazing with smooth finish with an average of not more than (2) two pits per square foot, providing the pits are less than 0.125 in diameter and 0.3125 inches in depth and are covered with sufficient resin to avoid exposure of any fiberglass reinforcement materials. Some waviness shall be permissible as long as the surface is smooth. A minimum of 0.100 inch of the laminate next to the inner surface shall be reinforced with not less than 20 percent nor more than 30 percent by weight of non-continuous glass strands having fiber lengths from 0.5 to 2.0 inches. Both exterior and interior laminates shall have a Barcol Hardness of at least 90 percent of resin manufacture specified hardness for fully cured resin.
- G. Must be constructed suitable for service under total water submerged conditions. The center deflections of any basin bottom must be less than 3/8" in as not to interfere with the pump mounting requirements and Rail system. No bottom shall have a form of glue adhesive as attachment of the basin bottom and or anti floatation collar.

- H. The wet well top flange shall have an outside diameter at least 4 inches greater than the inside diameter of the basin. A (6) six hole pattern shall accommodate the mounting of a cover with at least 3/8 inches in diameter 300 series stainless steel fasteners. Non – corroding stainless steel threaded inserts shall be fully encapsulated with non-continuous mat or chop strand glass fiber reinforcement, the inserts shall have an offset tab to prevent stripping or spinning out when removing and reinserting cover fasteners.
- I. The anti-float shall be manufactured by way of (RTM) resin transferred molded Continuous Mat and or chop spray, with an outside diameter no less than (4) inches larger than the ID of any basin. The anti-float shall have no glue adhesive in form of attachment to any basin. No more than 3/8 inch deflection in center of basin bottom.
- J. The steel anti-floatation shall be constructed from 0.187 inches thick (ASTM A 36) structural steel plate, encapsulated in at least 0.125 inches of chopped-strand glass fiber reinforcement on all sides, The steel anti-floatation may be square and or round, with no less than 4 inches greater than the inside diameter of any basin. The steel anti-floatation collar shall be attached to the basin bottom with chopped-strand glass fiber reinforcement.
- K. The cover shall be constructed of 1/4 inch thick material finish aluminum diamond plate pattern with 300 series stainless steel hardware. The hatch shall have a positive means of holding door open in the vertical position (Locking hold open arm) made of non-corrosive material. The cover shall be mounted with minimum of six 300 series stainless steel fasteners. The access hatch cover shall have a lift handle and a means of locking.
- L. Designated size NPT, 300 series stainless coupling, full welded in the center of a 300 series stainless steel plate. Mounted with 300 series stainless steel hardware. 1 1/4 inch thru 4 inch. Wet well penetrations to be sealed prior to mounting of coupling.
- M. The Cast Iron Caulking Hubs are made of cast iron conforming to radius of fiberglass basin. All fasteners to be 300 series stainless steel. Use local plumbing codes for approved sealing methods and materials.
- N. Float bracket shall be fabricated from 300 series stainless steel with compression style cord grips to maintain float level position. Install with 300 series stainless steel hardware.
- O. Wet well ventilation shall comply with all applicable codes.
- P. Discharge pipe shall be schedule 80 PVC with means of positive seal joints per material.
- Q. Handling instructions shall be provided by lift station manufacturer with lift station to ensure proper handling of the lift station. After inspection up on delivery by receiver, the Contractor shall store any loose items and account for them in a clean and dry environment. All equipment needed to off load and install lift station shall be determined and be provided by contractor on the project.
- R. The prefabricated FRP lift station manufacturer shall guarantee the prefabricated lift station for a period of two years from the date of startup.

2.20 AIR RELEASE VALVE VAULT (BID ALTERNATE #1 ONLY)

- A. Includes excavation, hand trimming excavation, bedding, service saddle, corporation stop and connecting fittings, lead pipe from the connecting fittings to the air release valve vault, air release valve vault, which includes but is not limited to; cast iron lid, insulation pad, single body combination air release valve, platform, vent pipe, 3-way ball

valve, internal coil, gravel drain, concrete footings, backfilling and compaction of backfill, installation, testing and incidentals thereto.

- B. Ball Valve: Size shall match inlet size of combination air release valve.
- C. Approved Manufacturers
 - 1. Mueller Co.
 - 2. Or Approved Equal

2.21 SUBMERSIBLE GRINDER PUMPS (BID ALTERNATE #1 ONLY)

- A. Each station shall be equipped with 2 submersible grinder pumps.
- B. Grinder pump design summary:
 - 1. Number of pumps: Two (2)
 - 2. Flow 25 GPM
 - 3. TDH 67 ft
 - 4. Impeller Diam. 4.75 in.
 - 5. Voltage 208 volt 3-Phase 60 Hz
 - 6. Horsepower (minimum) 2 HP
 - 7. Manufacturer Barnes or Approved Equal
- C. The impeller blades shall be self-cleaning upon each rotation as they pass across a sharp relief groove in the Insert ring and shall keep the impeller blades clear of debris. The pump inlet shall have a guide pin which moves fibers from the center of the impeller to the leading edges of the impeller. The impeller shall move axially upwards to allow larger debris to pass through and immediately return to normal operating position. The clearance between the insert ring and the impeller leading edges shall be adjustable.
- D. Unit (s) shall be CSA listed for Class I, Groups C & D, Division 1, hazardous locations. The volute, seal plates and motor housing shall be constructed of high quality ASTM A-48 class 30 cast iron. The pump (s) shall be painted with amide amine modified polymer satin gloss epoxy with 10 mil minimum thickness. All exposed hardware shall be 300 series stainless steel. Discharge connection shall be a standard 2 inch NPT in the vertical position or 2/2.50/3 inch 125 pound slotted flanged to accommodate ANSI or ISO piping flange.
- E. The pump impeller shall be of the recessed vortex design. Pumps with standard centrifugal semi-open impeller designs shall not be acceptable. The impeller shall be of ASTM A-48 class 30 cast iron construction and machined for threading to the motor shaft.
- F. The grinder mechanism shall consist of a radial cutter threaded and locked on the motor shaft by a washer in conjunction with a countersunk flat head cap screw, and a shredding ring containing a minimum of fifteen flow passages with cutting edges. The shredding ring shall be reversible to provide twice the cutting edge life. Both the shredding ring and radial cutter shall be constructed of 440C stainless steel hardened to a min. Rockwell C55 and shall be finish ground for a fine cutting edge. Two-stage cutter mechanisms requiring external adjustment for proper clearance are not acceptable.
- G. The unit shall utilize a tandem mechanical shaft seal arrangement and shall operate in an oil atmosphere. The materials of construction shall be carbon for the rotating face and ceramic for the stationary face, lapped and polished to a tolerance of one light

band, 300 series stainless steel hardware, and all elastomer parts to be Buna-N. The seal shall be commercially available and not a proprietary design of the manufacturer.

- H. Three phase motors shall be 208V design. The pump shall be designed to be non-overloading throughout the entire pump curve. The rotor and stator assembly shall be of the standard frame design and secured to the pump seal plate by four threaded fasteners allowing for easy serviceability.
- I. The motor shall be constructed with the windings operating in a sealed environment containing clean dielectric oil, making it capable of operating in a totally, partially or non-submerged condition for extended periods of time without damage due to the heat being generated.
- J. Air-filled motors shall not be acceptable. The motor windings shall be spike resistant with of Class F insulation and Class H wire. The motor shall meet the standard NEMA design L for single phase, NEMA design B for three phase and be inverter duty rated per NEMA MG1 Part 31. The motor shaft shall be of 416 stainless steel. Protection against excessive temperature shall be provided by heat sensor thermostat attached to the stator windings and connected in series with the contactor coil in the control panel.
- K. The lower bearing shall be of the double row ball type to accept radial and thrust loads, and the upper bearing of the single row ball type for radial loads. Bearings shall operate in an oil bath atmosphere for superior life. Permanently lubricated bearings are not acceptable.
- L. The pump shall be equipped with 50 feet of a NRTL listed submersible plug-n-play quick connect power cable constructed in accordance with type W guidelines and shall include the moisture and temperature sensor leads. The cable entry system shall consist of an expanding rubber plug held in place by a cast stainless steel plate indicating voltage and max amps. The plug and connector shall be NRTL listed for hazardous locations, Class I, Division 1, Group D.
- M. The pump manufacturer shall perform the following inspections and tests:
 - 1. A check of the motor voltage and frequency shall be made as shown on the name plate.
 - 2. A motor and cable insulation test for moisture content or insulation defects shall be made per UL/ CSA criteria.
 - 3. The pump shall be completely submerged and run to determine that the unit meets three pre-determined hydraulic performance points.
- N. The pumps shall be tested at start-up by a qualified representative of the manufacturer. A start-up report as provided by the manufacturer shall be completed before final acceptance of the pumps.
- O. The contractor shall verify motor size, voltage, and pumping capacity of the installed pumps to confirm the design point. The contractor shall provide results from test pumping to the engineer.
- P. The manufacturer, if requested, will supply a minimum of 3 sets of standard submittal data. Standard submittal data consist of:
 - 1. Pump catalog data;
 - 2. Pump performance curve
 - 3. Break away fitting data

4. Access frame data
5. Typical installation drawing
6. Control panel data
7. Panel wiring schematic
8. Accessory data
9. Installation & Operation Manuals with Parts List

Q. Pump Control Panel

1. The duplex pump controls shall be housed in a NEMA 4X Fiberglass enclosure with a red alarm light, audible alarm with push to silence switch, H-O-A switches, elapsed time meters, and pump run light. The enclosure shall be mounted type with exterior mounting tabs and sized to house all the required components and allow adequate space for testing and maintenance as necessary. The enclosure shall have back plate mounting studs, padlocking provisions, door latches and continuous hinge, all of stainless steel. The door gasket shall be a seamless foam-in-place type.
2. Panel shall accept a single power feed into a main circuit breaker and shall provide power distribution to pumps, controls, and all other components needing power. Power circuits shall include circuit breakers for each branch circuit, including but not limited to Pump 1, Pump 2, and Controls. Circuit Breakers shall be listed to UL 489.
3. Each pump shall be provided with a FVNR motor starter sized appropriately for the provided pump. Equip starters with block type manual reset overload relays, control fusing, phase failure relay, and additional contacts as necessary for control functions.
4. The panel shall have a formed aluminum switch mounting plate. All control switches and indicator pilot lights shall be mounted on the switch mounting plate.
5. All conduit entrances shall be made in a NEC approved manner. The conduits to the wet well shall have approved seal-off fittings installed and properly sealed to protect the control panel from adverse damage from the wet well. Electrical contractor will furnish and install.
6. All components shall be securely mounted to the back plate with plated machine screws through machine thread tapped holes in the back plate. The screws shall be of adequate size for the device being secured.
7. "Hand-Off-Auto" switch shall be provided for each motor and mounted on the formed aluminum switch bracket.
8. Each pump shall each be equipped with an individual elapsed time meter. An additional elapsed time meter shall be provided that indicates length of time that simultaneous pump operation occurs. Elapsed time meters shall record in hours and tenths of hour.
9. All pilot lights shall be mounted on the aluminum switch bracket and be supplied as follows: Pump Run Light – Green. Pilot Lights shall be 30 mm LED oil-tight devices.

10. Alarm light shall be constructed of shatter-resistant lexan. The red light shall be rated NEMA 4X and be supplied with a heavy duty one piece porcelain lamp holder and 15 watt rough service bulb. The red light will be mounted on top of the enclosure and shall be as manufactured by Federal Signal – model PPL 178. Under high level conditions, the red light shall glow bright and flash, via a solid-state flasher and the electronic piezo horn shall sound. The red light & horn shall go out automatically after water level drops below the high level elevation.
11. Terminal strips shall be provided for all wiring termination. All field wiring shall be labeled.
12. The control panel assembly shall be complete factory tested and shall be “UL” 508A listed and labeled.
13. The Pumps shall be controlled via float level switches in the lift station wet well. Pumps shall start when the wet well level reaches the elevations listed on the contract drawings. Set points shall be easily adjusted by Owner's personnel. 1st Float – Pump off, 2nd Float – Lead Pump On, 3rd Float – Lag Pump On, 4th Float - High level alarm. Pumps shall alternate lead-lag between each start.
14. The Panel shall be equipped with motor overtemp and seal fail sensing provisions. Upon detection of either condition, the control logic shall shut off the pump and provide notification by pilot light or other means on the front of the control panel with the other pilot devices.
15. Control Panel SCCR shall be 10 kAIC minimum.

2.22 LIFTING EQUIPMENT FOR PUMPS (BID ALTERNATE #1 ONLY)

A. Lifting Chain:

1. Each pump shall be fitted with a stainless steel lifting chain. The working load of the lifting chain shall be 50% greater than the pump unit weight.
2. The lifting chains/cables shall be of sufficient length to extend from the pumping unit to the top of the prefabricated lift station.
3. The contractor shall furnish and install an aluminum or stainless steel holding bracket for each lifting chain/cable.
4. The lifting chains/cables shall be connected to the pumps and the excess neatly stored on the holding bracket upon final installation of the pumps.

B. Guide Rails:

1. (2) 1” Minimum Schedule 40 Type 304 stainless steel pipe of sufficient size to remain rigid and unbending under intended loading conditions.
2. Guide rails shall not support any portion of weight of the pump
3. Guide rails shall be attached to the base elbow of the break away fitting at the lower end and a pipe spacer support bracket at the upper end.
4. Provide intermediate guide bar spacer supports when clear span distances between supports will exceed 12 feet.
5. Sliding guide brackets: cast iron or fabricated steel, galvanized after fabrication.

PART 3 - EXECUTION

3.01 INSIDE DROP BOWL INSTALLATION

- A. Inside drop bowl shall be installed in accordance with manufacturer's installation instructions.
- B. Trim incoming pipe so that no more than 2" of pipe protrudes into the manhole.
- C. Center drop bowl directly under incoming pipe, allowing approximately 1" vertical clearance between pipe and bowl.
- D. Attach drop bowl to manhole with 3/8" diameter stainless steel anchors at frequency recommended by the manufacturer.

3.02 GEOTECHNICAL REQUIREMENTS

- A. Contractor shall be responsible for reviewing and familiarizing themselves with the complete contents of the geotechnical report(s) for this project, and shall be responsible for all work necessary to satisfy the concerns, considerations, and recommendations of the geotechnical report, including but not limited to; dewatering, shoring and trench/excavation stabilization, subgrade compaction, trenching and backfill compaction, and all other considerations.
- B. Contractor shall be responsible for all shoring and trenching necessary to protect/not disturb existing utilities.

3.03 GEOTECHNICAL ENGINEER

- A. Owner shall employ a Geotechnical Engineer to observe construction activities in regard to critical geotechnical components of the work as identified in the geotechnical report. The Geotechnical Engineer shall report directly to the Owner and Engineer on the acceptability of the work in accordance with the geotechnical report and Contract Documents.
- B. The Owner's Geotechnical Engineer will also perform all materials testing for the project and will report directly to Owner and Engineer on the acceptability of the tests in accordance with the geotechnical report and Contract Documents. Contractor shall be responsible for scheduling and coordination with Geotechnical Engineer in regards to critical site observations and materials testing and shall copy Engineer on all correspondence.

3.04 COMPACTION TESTING

- A. Owner shall arrange and pay for Owner's Geotechnical Engineer to perform all compaction testing on earthwork and trench backfill in accordance with the geotechnical report and SUDAS specifications, as amended by the City of Carroll Supplemental Specifications. Contractor shall be responsible for achieving proper compaction and soil moisture, as specified. The Contractor will be responsible for payments associated with all retesting resulting from failure of initial tests.

3.05 DISPOSAL OF REMOVALS

- A. All disposal of any material that is removed shall be done in strict compliance with all applicable State, Federal and Local laws and rules and regulations.
- B. All removals shall be disposed of by Contractor at Contractor's own disposal site and at Contractor's expense.

3.06 OPERATION OF WATER SYSTEM VALVES AND EQUIPMENT

- A. No valve, equipment, or other control on the existing water system shall be operated for any purpose by Contractor without prior permission of Owner.

3.07 CLEANUP

- A. Contractor shall return all areas disturbed by construction of the project to the original grade or to the finish grade as shown on Drawings and shall restore the site to as clean and sightly condition as before the work began.
- B. Contractor shall keep the cleanup of the project current with the construction.
- C. During construction, areas to be maintained for traffic shall be kept clear of all hazardous materials, including but not limited to construction debris, dust, and mud.
- D. The cleaning and sweeping of the streets in the construction area shall be completed prior to the completion of the project. The project cleanup shall be conducted to the satisfaction of Owner and Engineer and shall be completed prior to final acceptance of the project.
- E. Contractor shall clean streets in project area whenever mud, dirt or debris is tracked onto to the streets as a result of the activities of Contractor, by his/her employees, sub-Contractors, suppliers or agents.

END OF SECTION

SECTION 26 00 00
ELECTRICAL WORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Extent of electrical work is indicated by drawings and schedules and by requirements of this section. Work includes the following:
- B. General Work: The work associated with electrical systems and equipment to be performed as electrical work includes excavating, conduit sleeves, conduit supports, anchors, metering, motor starters, power, miscellaneous systems, identification, coordination of drawings, record drawings, permits, tests, inspection, utility connection, starting up systems, training of Owner's operating personnel, producing operating and maintenance manuals, and construction permits.
 - 1. Power: The extent of the power work is indicated in the contract documents by E-Series drawings. This work includes conduit, wire, boxes, receptacles, starters, and all equipment required for a complete installation. Wiring of equipment furnished by other specification Divisions or by the Owner that requires electrical power connections shall be wired in accordance with manufacturer's instructions.
- C. Refer to SUDAS Section 3010 for trenching, excavating and backfilling required in connection with the underground telephone, television and electrical service. This work to be performed as part of the electrical contract.
- D. Refer to SUDAS Section 6010 for concrete work associated with the electrical work.

1.02 QUALITY ASSURANCE

- A. General: In addition to complying with local codes, ordinances, standards and regulations, comply with:
 - 1. Independent Testing Laboratories (ITL)
 - 2. Electrical Testing Laboratories (ETL)
 - 3. Factory Mutual (FM)
 - 4. Institute of Electrical and Electronic Engineers (IEEE)
 - 5. Underwriters' Laboratories, Inc. (UL)
 - 6. National Fire Protection Association (NFPA)
 - 7. American Society for Testing and Materials (ASTM)
 - 8. American National Standards Institute (ANSI)
 - 9. National Electrical Code (NEC)
 - 10. National Electrical Safety Code (NESC)
 - 11. Insulated Power Cable Engineers Association (IPCEA)
 - 12. American Institute of Steel Construction (AISC)
 - 13. State & Municipal Codes in Force in the Specific Project Area
 - 14. Occupational Safety and Health Association (OSHA)

1.03 SUBSTITUTIONS

- A. Pre-Bid Substitution Requests: Unless indicated otherwise, in general, products indicated are a basis of design and pre-bid substitutions are allowed. Substitution requests shall be submitted to the Engineer for approval, no later than 14 days prior to bid date.
 - 1. If a specific product is listed without an “or approved equal/equivalent” clause, then the product listed shall be the product provided. This is generally restricted to products in which compatibility with other equipment or existing equipment is necessary.
 - 2. If a specific product is specified without a Basis of Design manufacturer and product catalog number/series, or a list of approved manufacturers then a pre-bid substitution request is not required.

1.04 SUBMITTALS

- A. General: The Contractor shall submit to the Engineer, for approval, electronic PDF copies of shop drawings of all major items of equipment and/or systems, giving manufacturer's name, catalog numbers, etc., and shall in particular set forth any variation or substitution from that intended by plans and specifications. Submittals shall consist of a Bill of Materials for major items included in the submittal, manufacturer's catalog page indicating general features and listings, and shop drawings. Electronic PDF files shall be text searchable and include bookmarks for major sections for ease of navigation.
- B. Shop drawings shall be submitted for review for the following:
 - 1. Disconnect Switches
 - 2. Panels
 - 3. Surge Protective Devices
- C. Operational & Maintenance Manuals: Provide O & M Manuals in accordance with Section 01 10 00.
 - 1. Provide manufacturer's O & M or instruction Manuals for major equipment provided with this project.
 - 2. In addition to paper copies, an electronic version shall be provided in PDF format. The PDF file shall be text searchable and organized the same as paper copy complete with bookmarks for each indexed tab section.

1.05 COORDINATION OF ELECTRICAL WORK

- A. Coordination of Work: The Contractor shall be responsible for the coordination electrical work with the work all other suppliers and installers for this Project.
- B. Coordinate and install wiring for appliances and systems furnished under other specification Divisions, furnished by the Owner, Bid Packages or in some instances furnished under separate Contract. It is the intent of this requirement, that anything with an electrical connection will have power, and be working properly at Substantial Completion unless indicated otherwise. Verify outlet box sizes for various components such as wall switches and indicators. Install electrical wiring in accordance with manufacturer's instructions. Items requiring some installation by the Electrical Contractor that are furnished by others include, but not limited to: pumps, control panels, etc.

- C. For some items that are provided for this Project provided by others, product substitutions may result in changes to the electrical systems indicated. When Contractor initiated product variations result in electrical system changes, coordinate those changes at no additional cost to the Owner.
- D. The Electrical Contractor shall be responsible for coordinating the electrical requirements of items provided under Division 26. Make field adjustments as necessary for variations in product requirements provided under Division 26 at no additional cost to the Owner.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Handle all electrical equipment carefully to prevent breakage, denting, and scoring finishes.
- B. Deliver all electrical equipment in factory fabricated fiberboard type containers.
- C. Store all equipment to be installed on the job that is stored on the site for any period of time shall be protected from the weather in a manner acceptable to the Engineer. All conduit shall be stored off the ground to insure that no dirt or debris is allowed to enter them before installation. Failure to store material correctly shall be just cause for the Architect to direct the Contractor to remove the material from the site.

1.07 PERMITS AND FEES

- A. The Contractor shall familiarize himself with all requirements as to permits, fees, codes and ordinances, etc., and arrange to comply with them.
- B. All permits, licenses, fees, inspections, and arrangements required for the work under this contract shall be obtained by the Contractor at his expense.
- C. The Contractor shall field coordinate and provide all temporary power required.
- D. Utility Coordination: The Contractor shall coordinate electrical service with the providing electric utility. All utility fees associated with this project shall be billed to the Owner.
 - 1. The electrical utility point of contact is:
Dusty Rardin
MidAmerican Energy
(712) 792-7045
Dusty.Rardin@midamerican.com

1.08 CODES

- A. All work shall be in accordance with applicable State and Local Codes. All work shall comply with the rules and recommendations of the National Fire Protection Association, all requirements of local utility companies, and the State Fire Inspection Bureau. These codes, rules, recommendations, and requirements shall take precedence if the drawings and specifications are not in conformance therewith.

1.09 LABELS AND IDENTIFICATION

- A. Equipment Identification: All identification labels shall be installed in a neat and workmanlike manner. Cleans surfaces prior to installation.

- B. All Panels shall have identification labels of the equipment neatly stenciled on the equipment. Labels shall be 1 inch wide plastic "black" with 3/8 inch engraved letters "white". Labels shall be permanently glued to equipment in a neat fashion. Label shall have the complete name of the equipment as well as its mark or number, such as "Panel EL1".
- C. All disconnect switches shall have identification of the equipment being served neatly stenciled on the switch. Labels shall be 1 inch wide plastic "black" with 3/8 inch engraved letters "white". Labels shall be permanently glued to equipment in a neat fashion. Label shall have the complete name of the equipment as well as its mark or number, such as "Electric Unit Heater EH-1".
- D. Wiring:
 - 1. All control wires shall have self-adhesive wraparound type identification labels at each panel, enclosure, and termination. Labels shall be machine printed by thermal transfer or equivalent process. Identification of each wire shall be unique and shall match terminals within the control panel.
- E. Terminal Strips: Each terminal strip shall have an identification label identifying the terminal strip. In addition, each terminal on the strip shall be uniquely numbered.
- F. Panelboards: All panelboards shall have a machine printed, flexible self-adhesive vinyl label with the following identifications:
 - 1. A label with the available short-circuit current shall be included on each panelboard per NEC 408.6. Contractor to verify with Engineer to provide the available short-circuit currents which incorporate shop drawing transformer impedances and field installed feeder lengths. For information provided subsequent to bidding, use the date of receipt of information.
 - 2. Ungrounded conductor color coding system per NEC 210.5.
 - 3. Label that identifies the equipment where the power originates per NEC 408.4(B).
 - 4. Arc Flash Hazard Warning per NEC 110.16. The Contractor is responsible for generic arc flash warning labels.
- G. Circuit Directories:
 - 1. Panelboards: Provide machine printed circuit directory card for the As-Built conditions for each panelboard. In lieu of a circuit directory card, it is acceptable to utilize machine printed flexible self-adhesive vinyl labels at each circuit breaker.
- H. The main disconnect shall have a preprinted, flexible self-adhesive vinyl label that identifies the available fault current per NEC 110.24. If the available fault is not identified on the drawings, verify levels with the Engineer.

PART 2 - PRODUCTS

2.01 ELECTRICAL RACEWAYS

- A. General: For each electrical raceway system indicated, provide assembly of conduit, tubing or duct, and fittings, included but not necessarily limited to, connectors, couplings, off sets, elbows, straps, bushings, expansion joints, hangers, and other components and accessories as needed for a complete system. Minimum size of conduit shall be 3/4 inch. All conduit shall be new.

- B. RMC: Rigid steel conduit complying with ANSI C80.1 shall be listed to UL 6, standard weight, mild-steel, hot-dipped galvanized or sherardized inside and out.
- C. Stainless Steel IMC: Intermediate Metal Conduit, complying with ANSI C80.6 and listed to UL 1242. Stainless steel type 316 with threaded connections.
- D. LFMC shall have continuous copper content or separate grounding conductor, shall be listed to UL 360 and shall be "Seal-Tite" Type "UA," as manufactured by Anaconda or the approved equal. The connections shall be a maximum of 24 inches in length.
- E. Flexible Couplings for Hazardous Locations: Explosionproof, dust-ignitionproof, watertight listed to UL 1203 (superseded UL 886). Stainless steel braid with insulating liner. End fittings made from stainless steel. For corrosive environments, provide PVC outer coating.
- F. Nonmetallic: Rigid non-metallic conduit shall be PVC schedule 40 or 80 PVC conduit, NEMA TC 2, listed to UL 651 and listed for direct sunlight. 90° bends shall utilize schedule 80 conduit to prevent burn through during pulling.
 - 1. RTRC: Fiberglass Reinforced Thermosetting Resin Conduit (RTRC), heavy wall Type XW may be used in lieu of PVC. Raceway shall be listed to UL 2525 and UL 94 HB.
 - 2. For horizontal directional boring, HDPE, NEMA TC 7, listed to UL 651A, schedule 80, outside and inside smoothwall, black or red may be used in lieu of PVC.
- G. Each length of conduit shall be stamped with the name or trademark of the manufacturer and shall bear the Underwriter's label.

2.02 RACEWAY FITTINGS

- A. All raceway fittings shall be listed to UL 514B.
- B. Coupling and connections in non-hazardous areas (steel) for thin wall conduit shall be compression type. For outdoor or wet locations couplings shall also be rain tight, and concrete-tight. Indent or set screw type fittings shall not be used. Fittings for rigid conduit shall be threaded. Fittings for liquid tight flexible conduit shall be liquid tight. Fittings for stainless steel raceways shall be stainless steel. Unless noted otherwise, die-cast fittings in whole or part shall not be acceptable.
- C. Coupling and connections in hazardous areas for galvanized rigid steel shall be Class 1 Division 1 Appleton Type SFM or approved equal with breathers and drains. Include sealing compound.
- D. Seal fittings in hazardous areas for SS-IMC shall be Class 1 Division 1 Type 316 stainless steel Type EYS with breathers and drains for 1" sizes and below. For conduit sizes 1-1/4" and larger, seal fittings made from copper free aluminum or alloys with epoxy coat paint may be used. Include sealing compound.
- E. Bushings and lockouts for galvanized steel raceway shall be made of galvanized malleable iron and shall have sharp clean-out threads for rigid conduit. Compression type shall be used for EMT. Bushings and lockouts for stainless steel raceway shall be made of stainless steel.
- F. Expansion joint fittings shall be Type XJ/XJG-long or other conduit fittings as manufactured by Crouse-Hinds or equal for RMC and IMC. Use PVC expansion joints with length of travel suitable for 120°F temperature differential and the length of raceway for non-metallic raceways.

2.03 RACEWAY SUPPORT

- A. Stainless Steel Support Systems: Structural-grade, factory formed, AISI Type 316 stainless steel channels and angles with 9/16 inch diameter slotted holes at a maximum of 8 inches o.c. in at least 1 surface.
 - 1. Fitting and Accessory Materials: Same as channels and angles.
 - 2. Rated Strength: Selected to suit applicable load criteria.
 - 3. Basis of Design: Cooper B-Line SS6 series or equal.
- B. Galvanized Steel Support Systems: Structural-grade, factory formed, galvanized steel channels and angles with 9/16 inch diameter holes at a maximum of 8 inches o.c. in at least 1 surface.
 - 1. Fitting and Accessory materials: Same as channels and angles. Stainless steel may also be used.
 - 2. Rated Strength: Selected to suit applicable load criteria.

2.04 CONDUCTORS

- A. A complete system of copper conductors shall be installed in a raceway system with green ground wire throughout the building for all feeder and branch circuits, etc. Wire shall be copper, 600-V minimum rating, except for special systems. No wire smaller than No. 12 gauge shall be used, except for signal or control systems, or where otherwise indicated.
- B. Insulation Types shall be Type XHHW-2 rated for 90°C.
- C. Cables shall conform to the requirements of the Underwriter's Laboratories, Inc and shall be listed by a Nationally Recognized Testing Laboratory. XHHW-2 cable shall be listed to UL 44.
- D. All wire shall be brought to the job in unbroken packages and shall bear the date of manufacture and shall not be older than 12 months.
- E. Color Coding: All wiring shall be color-coded throughout its entire length.
 - 1. 3 phase SN 120/208V
 - a. Phase A – Black
 - b. Phase B – Red
 - c. Phase C – Blue
 - d. Neutrals - white
 - e. Ground - Green
- F. Analog Instrumentation Cables: Control cables for analog or digital signals shall be UL listed PLTC, rated for 90°C, shielded twisted pair, with XLPE insulation, minimum size #18 AWG. Outer jacket shall be lead-free, flame-retardant, and sun-light resistant. Cables used in outdoor or underground applications shall also be listed for direct burial or wet locations. Cables installed in hazardous locations shall also be listed as “gas/vapor tight continuous sheath”.

G. Conductor Splices and Taps:

1. Interior and Dry Locations:

a. Splicing of Conductors #10 AWG or smaller shall be by one of the following methods:

- (1) Conductors shall be twisted together and soldered. All uninsulated splices, joints and free ends of conductors shall be covered with heat shrink rubber insulating sleeve or equal.
- (2) Preinsulated spring-pressure connectors, such as "Scotch-lok" or equal.

b. Splicing and Termination of Conductors #8 AWG or larger:

- (1) Conductors shall be connected using insulated secondary set-screw connectors. Connector Manufacturing Co. Type NACC or approved equal.
- (2) Connection to ground conductors No. 1/0 AWG and larger shall be cast by Cadweld, or Burndy "Thermoweld", fusible-metal process.

2. Wet Locations: Unless indicated otherwise, conductor splices and taps in wet locations shall utilize connectors listed to UL 486D for wet locations.

a. Splicing of conductors in ground level pull boxes shall be connected using secondary set-screw connectors listed to UL 486D with either "submersible" or "direct burial" listing mark. Connector Manufacturing Co. Type SSBC series or approved equal.

3. Hazardous Location Cable Terminations: Cable termination shall be listed to UL 2225 for Class I, Division 1 or 2 as required by the environment, made from nickel plated brass or 316 stainless steel, and equipped with IP68 deluge seal. Crouse-Hinds ADE-1FC series or equal from Killark, or Appleton.

2.05 GROUNDING

A. Ground Rods: UL 467 listed, Copper-clad steel, sectional threadless type. Unless noted otherwise, minimum size shall be $\frac{3}{4}$ " $\varnothing$ x 10 feet.

B. Clamps and Connectors: Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.

1. Bolted Connectors: Clamp type, sized for pipe, copper or copper alloy, bolted pressure type with at least two bolts.
2. Welded Connectors: Exothermic welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.
3. Compression Connectors: UL listed, 600 V, and minimum 75°C, dual rated for copper and aluminum, one or two-hole type as applicable, irreversible compression type connectors.

2.06 ELECTRICAL BOXES AND FITTINGS

- A. Hazardous Locations: All electrical boxes shall be Class 1 Division 1 explosion proof rated in accordance with Article 500 of the National Electrical Code.
 - 1. Wet locations –Junction box listed to UL 886, shall be Crouse-Hinds GUE or GUB series with copper free body and cover or equal from Killark, Appleton, or Robroy. For small conduit sizes, EAB series boxes with hubs are acceptable.
 - 2. The Contractor shall provide and install all back boxes as required for the equipment and/or systems under the terms of the contract.
 - 3. All cabinets and boxes shall be secured by means of toggle bolts on hollow masonry; expansion shields and machine screws or standard preset inserts on concrete or solid masonry; machine screws or bolts on metal surfaces; and wood screws on wood construction.
- B. Non-Corrosive/Ordinary/Unclassified Areas: All pull and junction boxes shall be substantially well made code gauge galvanized steel boxes, with bolted or screw covers. Located as approved by the Architect/Engineer. All pull or junction boxes must conform to the NEC. Box covers exposed in finished rooms shall be painted two coats as directed.
 - 1. The minimum size at junction boxes shall be a 4 inch square galvanized outlet box with blank cover in unfinished areas and with a 2 gang plaster ring and blank plate in finished areas.
 - 2. Boxes in wet locations shall be equipped with conduit hubs and shall be gasketed and water proof.
 - 3. All switch and outlet boxes shall be approved galvanized steel knockout boxes. All outlet boxes must conform to provisions of Article 314 of the N.E.C.
 - 4. The Contractor shall provide and install all back boxes as required for the equipment and/or systems under the terms of the contract.
 - 5. All cabinets and boxes shall be secured by means of toggle bolts on hollow masonry; expansion shields and machine screws or standard preset inserts on concrete or solid masonry; machine screws or bolts on metal surfaces; and wood screws on wood construction.

2.07 PANELBOARDS

- A. All equipment shall be the product of one manufacturer as manufactured by ABB/GE, Square D, AB Rockwell, Cutler Hammer or Siemens.
- B. All panelboards shall be listed to UL 67. All panels shall be dead front with circuit breakers and copper buses in accordance with schedule and notations on the electrical drawings.
- C. All busses shall be silver-plated copper, or tin-plated copper.
- D. Overcurrent Protective Devices: Unless indicated otherwise, overcurrent protective devices shall be molded case type circuit breakers. Circuit breakers shall comply with and be listed to UL 489. The individual breakers shall be calibrated and sealed to eliminate tampering or unauthorized changes in calibration. Breakers shall be interchangeable and capable of being operated in any position.
 - 1. Individual circuit breakers shall be fully rated for the available short-circuit rating of the panelboard, series ratings are prohibited.

2. Two-pole and three-pole branch breakers shall be single-handle, common trip type. 15 and 20 amp breakers shall be (SWD) switching duty rated. All branch breakers shall be 20 amp one-pole unless indicated otherwise.
 3. Tandem or half-sized circuit breakers will not be acceptable.
 4. Breakers shall be the bolt-on type.
 5. Where circuit breakers are indicated to be GFCI type, they shall be listed to UL 943, Class A, with a trip at 4-6 mA.
- E. A suitable directory or card holder shall be mounted on the inside of each cabinet door. Each circuit thereon shall bear a typewritten notation covered with transparent celluloid designated exactly what it controls. These cards shall be made out after the circuits have been connected.
- F. Enclosures: Cabinets, wiring gutters, etc., shall be in strict accordance with the standard practice of the NEMA and the National Electric Code. All panels shall be flush or surface mounted as shown on the drawings. Provide the NEMA environmental rating suitable for the environment or as indicated.
1. Doors shall have concealed hinges.
 2. Panel and trim shall be factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
 3. Back Boxes: Unless indicated otherwise, galvanized steel.
- G. Lighting and Appliance Panelboards:
1. NEMA PB 1, lighting and appliance branch-circuit type.
 2. Doors shall be secured with flush latch with tumbler lock. All panelboards on a project shall be keyed alike.
 3. All Lighting Panels shall be 120/208V three-phase 4 wire, main breaker as indicated, and bolt-on branch breakers as indicated. Minimum short-circuit rating as indicated, but not less than 10 kAIC. Square D type NQ or NF or equal.

2.08 SAFETY AND DISCONNECT SWITCHES

- A. Disconnect switches for all equipment and motors indicated on the plans shall be by one Manufacturer Square D, General Electric, Cutler Hammer or Siemens. Square D Catalog numbers are specified herein as a basis for quality and type of device to be installed.
- B. Disconnect horsepower rating shall be appropriate for the motor(s) served.
- C. Disconnects for integral horsepower motors, 3/4 horsepower and larger, and for equipment of similar capacity shall be NEMA KS 1, Type HD, industrial type, 600 V, fused or non-fused as indicated, 3 blades with solid neutrals where required and have provision of padlocking in the "ON" or "OFF" positions. Disconnect switches shall be listed to UL 98.
1. At exterior locations enclosures shall be NEMA Type 3R.
- D. Double Throw switches shall be heavy-duty industrial type, 600 V, fused or non-fused as shown on the plans, 3 blades with solid neutrals where required and have provision of padlocking in the "ON" or "OFF" position. At interior locations, enclosures shall be NEMA Type 1; at exterior locations enclosures shall be NEMA Type 3R. Switch shall be designed for manual transfer of loads from one supply to another for name plate Ampere ratings.

- E. Fuses for feeders, branch circuits, motors and other equipment shall be selected in types of ratings in accordance with NEC to provide a coordinated system of overcurrent protection, whereby if a fault or harmful overload should occur, only the fuses nearest the fault or overload will open.
- F. Fuses: Provide fuses for safety switches, as recommended by switch manufacturer, of classes, types, and ratings needed to fulfill electrical requirements for service indicated.
 - 1. Fuse Types:
 - a. Service Entrance: Class RK1, time delay.
- G. Provide one spare set of three of each size and type of fuses installed on the project.

2.09 SURGE PROTECTIVE DEVICE (SPD)

- A. SPD shall be Component Recognized in accordance with UL 1449 4th Edition, Standard for Safety, Surge Protective Devices, and UL 1283, Electromagnetic Interference Filters.
- B. SPD shall be a Type 2 device and shall be installed on the load side of the service disconnect overcurrent device per NEC.
- C. SPD shall incorporate thermally protected metal-oxide varistors (MOV's) as the core surge suppression component for the service entrance and all other distribution levels.
- D. SPD shall provide suppression for all modes of protection: L-L, L-N, L-G and N-G in WYE systems. For delta configured systems, the SPD shall have components directly connected between each phase conductor and between each phase conductor and ground.
- E. SPD shall have a minimum Short Circuit Current Rating (SCCR) of 200kA.
- F. SPD shall have a minimum surge current rating of 100 kA per phase (50 kA per mode).
- G. SPD shall be capable of protecting against and surviving 20,000 ANSI/IEEE C62.41 Category C3 impulses with less than 10% change in the baseline to final let-through voltage.
- H. UL 1449 Listed Voltage Protection Ratings (VPRs) shall not exceed the following:

VOLTAGE	L-N	L-G	N-G	L-L
208Y/120	700V	700V	700V	1200V
- I. SPD shall be designed to withstand a maximum continuous operating voltage (MCOV) of not less than 115% of nominal RMS operating system voltages.
- J. SPD shall have a minimum EMI/RFI filtering of -50dB at 100kHz using the MIL STD. 220A insertion loss test method.
- K. SPD shall be equipped with onboard visual and audible diagnostic monitoring. Red and green indicator lights shall provide full time visual diagnostic monitoring of the operational status of each phase. The SPD diagnostic monitoring devices shall be mounted on the front of the device. The diagnostic monitoring circuits shall continually monitor the operational status of the surge current diversion modules. No other test equipment shall be required for SPD monitoring or testing before or after installation.
- L. SPD shall have a response time no greater than one nanosecond for any of the individual protection modes.
- M. SPD manufacturer shall provide a warranty for a period of ten (10) years from the date of shipment against any SPD part failure.
- N. Provide Square D HWA series, Eaton SPC series, or equal.

2.10 WIRING DEVICES

- A. General: Provide factory-fabricated wiring devices, in types, colors, and electrical ratings for applications indicated and complying with NEMA Stds. Pub. No. WD 1. Receptacles shall be listed to UL 498. Where types and grades are not indicated, provide proper selection as determined by Installer to fulfill wiring requirements, and complying with NEC and NEMA standards for wiring devices. Provide ivory color devices and cover plates as indicated; color selection to be verified by Contractor with Architect/Engineer.
- B. GFCI Receptacles: Comply with NEMA Stds. Pub No WD1 as follows:
 - 1. GFCI: Provide specification duplex, ground fault circuit interrupter receptacles, termination type, capable of protecting connected down stream receptacles on single circuit, grounding type, UL 943 rated Class A, Group 2, 20-ampere rating, 125-volts, 60-Hz; with solid state ground fault sensing and signaling; with 5 milliamperes ground fault trip level; equipped with 20-ampere plug configuration, NEMA 5-20R. See plan for symbol indicating GFI receptacle grade.
 - a. Ground Fault Circuit Interrupter Type
 - b. 2-pole, 3-wire grounded
 - c. 20 Amp, 125 Volt
 - d. Specification Grade
 - e. Leviton No. 6898-G, Gray
- C. All weather proof cover plates shall be "In-Use" type that are raintight while in use and shall be die-cast zinc weather resistant. Provide neoprene type gaskets. Provide Intermatic model WP1010MXD or equal.

2.11 GROUND LEVEL PULL BOXES

- A. Handholes or box made from polymer concrete with polymer concrete cover. Made of sand and aggregate, bound together with a polymer resin, and reinforce with steel or fiberglass or a combination of the two.
- B. Acceptable manufacturers: Hubbell / Quazite, Oldcastle Precast, Highline Products.
- C. Quazite PG series or equal, nominal dimensions as required by quantity of internal junction boxes, 18 inches deep, stackable boxes. Box and lid tested and rated to SCTE 77 Tier 15. Provide bolt on lid labeled with appropriate service such as "Electrical".
- D. Hardware: Hardware shall be stainless steel with hex head bolt and washer.

2.12 WOOD POLE

- A. Provide class 5 wood pole with minimum height as required to provide communication to existing radio system. Pole shall conform to the requirements of ANSI 05.1, Standard Specifications and Dimensions for Wood Poles, and made from treated Douglas Fir.
- B. Preservatives: Pentachlorophenol pressure treated poles shall receive treatment in accordance with AWPAC P8, C1, and C4 with treatment rate of at least 0.45 for DF. New full length non-pressure treated poles shall receive a pentachlorophenol and heavy petroleum solution in accordance with AWPAC P8 and P9, and have not less than 5 percent pentachlorophenol by weight. The petroleum vehicle shall be dark enough to allow measurement of penetration into wood by color demarcation. Treatment method shall conform to AWPAC C8.

PART 3 - EXECUTION

3.01 ELECTRICAL WORK, GENERAL

- A. All electrical work shall be done in a neat and workmanlike manner as defined by NECA 1 "Standard Practices for Good Workmanship in Electrical Contracting".
- B. Installation of electrical systems, equipment and raceways shall be done in accordance with the latest version of the appropriate NECA standard.
 - 1. Installation of motors and motor controllers shall be in accordance with NECA 230.
 - 2. Installation of panelboards shall be in accordance with NECA 407.
- C. GFCI Receptacles and Devices: Unless specifically noted otherwise, GFCI receptacles shall be wired with the line side terminals only so that a ground fault trip only de-energizes that receptacle and allows other receptacles on the same branch circuit to remain energized.

3.02 ELECTRICAL SERVICE

- A. The Contractor shall verify the requirements of the utilities. The locations shown on the plot plan are reasonably accurate but the Contractor shall verify all conditions with each separate utility company. All work must be acceptable to the utilities.
- B. Provide electrical service as indicated on the drawings.
- C. Provide secondary conduit and wire from serving utility pole to the control panel as indicated on the drawings.
- D. Grounding of the electrical service shall be in accordance with the NEC and NECA 331 "Standard for Building and Service Entrance Grounding and Bonding". Provide grounding electrode conductor to each grounding electrode at each structure.

3.03 EQUIPMENT SUPPORT

- A. Application of Support Systems: Unless noted otherwise, types of raceway and equipment support systems shall be as follows:
 - 1. Outdoors and Exterior Environment: Galvanized steel strut and raceway support system.
 - 2. Outdoors and Exterior, Corrosive Environment: Stainless steel strut and raceway support systems.
- B. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
 - 1. To Wood: Fasten with lag screws or through bolts.
 - 2. To New Concrete: Bolt to concrete inserts.
 - 3. To Existing Concrete: Expansion anchor fasteners.
 - 4. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units. In corrosive environments, bolts shall be stainless steel.
 - 5. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
 - 6. To Light Steel: Sheet metal screws.

7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
- C. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

3.04 MINIMUM BRANCH CIRCUITS

- A. Power Branch Circuits: Unless indicated otherwise, minimum branch circuits shall consist of #12 ungrounded conductors, #12 grounded conductor, and #12 equipment grounding conductor in ¾" raceway.
 1. Where single pole circuit breakers or fuses are used for the branch circuit overcurrent protection, use of common neutrals on multi-wire branch circuits is prohibited.

3.05 COMBINING OF CIRCUITS IN RACEWAYS

- A. Combining of Circuits in Raceways:
 1. Permissible: For power branch circuits of the same voltage, it is permissible to combine circuits in the same raceway. For these instances, the Contractor shall adjust conductor sizes in accordance with NEC de-rating factors for number of current carrying conductors in a raceway and adjust conduit sizes as necessary for raceway fill at no additional cost.
 2. Prohibited:
 - a. Unless specifically indicated on the plans, control wiring shall not be routed in the same raceway as power branch circuits or feeder circuits.
 - b. Unless specifically indicated on the plans, analog signal wiring (4-20mA loop circuits) shall not be routed in the same raceway as control wiring.
 - c. Unless specifically indicated on the plans, analog signal wiring (4-20mA) loop circuits) shall not be routed in the same raceway as power branch circuits and feeders.

3.06 CONDUIT

- A. Electrical raceways shall be installed in accordance with NECA 101 "Standard for Installing Steel Conduit (Rigid, IMC, EMT)" and NECA 111 "Standard for Installing Nonmetallic Raceways (RNC, ENT, LFNC)" and NECA 605 "Installing Underground Nonmetallic Utility Duct".
- B. Application of Raceways: Unless noted otherwise, types of raceways shall be applied as follows.
 1. Exterior:
 - a. Above-grade: RMC.
 - b. Corrosive Environment: Stainless Steel IMC.
 - c. Vibrating Equipment (Transformers and Motors): LFMC
 2. Below Grade: RNC PVC, HDPE, or RTRC-XW.
 - a. Below Grade, general: RNC Schedule 40, or RTRC-XW.
 - b. Below Grade, Under Roadways, Railroads: HDPE Schedule 80.
 - c. Embedded in Concrete: RNC-40 or RTRC-XW.

3. Hazardous Locations: All conduit entries and electrical enclosures within a hazardous location shall have seals per Article 501 of the National Electrical Code. A sealing compound recommended by the fitting manufacturer shall be installed in all sealing fittings.
 - a. Exterior: Stainless Steel IMC.
 - b. Below Grade: Stainless Steel IMC.
- C. RMC: Each joint shall be made up wrench tight at couplings and unions, threaded hubs of junction box, device boxes, conduit bodies, etc. All sealing fittings shall be accessible.
- D. Conduit sizes for various numbers and sizes of wire shall be as recommended by the latest edition of the National Electric Code and the latest supplements thereto. Conduit size shall be increased in size when lead-covered cable is required by the National Electric Code or this specification.
- E. No conduit shall be used where the required number and sizes of wires cannot be easily "pulled in" and the Contractor shall be responsible for the selection of the conduit sizes. Conduit sizes shown on the drawings are "minimum" sizes in accordance with appropriate tables in the National Electric Code. If because of bends or elbows a larger conduit size is required, the Contractor shall so furnish without further cost to the Owner.
- F. The entire conduit system shall be installed complete, thoroughly cleaned and all conduit fished before the wires are pulled in. Conduit shall be continuous from outlet to outlet, cabinet or junction box, and shall be so arranged that wire may be pulled in with the minimum practicable number of junction boxes.
- G. Exposed conduit shall be run in straight lines at right angles to or parallel with walls, beams or columns. In no case shall conduit be supported or fastened to other pipe, or installed to prevent the ready removal of other pipe for repairs.
- H. The ends of all conduits shall be securely plugged, and all boxes temporarily covered to prevent plaster or dirt from entering the conduits. All conduit shall be thoroughly swabbed out with a dry swab to remove moisture and debris before conductors are drawn into place.
- I. The Contractor shall be entirely responsible for the proper protection of this work from the other trades on the job. When conduit becomes bent or holes are punched through same, or outlets moved after being roughed-in, the Contractor shall repair same as directed, without additional cost to the Owner.
- J. Changes in direction shall be made by bends in the pipe wherever possible and these shall be made smooth and even without flattening the pipe or flaking the finish. Bends shall be as long radius as possible and in no case smaller than the corresponding trade elbow. Long-radius elbows shall be used where necessary.
- K. RNC and RTRC: Nonmetallic raceway bends shall be made with factory fabricated bends whenever possible. Field bends shall be made with a hot-box designed for the purpose. Field bends shall not be made using a torch or flame. Raceways with torch burn marks shall be removed and replaced.
- L. Not more than four 90 degree bends will be allowed in one raceway run. Where more bends are necessary, a conduit or pull box shall be installed. All bends in 1 inch and smaller shall be made with a conduit bender and all larger sizes shall have machine bends.

- M. Where rigid conduits enter boxes, panels, cabinets, etc., they shall be rigidly clamped to the box by a locknut on the outside, and a bushing on the inside of the box for each conduit.
- N. All conduits shall enter the box squarely.
- O. Furnish and install insulated bushings as required by NEC Article 300.4(G). The use of insulated bushings does not exclude the use of double locknuts to fasten conduit to the box.
- P. For all exterior/outdoor conduit risers from below grade to above grade shall have an expansion fitting.
- Q. Conduits shall be supported at intervals not greater than 8 feet, within 3 feet of any bend and every outlet or junction box, panel, etc. This shall apply to vertical runs as well as horizontal runs.
- R. Where conduits are run individually, they shall be supported by approved pipe straps, or beam clamps. Straps shall be secured by means of toggle bolts on hollow masonry; expansion shields and machine screws or standard preset inserts on concrete or solid masonry; machine screws or bolts on metal surfaces; and wood screws on wood construction.
- S. No perforated straps or wire hangers of any kind will be permitted.
- T. All concrete inserts and pipe straps in ordinary locations shall be galvanized and shall be stainless steel in corrosive environments.
- U. All steel bolts, washers and screws shall be stainless steel, galvanized, or cadmium-plated in ordinary locations and shall be stainless steel in corrosive environments.

3.07 LUBRICANTS

- A. Where lubrication is required for pulling conductors or cables it shall be a compound specifically prepared for cable pulling and shall not contain petroleum and other products which will have a deteriorating effect on the cable insulation.

3.08 PULL WIRE

- A. A pull wire shall be installed in all empty conduits. In dry locations, pull wire shall be No. 16 gauge galvanized iron.
- B. In conduits under slab on fill below grade, or in damp locations pull wire shall be No. 12 AWG copper wire.
- C. Both ends of all pull wires shall be identified by means of labels or tags, reading "PULL WIRE" and shall be numbered to refer to the same pull wire.

3.09 EQUIPMENT GROUND

- A. Any conductor used solely for grounding purpose, equipment grounding, etc., shall be green unless bare.
- B. All wiring throughout the entire project for all of the various systems shall be furnished with a ground wire and color coded in accordance with the needs of the particular system. Wire must be color coded throughout its entire length.
- C. The practice of color coding or tagging wire ends will not be acceptable, except for feeders which shall be color coded at both ends.

3.10 INSTALLATIONS IN GROUND LEVEL PULL BOXES

- A. Install handholes and boxes level and plumb and with the orientation and depth coordinated with connecting raceways to minimize bends and deflections required for proper entrance. In paved areas, set so cover surface will be flush with finished grade. In unpaved areas, set covers of enclosure 1 inch above finished grade.
- B. Unless otherwise indicated, support boxes on a level bed of crushed stone or gravel, graded from ½ inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth. Minimum of 6 inches of gravel below box and for 4 inches beyond the outside walls of the box.
- C. Provide prefabricated raceway sweep bends to turn raceway up so that the raceway enters the enclosure vertically from the bottom
- D. Install all splices and taps, in a neat, professional and workmanlike manner, using insulated, booted, wiring connectors created especially for the intended application. Only wiring connectors with a “submerible” or “Direct Burial (DB)” designation will be accepted. Do not use hand-made squeeze-ons, tape wrapped ball connections, or connectors not suitable for use with conductors utilized.
- E. For handholes with more than one conduit entry and exit, identify each raceway within the handhole. Identify the destination of each raceway. For raceways containing control circuits, identify originating control panel and next destination of circuits. Identification may be legibly handwritten with permanent ink (Sharpie) or with permanent pre-printed vinyl adhesive label.

3.11 WOOD POLE INSTALLATION

- A. Pole Holes: Dig pole hole full size from top to bottom, and allow room for temping bars on all sides.
- B. Depth of holes shall be as required to provide pole setting depths specified here in below.
- C. Remove water from holes before filling, and tamp backfill thoroughly for full depth of holes. Mechanical compaction shall be used for backfilling pole and anchor holes.
- D. Bank excess excavated earth around poles. After completion of entire project, refill and revamp as necessary for prevention of undue settlement.
- E. Remove and dispose of any excess excavated material from parking or surfaced areas.
- F. Measure setting depth of holes which are located on sideslopes of hills, from the low side of the holes.

- G. Pole Setting Depth, Minimum: Comply with the following table, or refer to Drawings, as applicable:

POLE LENGTH, FT.	SETTING DEPTH
20	5'-0"
25	5'-0"
30	5'-6"
35	6'-0"
40	6'-0"
45	6'-6"
50	7'-0"
55	7'-6"
60	8'-0"

END OF SECTION

SECTION 33 09 30
INSTRUMENTATION AND CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. This section describes the control panel for submersible sewage lift station pumps, and appurtenances comprising a complete power, and control system as specified hereinafter and shown on plans.
- B. Contractor shall provide a completely integrated and wired, functional system with all cost for integration included in the bid price.
- C. Instructions to Bidders:
 - 1. Base Bid: Shall include the custom control panel provided by the integrator. This is the control panel shown on sheets U.04 and U.05 of the drawings and described in paragraph 2.02 of this specification.
 - 2. Bid Alternate. In lieu of the custom control panel, the bid alternate shall utilize a packaged duplex pumping control panel for pump power distribution and control. See specification section 01 10 00 - Special Provisions for more info. In addition to this, the integrator will be responsible to provide a telemetry panel in a NEMA 3R enclosure to forward lift station monitoring parameters to the radio system in the same manner as the custom control panel. Signal list to be determined by provided packaged lift station control panel. Telemetry panel shall include enclosure, terminals strips to gather external wiring, incoming power overcurrent protection, anti-condensation heating provisions, DC power supply (as needed), UPS with power loss monitoring, surge arrestor, PLC (as needed to gather signals), radio, and internal wiring, relays, and fusing as needed for a complete and functioning system.

1.02 SUBMITTALS

- A. Furnish integrated power, lighting and control system supplied by one supplier who assumes overall responsibility for coordination, engineering, preparation of shop drawings or submittals showing detailed wiring diagrams (including point-to-point connections between all components of control equipment and other equipment) and for performance of all equipment specified/required for this project. System Integrator and Contractor are considered same. See attached drawing for Major equipment and Work Required.
- B. All submittals for review shall be delivered electronically in PDF format. The electronic file shall be text searchable and include bookmarks that identify major sections of the document for ease of navigation. Shop drawings shall consist of legible printed text and high quality CAD drawings.
- C. Shop Drawings: The Contractor shall submit to the Engineer, for approval, shop drawings for all major items of equipment and/or systems giving manufacturer's name, a bill of materials, catalog numbers, etc. and shall in particular set forth any variations or substitutions from that intended by plans and specifications.
 - 1. Manufacturer's data on equipment and components.

2. Shop Drawings:
 - a. Component and equipment layouts in each control cabinet/enclosure.
 - b. Power and control diagrams. Diagrams shall include terminal designations and wiring labeling identification tags.
 - c. Point-to-point connections between all components of control equipment and other equipment.
- D. Final as-built drawings of equipment shall be provided upon completion of project and as a minimum to include:
 1. Overall dimension details for each equipment item and all door mounted operator devices including nameplate designations.
 2. Interconnecting wiring diagrams of all equipment including field device connections provided by the system installer.
- E. Operations And Maintenance (O&M) Manual
 1. Detailed (O&M) manuals shall be provided with complete information concerning the operation of the system and support necessary with diagnostics down to the module and card replacement level.
 2. Complete O&M manuals with all project specific information shall be furnished in three-ring binders with indexed tab sections. In addition to two paper copies, two electronic versions shall be provided in PDF format on separate flash drives. The PDF file shall be organized the same as paper copy complete with bookmarks for each indexed tab section.
 3. A detailed written description of system hardware, software, and system operation shall be provided. The description of hardware and software shall identify pertinent references to sections of standard hardware and software manuals where operational procedures are detailed. Control loops shall be fully described in the O&M manual.
 4. A Bill of Materials for each control panel shall be provided.
 5. Data sheets shall be supplied for all significant equipment used in the system. The data sheet shall include, as a minimum, the component name, manufacturer, model number, quantity, and any special O&M characteristics.
 6. A listing of all recommended spare parts shall be included in the O&M manuals.

1.03 QUALITY ASSURANCE

- A. All hardware and software pertaining and used for this project, as described herein after shall be non-proprietary, heavy-duty, industrial grade which are commercially available. Proprietary components, subassemblies, and devices will be unacceptable.
- B. An authorized representative of the control system manufacturer shall approve the control system installation, shall calibrate as required for proper operation and shall be present to place into operation.
- C. The system(s) and components shall be products of a manufacturer who has an acceptable experience record for not less than 5 years in furnishing and servicing similar equipment.
- D. All equipment provided shall be assembled, tested and certified by the manufacturer at one plant with a UL certified test report to indicate that all equipment had been tested to conform to the specification requirements.

- E. Manufacturer shall warrant the control and alarm system to be free of defective material and workmanship for a period of one year from date of acceptance provided the equipment has been operated and maintained in accordance with the manufacturer's recommendations. The Contractor shall be obligated to furnish and install at no charge to the Owner, replacement material items or unit proven defective within this warranty period. This warranty shall not be construed to cover lights, fuses, or other items normally consumed in service or those items that have been damaged due to outside forces such as vandalism, etc.

PART 2 - CONTROL SYSTEMS AND COMPONENTS

2.01 ACCEPTABLE SUPPLIERS

- A. Automatic Systems Co., Ames, Iowa
- B. HOA Solutions, Lincoln, Nebraska
- C. Electric Pump, Des Moines, Iowa

2.02 CONTROL SYSTEM

- A. General: Provide control panel(s) as indicated on the plans and described herein.
 - 1. U.L. Approval: The control panel shall be constructed in compliance with Underwriter's Laboratories Industrial Control Panels listing and shall utilize U.L. listed and recognized components. The panel shall bear the Underwriter's Laboratory label serialized for intrinsic safety extensions for industrial control in hazardous area (sewage wet well).
 - 2. Provide all components necessary for the full functionality of the control panel. Use of interposing relays for PLC inputs and outputs, and other control panels or control boards are considered incidental and shall be included in the Bid price.
 - 3. All field wiring shall be terminated on grouped termination strips.
 - 4. All terminal strips shall have a unique identification label. All wiring shall have a unique identification label with 2 inches of each wire termination identifying either the wire ID or the terminal ID. There shall be a laminated control diagram adhered to the inside surface of the control panel door with the terminal ID's and wiring ID's clearly legible.
 - 5. Intrinsically Safe: Control panels shall employ intrinsically safe relays when wiring to level switches in classified areas.
 - 6. Grouping Pilot Devices: All pilot devices shall be grouped by load, i.e. all pilot lights, control switches, and pushbuttons dedicated to a motor/load shall be grouped together. Each grouping of pilot devices to a motor/load shall have a common layout that is identical for each motor/load.
- B. Master Control Scheme Modifications: Within the scope of this project, the overall water control monitoring system shall be updated to include alarms from the proposed lift station.
- C. Proposed Lift Station Sequence of Operation: The lift station panel shall provide for the following sequence of operations for two lift pumps:
 - 1. The lift station is modeled off existing lift station control panels currently in service in town. The intent of this design is to match the existing control panels.
 - 2. Each lift pump shall each have an HAND-OFF-AUTO control switch with a green run light.

3. Each lift pump shall each be equipped with an individual elapsed time meter. An additional elapsed time meter shall be provided that indicates length of time that simultaneous pump operation occurs. Elapsed time meters shall record in hours and tenths of hour.
4. Lift Pumps shall be controlled via a level transducer in the lift station wet well. Pumps shall start when the wet well level reaches the elevations listed on the contract drawings. Set points shall be easily adjusted by Owner's personnel.
5. The control panel shall be equipped with a three position switch to determine the mode of alternation the PLC will implement. The options shall be Pump 1 Lead / Pump 2 Lag, Pump 2 Lead / Pump 1 Lag, and Automatic Alternation. When in automatic alternation mode, Lift Pumps shall be configured to automatically alternate between lead-lag between successive pump starts. Control shall allow both lead and lag pumps to operate in parallel should the level in the wet well continue to rise above the starting level for the lead pump "ON" to the lag pump "ON" level. Upon a receding wet well, all pumps shall stop at the pump "OFF" low water level elevation. Pumps switched to the OFF position shall not alternate.
6. When the HIGH LEVEL float is reached and alarm condition shall be generated, all pumps will remain ON until the water recedes to the LOW WATER LEVEL, and a red pilot light shall be energized. In addition to PLC control for this function, there shall be redundant hard relays that bypass the PLC and perform this function, send an alarm condition to the owner, and activate the alarm strobe.
7. A red pilot light shall also be energized for LOW WATER LEVEL.
8. A pushbutton shall be provided to reset the high water level alarm.
9. PLC shall incorporate a delay for lag pumps when lift station is being powered by the generator. This is in order to prevent simultaneous motors starting after switching over to backup power when the lift station is at the high water level.
10. Pump Interlocks:
 - a. Each lift pump shall be interlocked to shut off and be locked out upon detection of phase loss, motor over-temperature, and pump overload. Each lift pump shall have a reset button for motor over temperature and motor overload.
 - (1) Motor Overload lockout shall be internal to starter. Provide mechanical reset pushbutton to allow for overload reset through inner door.
 - b. Each lift pump shall each have two pilot lights, one to indicate motor over-temperature, and the other for seal chamber leak detection.
11. If an alarm condition is recognized, a signal shall be sent from the PLC to a control relay. This relay shall send a signal to a radio for Owner notification and shall also energize a strobe light. Common alarm conditions shall be capable of being de-energized through an alarm acknowledge pushbutton. The following conditions received by the PLC shall trigger the PLC to output a common alarm signal:
 - a. Lift Pump 1 Failure consisting of:
 - (1) Lift Pump 1 Overtemp
 - (2) Lift Pump 1 Seal-Fail

- b. Lift Pump 2 Failure consisting of:
 - (1) Lift Pump 2 Overtemp
 - (2) Lift Pump 2 Seal-Fail
- c. Wet Well Level is calling for lead pump to run, but neither pump running signal is received within 15 seconds.
- d. Wet Well Level is calling for lag pump to run, but no second pump running signal is received within 15 seconds.
- e. Power Failure/Phase Loss
- f. Wet Well Low Low Level

2.03 COMPONENTS

A. Control Panel Enclosure: Outdoors Locations

- 1. Shall be rated NEMA Type 4X Stainless Steel, outdoor rated.
- 2. Panel shall be surface mount, locking, with vandal-resistant viewing window indoor to view internally mounted control switches and lights. Door(s) shall pistol-grip latch handle with 3 point latch.
- 3. Dimensions on the plans are estimated only, the Contractor shall coordinate location of all devices for proper clearances and ensure that actual dimensions of enclosure are adequate.
- 4. The control panel enclosure shall have a separate inner door. The inner door shall be a minimum of .080" steel painted to match exterior and shall be hinged. All panels, lights, switches, and overload resets shall be mounted through the inner door. Inner door shall be latched with tool-less quarter turn latches.
- 5. Unless specified otherwise, the exterior and interiors of all control panel enclosures are to be phosphatized, then finished in baked enamel paint inside and outside. All cutouts are to be painted so that no raw metal is unprotected. Unless indicated otherwise, color shall be ANSI standard gray. If specified, a special color shall be provided, color chosen at time of approval submittal. After final installation, any damage to the paint finish shall be touched up as required by the Engineer.

B. Control Panel Wiring:

- 1. All wiring shall comply with the latest edition of the National Electrical Code.
- 2. Internal control wiring shall be a minimum of #14 AWG XHHW, stranded copper not less than 600 volt rated. See Specification Section 26 00 00 and plans for panel branch circuits and motor wiring.
- 3. Internal panel wiring shall be completed at the factory in a professional manner. Wiring shall be bundled in wire duct for ease of field modification or tracing, except for the required bundling with wire ties on the run to door mounted components. Wiring duct shall be sufficient in size to allow only a 50% fill when integrators wiring is complete. Wiring duct shall be attached to enclosure with screws. Adhesive only is not acceptable. All field interconnections shall be made to tubular clamp style terminal strips.

4. All components on the interior of the panel shall be labeled with permanent markings, which shall identify the device, cross-referencing it with the schematic drawings. This shall include every relay, time delay, meter, switch and all other system components and assemblies mounted within and on the control panels. Control wiring from field devices external to panel shall be numbered at termination points with permanent sleeve type devices and land on terminal strips with ring tongue connectors. The supplied panel as-built ladder diagram shall accurately reflect the numbers installed.
 5. For control panels with a NEMA 4X enclosure or otherwise installed in corrosive areas, all terminals shall be coated with an anti-oxidant intended for use with both aluminum and copper materials. This includes all terminals for relays, PLC's, motor starters, power supplies, and pilot devices.
 6. Wiring which carries low voltage signals subject to transients shall be protected by isolation and shielding.
 7. All interface wiring with motor starters shall be via interface relays. Direct output from the PLC to field terminals is not acceptable.
- C. All control wiring entering and exiting the control panel shall be connected to terminal blocks. All terminals shall have an pre-printed identification label. Terminal blocks shall have the following maximum ratings:
1. NEMA rated tubular screw with pressure plate type.
 2. NEMA rated three tier for analog signals.
 3. 600V AC/DC
 4. Maximum Current: 55 Amps
 5. Wire Range - #22 - #8
 6. Wiring Standards:
 - a. 120 VAC Power – Black
 - b. 120 VAC Neutral – White
 - c. Ground – Green
 - d. 120 VAC Control – Red
 - e. PLC Input – Blue
 - f. PLC Output – Yellow
 - g. 24 VDC Power – Brown
 - h. 24 VDC Common – Brown/White stripe
 - i. Analog Input, two conductor shielded
 - j. Analog Output, two conductor shielded
 7. Tubular Screw Approved Manufacturer - Allen Bradley 1492-CA1 or equal by Phoenix Contact.
 8. Three tier Approved Manufacturer – Allen Bradley 1492-WTF3 or equal be Phoenix Contact.
- D. Control Switches & Pushbuttons:
1. Control switches / pushbuttons shall be heavy duty industrial grade, oil tight design, positions as required.

2. Contact rating shall conform to NEMA A-600 designation.
 3. Approved Manufacturers:
 - a. Allen Bradley Type 800T/800H
 - b. Square D Class 9001 Type K
 - c. GE Type CR104P
 - d. Cutler-Hammer/Eaton 10250T Series.
- E. Indicating Lights:
1. Indicating lights shall be heavy duty, oil tight design, push-to-test type, transformer type with 6- or 12-volt LED lamps.
 2. Lights shall be labeled with engraved phenolic tags indicating what is served/indicated.
 3. Approved manufacturers:
 - a. Allen Bradley Type 800T/800H
 - b. Square D Class 9001 Type K
 - c. GE Type CR104P
 - d. Cutler-Hammer/Eaton 10250T Series.
- F. Control/Timer Relays:
1. Plug-in type with dust cover, socket and locking spring when relay mounted horizontally.
 - a. Coil: continuous operation at 120 VAC +10% unless shown otherwise.
 - b. Contacts, 3 pole, double throw, minimum
 - c. 10 amps (unless shown otherwise), make-break, 120 VAC, resistive.
 - d. Insulation resistance: 1000 megohms at 500 VDC.
 - e. Dielectric: 2000 VAC, 60 Hz
 2. Operating time:
 - a. 34 milliseconds (nominal) energization
 - b. 100 milliseconds (nominal) de-energization
 - c. Mechanical Life: 10,000,000 operations
 - d. Temperature: 0° to 70°C
- G. Lightning/Transient Surge Arrestor: A lightning/transient surge arrestor shall include an epoxy encapsulated, solid state, three stage, back panel mounted surge protector. The surge protector shall have the following maximum ratings:
1. Line Voltage: 130 VAC
 2. Line Current: 15.0 Amp
 3. Transient Voltage: 6000V Peak
 4. Leakage Current @ 120 VAC: Line to Neutral - 1.0 mA, Neutral to Ground - 0.5 mA
 5. Operating Temperature: -40 degrees C to +85 degrees C

- H. Direct Current Power Supply:
1. Integrator to provide direct current power supply as necessary to carry the load and provide the voltage as necessary with components being supplied. If no equipment requires direct current power supply, this may be omitted.
 2. Series pass semiconductor type, adjustable with + 1.0% regulation, no load to full load from all causes, total.
 3. Operating source: 120 VAC, 60 Hz
 4. Output protection: current limiting and "crowbar" circuit. Fuses not permitted.
 5. At initial operation power supply loading shall not exceed 50% of rating under any condition.
 6. Convection cooled.
- I. Uninterruptible Power Supply (UPS): The UPS shall be capable of running the control panel for a time period of 5 minutes and achieve a full recharge within 6 hours. UPS shall be listed to UL 1778 and suitable for use in a UL 508 listed control panel. UPS shall have overload protection. UPS shall have surge protection that meets IEEE C62.41 Category A. UPS shall meet FCC Part 15, Subpart B, Class A. Batteries shall be sealed maintenance-free lead acid type. UPS shall carry a minimum of a two year warranty.
- J. Strobe Alarm Light: Alarm light shall be heavy-duty strobe, 65-95 flashes per minute. The strobe light shall be constructed with a cast aluminum housing, 360 degree light with heavy duty amber lens, solid state circuitry and amperage draw of 3 amps or less.
- K. Power Circuit Breakers: Molded Case, thermal-magnetic trip elements, sized for the motor load and motor inrush. Multipole circuit breakers shall be single-handle common trip type. Circuit breakers for controls, heaters, receptacles, lights, and other components may be DIN rail mounted or otherwise securely mounted. Tandem or half-sized circuit breakers are not acceptable. All circuit breakers shall be fully rated for the available short-circuit. Breakers shall be listed to UL 489.
- L. Non-Reversing Starters: Provide full-voltage alternating-current across-the-line non-reversing starters of types, sizes, ratings, and NEMA sizes as indicated. Provide additional contacts for elapse time meters and additional equipment as indicated on the plans. Provide ambient-compensated, Class 20 trip overload sensing relays to provide over-current protection. Provide door mounted overload reset pushbuttons.
- M. Phase Failure Protection: A phase failure relay with an adjustable nominal voltage setting shall be provided. Relay shall be energized during fault free operation and de-energized during detection of phase imbalance fault, phase failure, phase reversal fault, overvoltage or undervoltage. This device shall have a 0.3-30 second adjustable dropout time delay.
- N. Motor Overtemp / Seal Fail Relays: Motor overtemp / seal fail relays shall be coordinated with the pump supplier to be compatible with the pumps supplied. The relays may be required by the pump manufacturer to be a specific model from a specific manufacturer. The output contacts of the are shown in an assumed Normally Open position. If the output contacts from the relay are otherwise, provide interposing relays or adjust control wiring accordingly to make the lock-outs function as intended at no additional cost to the Owner.
- O. GFCI Receptacles: See Electrical Work Specification 26 00 00 for information concerning GFCI Receptacles.

- P. Surge Protection Device: See Electrical Work Specification 26 00 00 for information concerning the Surge Protection Device.
- Q. Condensation Protective Heater: One 120 VAC, fan driven heater with integral thermostat shall be supplied in the control panel. Size as appropriate for cabinet volume to prevent condensation.
- R. Light Fixture: Control Cabinet shall have an interior LED light strip mounted between the front door and inner door. The inner door shall have a cut out or similar means to allow the inside door to open. The enclosure interior light shall be controlled by a manual light switch. LED light to be UL listed, minimum length of 12 inches, and include lens.
- S. Programmable Logic Controller (PLC)
 - 1. Module Requirements:
 - a. Provide mounting chassis, power supply module, main processor module, communications modules, and discrete I/O and analog I/O modules.
 - b. Communications Modules: Provide a communications module to interface with future radio communications. Provide DeviceNet or Profibus communications modules and Ethernet/IP Module. Provide any necessary software for this communication in the bid.
 - c. Communication Ports: The PLC shall have a USB port for connection of a laptop computer for uploading and downloading programming and for troubleshooting.
 - 2. I/O requirements:
 - a. Digital Inputs:
 - (1) Optically-isolated input rated to withstand up to 1500 VAC transients.
 - (2) Voltage as indicated, 110 percent.
 - (3) Maximum of eight (8) input points per common neutral.
 - (4) LED indicator.
 - b. Digital outputs:
 - (1) Voltage as indicated.
 - (2) Capable of continuously driving up to 0.5 Amp load.
 - (3) LED indicator.
 - c. Analog inputs:
 - (1) Field selectable 0 to 20 mAdc or -10 to +10 VDC.
 - (2) Input isolation rated 500 volts minimum.
 - (3) 16-bit analog-to-digital conversion having overall accuracy of +0.75% of full scale or better.
 - (4) 160 ohm input impedance (on 4-20 mA input); 210K ohm input impedance (on -10.5 to +10.5 VDC input).
 - d. Analog outputs:
 - (1) 4 to 20 mAdc range. Nominal span of 4-20 mAdc.
 - (2) Digital-to-analog conversion having overall accuracy of +0.75% of full scale or better.

- (3) Capable of driving up to 500 ohm load.
 3. Sufficient live spare I/O shall be provided to accommodate 25 percent of each type of digital input, digital output, analog input, and analog output. All spare I/O shall be completely wired to field terminals.
 4. Acceptable Manufacturers: Provide Allen Bradley MicroLogix 1100 series PLC to ensure compatibility with existing system and match other city operated lift stations.
- T. Radio Telemetry
1. A radio shall be provided for transmitting alarm conditions to the city's existing radio system. The radio system shall include a spread spectrum radio, coaxial cable, an antenna system, antenna lightning arrestor, antenna grounding system, and all associated equipment for a complete and operating system.
 2. The radio shall be of the same type as currently installed for the city's existing system monitoring to ensure compatibility. Provide CalAmp Phantom II or other radio compatible with existing system.
 3. Antenna: Provide antenna type as required to communicate with existing radio system. If additional height is necessary, provide mast to mount antenna on top of wooden pole.
 4. Coaxial Cable:
 - a. Provide heliax cable in sufficient lengths to prevent any splices between each antenna and corresponding radio transceiver. Provide self-flaring connectors; provide o-rings between cable and connector and between connector components. All components shall be suitable for outdoor installations.
 5. Antenna Lightning Arrestor:
 - a. Shall meet the following specifications:
 - (1) Maximum Surge Rating: 50kA ANSI C62.1 8/20 waveform 500 Joules
 - (2) Turn On Voltage: 600 VDC
 - (3) Turn On Time: 2.5 nano-seconds
 - (4) VSWR: 0.1dB over frequency range
 - (5) Temperature: A50 Degrees C to 125 Degrees
 6. Antenna Grounding System:
 - a. Each antenna coaxial cable system shall have a grounding clamp in order to provide proper RF grounding of the coaxial cable system. The clamps shall be constructed of solid copper.
 - b. Provide a common electrical ground for the radio, telemetry equipment, surge protectors and coaxial cable. The common ground point shall be the shortest possible wire runs. Provide and install a bare copper 8 AWG wire and 8 foot grounding rod to ground each antenna and antenna mast. Ground antenna masts in accordance with NEC Code.
 7. Antenna Installation: The Contractor shall coordinate with subcontractors regarding the installation of all antennas and masts.

2.04 ADDITIONAL ITEMS

- A. Junction boxes: Provide junction boxes rated for NEC Class 1, Division 1, Group D installations for motor cables, over temperature sensor and seal failure electrode probe wiring, as well as transducer and float control wiring. Junctions shall allow disconnection and connection of all wiring to junction box without entering wet well and without removing hazardous location seal-off. Boxes shall be mounted within in-grade handhole as shown on the plans. Cable entry shall be sealed with flexible, waterproof seals.

PART 3 - EXECUTION

3.01 DELIVERY, STORAGE, AND HANDLING

- A. All electronic electrical equipment and any other items sensitive to humidity, moisture, and temperature must be stored in a heated, dry enclosure at a site approved by the Engineer. After installation, similar protection must be provided until the Owner's acceptance of the system.

3.02 INSTALLATION

- A. Install equipment in accordance with manufacturer's recommendations and as shown on plans.
- B. Identification:
 - 1. All control wires shall have self-adhesive wraparound type identification labels at each panel, enclosure, and termination. Identification of each wire shall be unique and shall match terminals within the control panel. Labels shall be machine printed by thermal transfer or equivalent process.
 - 2. All terminals shall be identified with a unique identification label. All PLC I/O terminals shall be identified.
 - 3. Power branch circuiting within control panels shall identify the panelboard and circuit number within the control panel. Identification shall be self-adhesive wraparound type labels.
 - 4. All circuit breakers, motor starters, and relays shall have machine printed thermal transfer or equivalent process adhesive identification label.
 - 5. Inner Door Identification Labels: All pushbuttons, pilot lights, control switches, and meter displays shall have an engraved phenolic identification plate which identifies which pump and function of the component.
 - 6. Cabinet Labels: Where more than one control cabinet is provided under this contract, the control panel shall have an identification nameplate. Nameplate shall be engraved phenolic type.
- C. Programmable Logic Controller shall be completely programmed by the integrator. This shall include modification in the field to obtain the mode of operation as specified herein. Programming shall be done in such a manner as to allow complete access to the program in the future by the Owner for changes and or additions. Program locks shall not be used. Complete program documentation shall be provided within the program.

3.03 START-UP AND ADJUSTMENT

- A. Contractor shall be responsible for start-up and check-out of control system as required to fine tune system in order to assure that a complete and efficiently working system is turned over to the Owner.
- B. System check-out shall be in presence of Engineer to verify proper operation of system.

- C. Furnish services of manufacturer's authorized representative after all start-up and system check out and adjustments have been completed, to instruct Owner's personnel concerning maintenance and operation of the equipment.

3.04 TRAINING

- A. Representative of the control system manufacturer shall provide one half day of training for the Owner's personnel in the operation and maintenance of the installed control system at the project location. Training schedule shall be coordinated with and shall be acceptable to the Owner.

END OF SECTION

SECTION 43 26 13
SUBMERSIBLE CHOPPER PUMPS

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The work in this section shall include furnishing and placing into operation two (2) submersible chopper pumps, with discharge connections, lifting chains and guide bars as specified herein and as indicated on the Drawings. The complete pump station shall be submersible up to 65 feet above the inlet pipe level.

1.02 REFERENCES

- A. American Society for testing and material (ASTM) International
 - 1. A 48: Standard Specification for Gray Iron Castings.
 - 2. A743: Standard Specification Iron-Chromium Nickel, Corrosion Resistant,
- B. American National Standards Institute (ANSI):
 - 1. B16.1: Standard for Cast Iron Pipe Flanges and Flanged Fittings, 125 lb.
- C. Hydraulic Institute: Current Standards.
 - 1. HI 14.6: Hydrodynamic Pumps for Hydraulic Performance Acceptance Tests.
 - 2. HI 11.6: Submersible Pump Tests

1.03 SUBMITTALS

- A. Submittal data shall be provided to show compliance with these specifications, plans or other specifications that will influence the proper operation of the pump(s).
- B. Standard submittal data for approval must consist of:
 - 1. Pump Performance Curves.
 - 2. Pump Outline Drawing.
 - 3. Station Drawing for Accessories.
 - 4. Electrical Motor Data.
 - 5. Typical Installation Guides.
 - 6. Technical Manuals and Parts List.
 - 7. Printed Warranty.
 - 8. Manufacturer's Equipment Storage Recommendations.
 - 9. Manufacturer's Standard Recommended Start-Up Report Form.
- C. Lack of the above requested submittal data is cause for rejection.
- D. Operation and Maintenance Manuals:
 - 1. Contractor shall furnish a minimum of three (3) copies of complete manufacturer's operation, maintenance and parts data for all equipment to be installed in the project (none of which will be returned) in three-ring binders and (1) copy supplied on a solid-state hard-drive in pdf format.
 - 2. The manuals shall include a table of contents, list of shop drawings and supporting documents, special item O & M manuals and operating instructions.
 - 3. The following material shall be submitted:

- a. Manufacturer's Operation & Maintenance Manual.
 - b. Manufacturer's Parts Manual and Specifications.
 - c. Manufacturer's Service and Repair Manual.
 - d. Repair Parts Source.
 - e. Detailed Drawings of Equipment.
 - f. Detailed Electrical Schematic Drawings, if applicable.
4. All equipment that may require spare parts shall be documented and data furnished as to source of spare parts.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver only materials that fully conform to these specifications, or for which submittals have been provided to Engineer and reviewed and approved for use.
- B. Store materials in a protected environment on pallets.
- C. Materials and appurtenances contaminated with mud and surface water shall be removed from the site and not used in construction unless thoroughly cleaned, inspected and approved by Owner.
- D. Handle all materials so as to avoid damage. Remove from the site and replace any damaged materials.

1.05 DESCRIPTION

- A. The Contractor shall furnish materials, equipment and labor to furnish, install and test the pumping system complete with the pumps, motors, mounting bases, piping, valves and appurtenances, as indicated on the contract drawings and as herein specified.

1.06 WARRANTY

- A. The pumps shall be provided with prorated 60 months (5 years) warranty against defects in materials and or workmanship. Unless otherwise specified, all other equipment shall be warrantied for 12 months (1 year). The warranty shall be in printed form and previously published as the manufacturer's standard warranty for all similar units manufactured, latest revision. Upon warranty occurrence, the manufacturer's authorized service center shall remove the pump, repair, reinstall and provide start up on the repaired pump. A detailed failure analysis shall be submitted to the Owner for their records summarizing corrective action taken.
- B. The manufacturer shall guarantee clog-free operation for a period of 12 months from the date of start-up of the pumps by the local authorized factory representative. A certificate shall be provided to the Owner on the day of start up with the local contact information and effective date. If the impeller clogs with typical solids or modern trash debris normally found in domestic wastewater during this period, an authorized representative shall travel to the jobsite, remove the pump, clear the obstruction and reinstall the pump at no cost for the Owner. A written report shall be provided to the Owner detailing the service call with pictures for verification purposes.

PART 2 - PRODUCTS

2.01 GENERAL OPERATIONAL REQUIREMENTS

- A. The Contractor shall supply and install two (2) submersible chopper pumps with discharge connections, discharge pipes, guide bars, cable holder lifting chains.

- B. The chopper pumps shall have a semi open multi vane self-cleaning impeller designed to transport storm water and sewage from slaughterhouses and from food production process.
- C. The impeller together with a cutting ring mounted in the pump housing bottom shall cut solids into small pieces. Both shall be wear resistant and made of high chromium cast iron with at least 24% chrome against sand and grit which is expected to enter the pump station with the sewage or the storm water. Impellers that have surface hardening (by thermal, coating, etc.) will not be allowed.
- D. Each pump shall be capable of producing the following design point at full motor speed:
 - a. Design Point (60 Hz): 175 gpm @ 77.2' TDH
- E. Acceptable Manufacturers
 - 1. Flygt - Model FP 3127

2.02 SUBMERSIBLE SEWAGE PUMPS

- A. Each station shall be equipped with two (2) submersible, close-coupled chopper pumps.
- B. Each pump shall be equipped with an 11hp submersible electric motor, capable of operating on a 208 volt, 3 phases, 60 hertz voltage supply.
- C. The hydraulics of the pump shall be capable of handling raw industrial wastewater from food production or storm water with fibrous materials like wet wipes.
- D. The impeller together with a cutting ring mounted in the pump housing bottom shall cut solids into small pieces. It shall be possible to replace the cutting ring.
- E. The pump shall be capable to operate without any limitation between 50% and 125% of the Best efficiency point (B.E.P) of the performance curve.
- F. The required shaft power (P2) in the guaranteed duty point shall be less than 10 hp. The motor speed shall be max.: 3600 rpm. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output HP and efficiency. This chart shall also include data on starting and no-load characteristics
- G. The impeller shall be mounted on the motor shaft. Couplings shall not be accepted.
- H. Due to the presence of sand, the impeller and the chopper ring shall be made of high chromium cast iron with at least 24% chrome. Impellers that have surface hardening (by thermal, coating, etc.) will not be allowed.
- I. The pump motor shall be induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. It shall be permanently submersible according to standard IEC 60034 and protection class IP 68.
- J. The stator windings shall be insulated with moisture resistant Class H insulation rated for 356°F.
- K. The motor shall be capable of no less than 30 evenly spaced starts per hour and be able to operate throughout the entire pump performance curve from shut-off through run-out even when the motor is not submerged
- L. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal watertight contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable.

- M. It shall be possible to lift and lower the pumps on parallel guide bars and connect them to wet well mounted discharge connection. There shall be no need for personal to enter the wet well when removing or reinstalling the pumps.
- N. The pump housing shall be prepared for the assembling of a sump mixing valve. The discharge flange of the pump housing shall be 4".
- O. The junction chamber containing the terminal board shall be hermetically sealed from the motor by an elastomeric compression seal. Connection between the cable conductors and stator leads shall be made with threaded compression type binding posts permanently affixed to a terminal board. The motor and the pump shall be produced by the same manufacturer.
- P. The motor shall be protected by 3 thermal switches embedded in the stator set to open at 260°F and one leakage sensor floating type located in the stator chamber. The sensor and the switches shall be connected to the control panel which shall stop the motor and send an alarm when the sensors are activated.
- Q. The pump shall be Explosion approved according to FM CLASS 1. DIV 1 "C" & "D".
- R. The cable entry shall consist of dual cylindrical elastomer sleeves, flanked by washers, all having a close tolerance fit against the cable and the cable entry. Epoxies, silicones, or other secondary sealing systems shall not be considered acceptable.
- S. The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated and have a nominal L10 lifetime of 50,000 hours. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable.
- T. The shaft shall be sealed by a tandem mechanical shaft seal system consisting of two seals, each having an independent spring system. The seals shall require neither maintenance nor adjustment and shall be capable of operating in either clockwise or counterclockwise direction of rotation without damage or loss of seal function.
- U. Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication. Seal lubricant shall be non-hazardous.
- V. Where a seal cavity is present in the seal chamber, the area about the exterior of the lower mechanical seal in the cast iron housing shall have cast in an integral concentric spiral groove. This groove shall protect the seals by causing abrasive particulate entering the seal cavity to be forced out away from the seal due to centrifugal action.
- W. The Materials of construction shall be as follows:
 - 1. Pump housing: ASTM A-48, Class 35B
 - 2. Impeller and insert ring: A 532 ALLOY III A (25% Chrome)
 - 3. Stator housing: ASTM A-48, Class 35B
 - 4. Shaft: ASTM A479 S43100-T.
 - 5. Shaft seal: Pump side: - Corrosion resistant Tungsten carbide WCCR
 - 6. Shaft seal Motor side: - Carbon-Aluminum oxide (AL2O3)

- X. All castings must be blasted before coating. All wet surfaces are to be coated with two-pack oxyrane ester Duasolid 50. The total layer thickness should be at least 120 microns. Zink dust primer shall not be used.
- Y. The motor shall be equipped with 65 feet of cable suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet.
- Z. Each completed and assembled pump/motor unit shall undergo the following factory tests at the manufacturer's plant prior to shipment. The Manufacturer shall provide on demand a copy of his quality control plan for these tests and an ISO 9001 factory certificate:
 - 1. Minimum 3-point hydraulic performance test
 - 2. No-Leak seal integrity test
 - 3. Electrical integrity test

2.03 EQUIPMENT FOR WET WELL INSTALLATION

- A. For each pump, the Contractor shall supply and install a discharge connection made of cast iron ASTM A-48, Class 35B.
- B. The outlet flange of the discharge connection shall be 4" drilled according to ANSI B16.1-89; tab.5.
- C. The pump(s) shall be automatically and firmly connected to the discharge connection, guided by no less than two parallel guide bars extending from the top of the station to the wet well mounted discharge connection. The material of the guide bars shall Stainless steel AISI 316.
- D. The length of the guide bars shall be as shown in the Drawings and they shall fasten at the top of the station with a guide bar holder made of Stainless steel AISI 304 or 316.
- E. For each pump, the Contractor shall supply and install a cable holder made with 4 hooks of Stainless steel AISI 304 or 316.
- F. There shall be no need for personnel to enter the wet-well.
- G. The sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be accepted. The entire weight of the pump/motor unit shall be borne by the pump discharge elbow. No portion of the pump/motor unit shall bear on the sump floor directly or on a sump floor mounted stand.

2.04 LIFTING EQUIPMENT FOR PUMPS

- A. Each pump shall be fitted with 28 feet of stainless steel lifting chain or lifting cable (verify with pump manufacturer recommendation). The working load of the lifting system shall be 50% greater than the pump unit weight.

2.05 MONITORING AND CONTROL: CONTROL & STATUS RELAIS (FLYGT MINICAS)

- A. Each pump shall be controlled by an Alarm unit to control thermal and leakage sensors. The power supply shall be Power supply: 24V AC/DC + / -10% (45-65Hz) designed for an ambient temperature between -20° to 60°C.

2.06 LEVEL CONTROLS

- A. Primary control shall be by submersible level transducer; Secondary control shall be by floats.
- B. Submersible Level Transducer
 - 1. The following submersible level transducers shall be provided as indicated on the Drawings:
 - a. Wet Well
 - (1) Quantity: One (1)
 - 2. Transducers shall have a sealed, stainless steel body with a polyurethane cable designed for long life.
 - 3. Minimum accuracy $\pm 0.25\%$ throughout the range of operation (0-16 ft WC) with 4-20 mA output.
 - 4. Install a 4" diameter Sch. 80 PVC stilling well down to 6" above floor to house each pressure transducer. Stilling wells shall be strapped to adjacent walls with S.S. bands.
 - 5. Provide stainless steel cable system for mounting.
 - 6. Sensor housing to be 316 SS with 2.5" dia. Viton diaphragm with silicon oil fill liquid.
 - 7. Level transducer shall be capable of being installed in a Class 1, Division 1 environment.
 - 8. Acceptable Manufacturers:
 - a. KPSI 700
- C. Level Control Floats:
 - 1. Description: Single pole mercury switch inserted into a 316 stainless steel, Teflon coated, epoxy encapsulated housing. Intrinsically safe design. Precast base section shall be furnished and installed.
 - 2. Mounting: Stainless steel mounting clamp included. Quantity one (1), 1" diameter stainless steel pipe and mounting assembly supplied by Contractor. Pipe length as required to mount floats at level of operation as indicated on the Plans.
 - 3. Wet Well Operation:
 - a. Quantity: Five floats (5)
 - b. Operation:
 - (1) High Water Level (HWL – Alarm; Both Pumps On)
 - (2) Low Water Level (LWL – Alarm; Both Pumps Off)
 - (3) Low Low Water Level (LLWL – Alarm; Both Pumps Off)
 - 4. Acceptable Manufacturers
 - a. Anchor Scientific; ECO Float

PART 3 - EXECUTION

3.01 GENERAL

- A. Perform installation in accordance with Contract Documents and manufacturers specifications.

- B. Installation shall include furnishing the required oil and grease for initial operation. The grades of oil and grease shall be in accordance with the manufacturer's recommendations.

3.02 EXAMINATION

- A. A factory trained technician shall examine the work area prior to beginning work and check the following:
 - 1. The environment is safe to begin working in.
 - 2. All surfaces are ready to receive work.
 - 3. All tools are in the proper location and are in good condition.
 - 4. Grounding of the system.

3.03 FIELD QUALITY CONTROL

- A. Provide services of equipment manufacturer's field service representative(s) to:
 - 1. Inspect equipment covered by these Specifications.
 - 2. Supervise pre-start adjustments and installation checks.
 - 3. Point to point test of all wiring.
 - 4. Functional test of all equipment alarms and controls.
 - 5. Conduct initial startup of equipment and perform operational checks. The test shall demonstrate to the satisfaction of the Owner that the equipment meets all specified performance criteria, is properly installed and anchored, and operates smoothly without exceeding the full load amperage rating of the motor.
 - 6. Conduct field flow test demonstrating with pressure gauge and calculating flow measurement to demonstrate pumps are operating at design conditions.
 - 7. Provide a written statement that manufacturer's equipment has been installed properly, started up and is ready for operation by Owner's personnel.
 - 8. The Manufacturer's representative shall provide a minimum of one trip and a six 6-hour day of service time to review installation and provide operator training on the pumps.
 - 9. The Manufacturer's representative shall provide a minimum of one separate follow-up trip and a 2-hour day of service time to provide additional operator training on the pumps.

END OF SECTION

**THIS PAGE CONCLUDES
THE
SPECIFICATIONS
FOR THE
PUBLIC IMPROVEMENTS WEST GOLFVIEW SUBDIVISION 2026
FOR
CARROLL, IOWA**



Certified Testing Services, Inc.

419 W. 6th Street • P.O. Box 1193 • Sioux City, Iowa 51102 • Phone (712) 252-5132

April 18, 2024

Attn: Mr. Randy Krauel
City of Carroll
627 N. Adams Street
Carroll, Iowa 51401

Re: Addendum
Geotechnical Engineering Report
Proposed Lift Station and
Sanitary Sewer
Carroll, Iowa
CTS Job No. G7296A

Dear Mr. Krauel:

Introduction

This letter is an addendum to our original report. The reason for this addendum is that Mr. Steve Locke, Water & Wastewater Senior Engineer for JEO Consulting Group, requested that additional borings be performed for the sanitary sewer and manholes. Our work was authorized by Mr. Aaron Kooiker, City Manager for the City of Carroll, by signing our proposal on March 18, 2024. Our work was performed in accordance with CTS Proposal No. 6732 dated March 14, 2024. Please make a copy of this addendum and attach to your original report.

Subsurface Conditions

Mr. Locke provided additional project information in an email on March 11, 2024. The email included Sheets M.02 and M.03 that were titled “Sanitary Plan and Profile” and were dated March 5, 2024. CTS understands that the project will include approximately 1,665 feet of sanitary sewer and five manholes running north of the lift station in Carroll, Iowa. CTS also understands that sanitary sewer will vary in depth from 7 feet to 25 feet below the existing grade and areas of the site will require up to 4 feet of fill to bring the site to final grade.

The borings were advanced utilizing hollow stem auger drilling methods and soil samples were routinely obtained during the drilling process. Select soil samples were later tested in the laboratory to determine the material’s engineering properties for our evaluation. Soil sampling and laboratory testing were accomplished generally in

accordance with ASTM procedures. The borings were backfilled with on-site material after performing our work; however, it should be noted that some settlement of the backfill material may occur and it is the client's responsibility to backfill the borings once we have left the site.

On April 5, 2024, CTS performed Borings B2, B3, and B4 along the proposed sanitary sewer. JEO personnel located the borings in the field and provide elevations at the boring locations. It should be noted that the borings were moved approximately 7 feet east due to the slope at the staked boring locations. The surface elevations at the boring locations were determined in the field using conventional leveling techniques and are for general reference only and the original staked locations were used as benchmarks. The approximate locations of the borings are presented in the table below and are presented on the attached boring location plan.

BORING NUMBER	BORING LOCATION
B2	42.088280° N; -94.868756 ° W
B3	42.089378° N; -94.868760 ° W
B4	42.091024 ° N; -94.868753° W

The subsurface conditions encountered below the surface material generally consisted of lean to fat clay fill, lean clay topsoil, lean clay glacial sediment, sandy lean clay leached till, lean clay leached till, and lean clay with sand weathered glacial till. Free water was encountered in the borings at depths varying from 2.4 feet to 8.5 feet below the existing ground surface. It should be noted that with the relatively impervious nature of the material encountered in the borings that a long monitoring time would be required to determine the static water level, which was beyond our scope of work. It should also be noted that a groundwater table is typically encountered at the top of the glacial till material.

The boring logs are attached and should be reviewed for specific information at individual boring locations. The boring logs include soil/rock descriptions, stratifications, penetration resistances, and locations of the samples and laboratory test data. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on these boring logs. The samples that were not altered by laboratory testing will be retained for 30 days from the date of this addendum and then will be discarded.

Discussion

The main concern from a geotechnical standpoint is for the sandy lean clay and soft lean clay materials to slough into the excavations due to the very high-water level that was encountered between the depths of 2.4 feet to 8.5 feet below the existing ground surface in the borings at the time of drilling. The sandy lean clay material was encountered between the depths of 6 feet and 20 feet in Boring B2 and the soft lean clay material was encountered below 15 feet in Boring B3. It is anticipated that these materials will slough into the excavation which may cause the sides of the excavations to collapse and cause an unsafe condition. The contractor should dewater the excavation in order to minimize the potential for sloughing to occur. The contractor should also have suitable sized pumps available to remove accumulated water and the contractor should consider using trench boxes in order to provide a safe work area.

The second concern is that the manhole structures may need to be designed to resist buoyancy forces based on the high-water level. One method of reducing the effect of buoyancy forces is to oversize the base of the manhole structures so that the weight of the soil above the footings will help to resist the buoyancy force. A unit weight of 115 PCF may be used for the material above the water table and a unit weight of 53 PCF may be used for the soil below the water table and may be used to design the base of the manhole structures to counter act the buoyancy force. The site will need to remain dewatered until after the manhole structures have been backfilled to prevent the structures from moving vertically due to buoyancy forces. CTS also recommends that a working platform consisting of a minimum of 12 inches of Class A material be placed below the manhole structures. CTS also recommends that a geogrid be placed below the Class A material and the geogrid should be Tensar[®] BX1100, Mirafi[®] BXG 110 or equivalent.

The existing materials in Borings B2 and B4 are suitable for support of the proposed utilities; however, CTS recommends that a minimum of 12 inches of Class A material be placed below the utilities in Boring B3 and will likely be needed in other areas. It should be noted that the amount of Class A material that will be needed should be determined in the field by the representative of the geotechnical engineer. The existing material is suitable for use as backfill material in utility trenches; however, the materials are very moist to wet and would need to be moisture conditioned, dried, prior to being used as trench backfill. It may be more economical to remove and replace the very moist to wet material than to dry the material due to the amount of space and time required to dry the material. CTS recommends that the pipe manufacturer's and SUDAS recommendations for bedding the utilities be followed.

CTS recommends that lean clay material be used to raise the grades above the utilities and sand material may be used for trench backfill, as well as the existing lean clay site material. Fill material should be placed in accordance with the recommendations

in the "Site Preparation" section of the original report, with the exception that materials placed in nonstructural areas should be compacted to a minimum of 88 percent of the material's standard Proctor maximum dry density. Lean clay in nonstructural areas should be placed at moisture contents where the recommended percent compaction can be achieved. CTS does not recommend alternating cohesive and noncohesive material.

Closure

With the exception of the above recommendations, the recommendations presented in our original report should be followed. If you have any questions pertaining to this addendum or if we may be of further service, please contact our office.

Respectfully submitted,
CERTIFIED TESTING SERVICES, INC.


Jed A. McInerney, P.E. IA 22686
Senior Geotechnical Engineer


James A. Bertsch, P.E. IA 12121
Senior Geotechnical Engineer

JAM/JAB/jb

cc: JEO Consulting Group, Inc.

Attachments: Boring Location Plan
Boring Logs
Boring Profiles



CB4

CB3

CB2

Google Earth

Image © 2024 Airbus

LOG OF EXPLORATORY BORING

Sheet 1 of 1



Job Number: **G7296**
 Project: **Proposed Lift Station and Sanitary Sewer**
 Date Started: **4/5/24**
 Date Completed: **4/5/24**

Boring No.: **B-2**
 Boring Location: **Carroll, IA**
 Drill Type: **Hollow Stem**
 Ground Elev.: **1286.0**

Depth in Feet	Graphic Log	Sample Type	 Shelby Tube	 Standard Split Spoon	 Water Level ATD	USCS	Blow Counts SPT (N) Blows/Foot	Moisture Content, %	Dry Density (PCF)	% Saturation	Hand Penetrometer (TSF)	Unconfined Comp. Strength (TSF)	Liquid Limit %	Plastic Limit %	Plasticity Index %	Cone Penetrometer (Blows/ 1-3/4")
			 Modified California	 Grab Sample	 Water Level After 24-Hours											
			SOIL DESCRIPTION													
			6-Inch Root Zone													
			LEAN CLAY WITH ROOTS, Dark Brown, Moist, Topsoil			CL		27	91	87	2.50					
5			LEAN CLAY, Dark Brown, Very Moist, Medium, Glacial Sediment (With Sand, Light Brownish Gray)				3-2-3 N= 5	28								
			SANDY LEAN CLAY, Medium Yellow Brown and Gray, Wet, Medium to Stiff, Leached Till			CL		19	110	100	2.50					
10			(Sand Lenses)				2-3-3 N= 6	19								
15							5-7-5 N= 12	19								
20			LEAN CLAY, Medium Gray, Wet, Stiff to Very Stiff, Weathered Glacial Till			CL	5-3-4 N= 7	23								
25							5-9-8 N= 17	22								
30							4-4-6 N= 10	25								
			END OF BORING AT 30 FEET FREE WATER WAS ENCOUNTERED AT 8.1 FEET AT TIME OF DRILLING													

Page 175

LOG OF BORING G7296.GPJ CERTIFIED TESTING.GDT 4/18/24

LOG OF EXPLORATORY BORING

Sheet 1 of 1



Job Number: **G7296**
 Project: **Proposed Lift Station and Sanitary Sewer**
 Date Started: **4/5/24**
 Date Completed: **4/5/24**

Boring No.: **B-3**
 Boring Location: **Carroll, IA**
 Drill Type: **Hollow Stem**
 Ground Elev.: **1288.6**

Depth in Feet	Graphic Log	Sample Type	 Shelby Tube	 Standard Split Spoon	 Water Level ATD	USCS	Blow Counts SPT (N) Blows/Foot	Moisture Content, %	Dry Density (PCF)	% Saturation	Hand Penetrometer (TSF)	Unconfined Comp. Strength (TSF)	Liquid Limit %	Plastic Limit %	Plasticity Index %	Cone Penetrometer (Blows/ 1-3/4")	
			 Modified California	 Grab Sample	 Water Level After 24-Hours												
SOIL DESCRIPTION																	
			6-Inch Root Zone			CL	3-3-3 N= 6	20									
			LEAN CLAY, Yellow Brown and Gray, Very Moist, Medium to Stiff, Glacial Sediment				3-2-4 N= 6	21									
5			(Light Gray)				2-3-4 N= 7	24									
						CL		25	100	100	3.00						
10			LEAN CLAY, Yellowish Orange and Light Gray, Wet, Medium to Soft, Leached Till														
15							1-2-2 N= 4	27									
20			(Brownish Gray)					33	88	100	0.50						
25			(Olive Gray)			2-3-2 N= 5	30										
30			(Light Gray)				30	93	100	1.50							
			END OF BORING AT 30 FEET FREE WATER WAS ENCOUNTERED AT 8.5 FEET AT TIME OF DRILLING														

Page 176

LOG OF BORING G7296.GPJ CERTIFIED TESTING.GDT 4/18/24

LOG OF EXPLORATORY BORING

Sheet 1 of 1

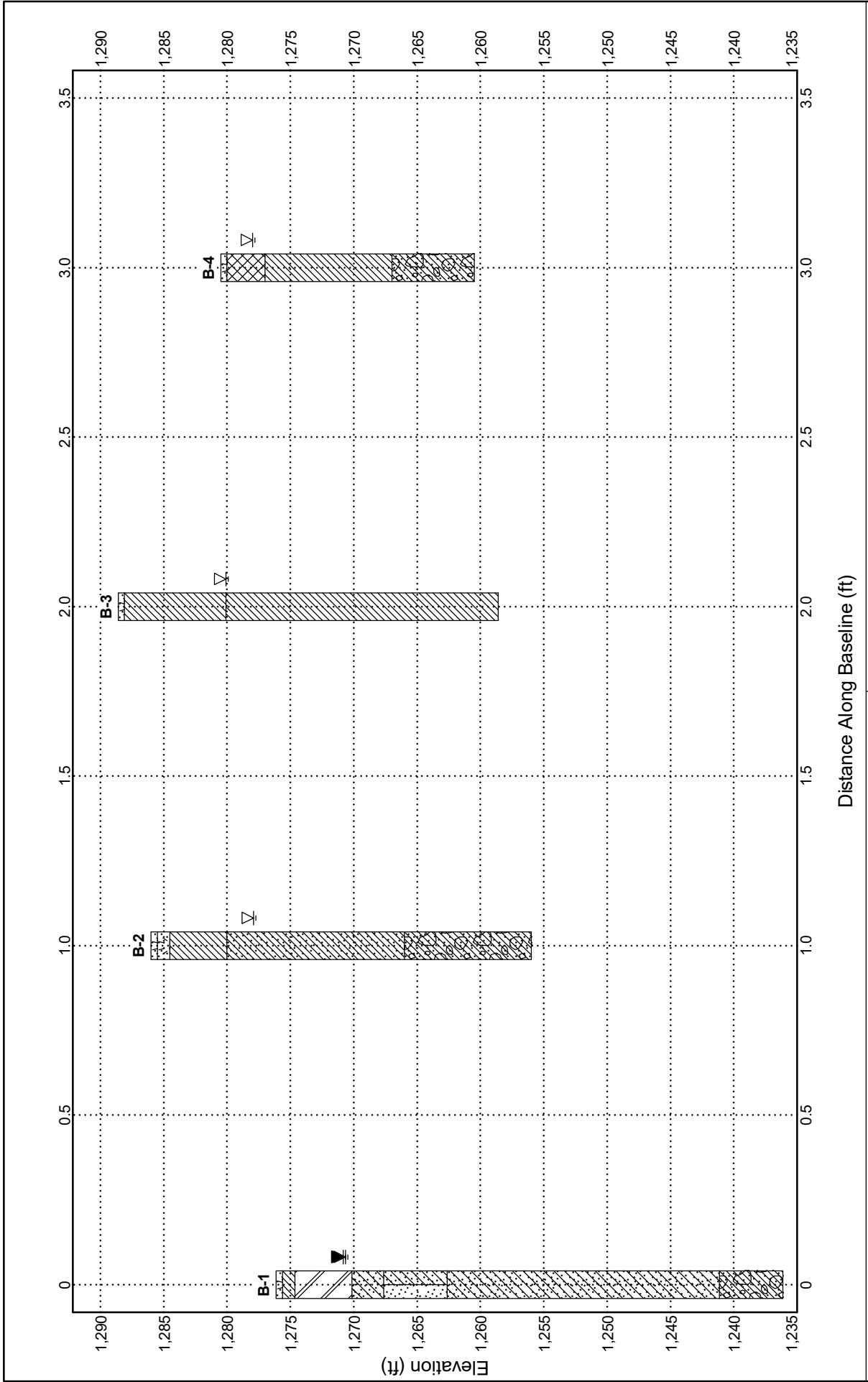


Job Number: **G7296**
 Project: **Proposed Lift Station and Sanitary Sewer**
 Date Started: **4/5/24**
 Date Completed: **4/5/24**

Boring No.: **B-4**
 Boring Location: **Carroll, IA**
 Drill Type: **Hollow Stem**
 Ground Elev.: **1280.5**

Depth in Feet	Graphic Log	Sample Type	 Shelby Tube	 Standard Split Spoon	 Water Level ATD	USCS	Blow Counts SPT (N) Blows/Foot	Moisture Content, %	Dry Density (PCF)	% Saturation	Hand Penetrometer (TSF)	Unconfined Comp. Strength (TSF)	Liquid Limit %	Plastic Limit %	Plasticity Index %	Cone Penetrometer (Blows/ 1-3/4")
			 Modified California	 Grab Sample	 Water Level After 24-Hours											
SOIL DESCRIPTION																
			6-Inch Root Zone													
			FILL, Lean to Fat Clay, Black and Light Brown, Very Moist to Wet					22	104	100	3.00					
5			LEAN CLAY, Light Gray and Yellowish Orange, Wet, Medium to Very Stiff, Oxidized, Leached Till			CL	1-2-2 N= 4	35								
								24	101	100	2.00					
10			(With Sand)				2-7-8 N= 15	19								
15			LEAN CLAY WITH SAND, Medium Gray, Wet, Medium, Weathered Glacial Till			CL		26	99	100	1.25					
20			END OF BORING AT 20 FEET FREE WATER WAS ENCOUNTERED AT 2.4 FEET AT TIME OF DRILLING				2-2-4 N= 6	26								

Page 177





Certified Testing Services, Inc.
 419 W. 6th Street, PO Box 1193
 Sioux City, Iowa 51102
 Telephone: 712-252-5132
 Fax: 712-252-0110

Proposed Lift Station and Sanitary Sewer
Carroll, IA

Project Number: G7296



Certified Testing Services, Inc.

GEOTECHNICAL ENGINEERING REPORT

Proposed Lift Station
Carroll, Iowa

Prepared For:
City of Carroll
Carroll, Iowa

CTS Project No. G7296



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: Matthew R. Dailey 3-6-2024

Name: Matthew R. Dailey, P.E. (date)

License Number: 19700

My license renewal date is December 31, 2025.

Pages or sheets covered by this seal:

This bound report contains 22 pages, including this page.
CTS File Number G7296



Certified Testing Services, Inc.

419 W. 6th Street • P.O. Box 1193 • Sioux City, Iowa 51102 • Phone (712) 252-5132

March 6, 2024

Attn: Mr. Randy Krauel
City of Carroll
627 N. Adams Street
Carroll, Iowa 51401

Re: Geotechnical Engineering Report
Proposed Lift Station
Carroll, Iowa
CTS Job No. G7296

Dear Mr. Krauel:

Certified Testing Services, Inc. is pleased to transmit our Geotechnical Engineering Report for the referenced project. This report includes the results of field and laboratory testing, recommendations for support of the lift station, and groundwater information.

We appreciate the opportunity to perform this Geotechnical Study and look forward to continued participation during the design and construction phases of this project. If you have any questions pertaining to this report or if we may be of further service, please contact our office.

Respectfully submitted,
CERTIFIED TESTING SERVICES, INC.

James A. Bertsch, P.E. IA 12121
Senior Geotechnical Engineer

Matthew R. Dailey, P.E. IA 19700
Geotechnical Department Manager

JAB/MRD/jb

cc: JEO Consulting Group, Inc.

GEOTECHNICAL ENGINEERING REPORT

**PROPOSED LIFT STATION
CARROLL, IOWA**

CTS PROJECT NO. G7296

PREPARED FOR

**ATTN: MR. RANDY KRAUEL
CITY OF CARROLL
627 N. ADAMS STREET
CARROLL, IOWA 51401**

MARCH 6, 2024

TABLE OF CONTENTS

	Page No.
PROJECT INFORMATION	1
Project Authorization	1
Project Description.....	1
Purpose and Scope of Services	1
 SITE AND SUBSURFACE CONDITIONS	 2
Site Location and Description.....	2
Subsurface Conditions	2
Water Level Measurements.....	3
 EVALUATION AND RECOMMENDATIONS	 3
Geotechnical Discussion	3
Site Preparation	4
Mat Foundation Recommendations	4
Below Grade Wall Design and Construction	4
 CONSTRUCTION CONSIDERATIONS.....	 5
Moisture Sensitive Soils/Weather Related Concerns.....	5
Drainage and Groundwater Considerations	5
Excavations	6
 REPORT LIMITATIONS	 6
 Appendix	
Boring Location Plan	
Boring Log	
Laboratory Test Data	
Soil Classification Chart and General Notes	

PROJECT INFORMATION

Project Authorization

Certified Testing Services, Inc. has completed a subsurface exploration for the proposed lift station project. Mr. Aaron Kooiker, City Manager for the City of Carroll, authorized our work by signing our proposal on February 6, 2024. This work was performed in accordance with CTS Proposal Number 6672 dated February 5, 2024.

Project Description

Mr. Steve Locke, Water & Wastewater Senior Engineer for JEO Consulting Group, Inc. provided project information in emails on February 2, 2024. The emails included an aerial showing the location of the project and Sheet D2.2 titled “Backwash Water Lift Station” as an example of the lift station design. CTS understands that project will consist of a lift station that will include a wet well and valve vault located on the west side of the Carroll Golf Course in Carroll, Iowa. The following is our understanding of the project.

Wet Well

- 72-inch diameter pre-cast manhole with precast base
- Proposed base of wet well foundation approximately 30 feet below existing grade
- Report is based on an assumed maximum mat foundation loading of 1,000 PSF
- Report is also based on less than 2 feet of cut/fill being required to bring the site around the wet well to grade

Valve Vault

- 72-Inch diameter pre-cast manhole with precast base
- Proposed base of valve vault foundation approximately 8 feet below existing grade
- Report is based on an assumed maximum mat foundation loading of 500 PSF
- Report is also based on less than 2 feet of cut/fill being required to bring the site around the valve vault to grade

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site to prepare recommendations for the construction of the lift station structures and provide groundwater information. Our scope of services included performing one soil test boring in the proposed lift station area to a depth of 40 feet below the existing grade and obtaining a 7-day water reading. The scope of work also included select laboratory testing, and preparation of this geotechnical report. This report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, provides recommendations for the design and construction of the lift station structures, to include bearing capacities and estimates of settlement, as well as provide groundwater information. The scope of services did not include an environmental assessment of the site.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The site is located on the west side of the Carroll Golf Course in Carroll, Iowa. The site was bordered by a building to the north, golf course to the east and south, and West Street to the west. At the time of drilling, the site surface was grass covered. The surface at the boring location was firm at the time of our site visit and the drill rig did not experience difficulty moving around the site.

Subsurface Conditions

The subsurface conditions at the site were explored with one soil test boring sampled to a depth of 40 feet below the existing ground surface in the proposed lift station area. JEO personnel chose the boring depth and located the boring in the field. JEO personnel also provided the surface elevation at the boring location.

The boring was advanced utilizing hollow stem auger drilling methods and soil samples were routinely obtained during the drilling process. Select soil samples were later tested in the laboratory to determine the material's engineering properties for our evaluation. Drilling, soil sampling and the laboratory testing were accomplished generally in accordance with ASTM procedures. The boring was backfilled with on-site material after performing our work; however, it should be noted that some settlement of the backfill material may occur and it is the client's responsibility to backfill the boring once we have left the site.

The subsurface conditions below the 6-inch root zone consisted of lean clay with sand glacial sediment, lean to fat clay glacial sediment, clayey sand with gravel glacial sand, poorly graded sand with clay glacial sand, and lean clay with sand weathered glacial till. It should be noted that the lean clay with sand glacial sediment was not tested in the laboratory due to minimal sample recovery and sand material encountered below the measured water table was not tested for natural moisture content in the laboratory. These materials, with the exception of the lean clay glacial sediment, are described in more detail in the following table.

Material	Moisture Content (%)	Dry Density (PCF)	Saturation (%)	Hand Penetrometer (TSF)	Standard Penetration Test (BPF)	Unconfined Compressive Strength (TSF)
Lean to Fat Clay Glacial Sediment	20-25	104	88	3.0	5	1.8
Clayey Sand Glacial Sand	-	-	-	-	13-23	-
Poorly Graded Sand Glacial Sand	-	-	-	-	11	-
Lean Clay Weathered Glacial Till	21-24	-	-	-	10-13	-

The boring log included in the Appendix should be reviewed for specific information at the individual boring location. The boring log includes soil/rock descriptions, stratifications, penetration resistances, and locations of the samples and laboratory test data. The stratifications shown on the boring log represent the conditions only at the actual boring location. Variations may occur and should be expected at other locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring log. Samples that were not altered by laboratory testing will be retained for 30 days from the date of this report and then will be discarded.

Water Level Measurements

Free water was encountered in the boring at a depth of 5.5 feet below the existing ground surface at the time of drilling and at a depth of 5.2 feet 7 days after drilling. Water levels should be expected to fluctuate with changes in climatic conditions. The water level measurement presented in this report is the levels that was measured at the time of our field activities.

EVALUATIONS AND RECOMMENDATIONS

Geotechnical Discussion

CTS has several concerns from a geotechnical standpoint. The first concern is the high water table that was encountered at a depth of 5.2 feet 7 days after drilling. In order to install the lift station structures safely, the contractor will need to address the water issue at this site. Based on our past experience, the site will need to be dewatered in order to perform the work. The sides of the excavation should meet OSHA Class C requirements or sheet piling should be used. The site should not be excavated below the water table until the site is dewatered to keep the sand from sloughing and creating an unsafe condition. Our boring log and attached grain size analyses should be provided to a dewatering firm to design a dewatering system for the project.

The second concern is that the lift station structures will need to be designed to resist buoyancy forces. One method of reducing the effect of buoyancy forces is to oversize the base of the lift station structures so that the weight of the soil above the footings will help to resist the buoyancy force. A unit weight of 115 PCF may be used for the material above the water table and a unit weight of 53 PCF may be used for the soil below the water table and may be used to design the base of the lift station structures to counter act the buoyancy force. The site will need to remain dewatered until after the lift station structures have been backfilled to prevent the lift station structures from moving vertically due to buoyancy forces.

The third concern is for the granular material that will be encountered at the bottom of the lift station structures to become disturbed due to normal construction activity. In order to provide for uniform foundation support CTS recommends that the top 8 inches to 12 inches of the subgrade be compacted to meet the recommendations in the "Site Preparation" section of this report prior to placing granular fill, rebar, or concrete.

The seismic site classification for the site soils, in accordance with ASCE 7, Chapter 20, is a Class D. Due to the low seismic activity in the area, we are not aware of special designs or details for foundation structures due to seismic action.

Site Preparation

CTS recommends that topsoil, vegetation, roots, soft material, organic material, material containing frost, and unsuitable soils in the construction areas be stripped from the site and either wasted or stockpiled for later use in landscaping. The existing granular site soils encountered in the boring are suitable for use as backfill around the perimeter of the lift station structures; however, the material will need to be dried. CTS does not recommend using the expansive lean to fat clay for backfill. A representative of the geotechnical engineer should determine the depth of removal at the time of construction.

After subgrade preparation and observation have been completed, fill placement may begin. Fill materials, if the site is to be raised, should consist of lean clay material and backfill material should be a uniform material consisting of granular material. Fill material should be free of organic or other deleterious materials, have a maximum particle size less than 3 inches and have a liquid limit less than 45 and plasticity index less than 22. Close moisture content control of the lean clay will be required to achieve the recommended degree of compaction.

Structural fill/backfill in structural areas should be placed in maximum loose lifts of 4 inches for hand compaction equipment and 8 inches for riding compaction equipment and compacted to at least 98 percent of the material's standard Proctor maximum dry density. Backfill for the excavations should be compacted to a minimum of 93 percent around the perimeter of the structure with the exception of structural areas under pavement, sidewalks and other structural areas, which should be compacted to a minimum of 98 percent of ASTM D698. Lean clay material should be compacted between a moisture content of a minus 3 percent to a plus 3 percent of optimum moisture content as determined by ASTM D698. Every other lift of compacted-engineered fill should be tested by a representative of the geotechnical engineer prior to placement of subsequent lifts.

Mat Foundation Recommendations

The lift station structures may be supported on a mat foundation supported on the existing granular material that has been compacted as discussed in the third concern in the "Geotechnical Discussion" section of this report. The subgrade would have a modulus of subgrade reaction, k value, of 144 kips per cubic foot (kcf), based on ½-inch of allowable settlement, friction factor of 0.4 and net allowable bearing capacity of 2,000 PSF that may be used in the mat design.

Below Grade Wall Design and Construction

The below grade walls for the lift station structures will need to be designed to resist lateral earth pressures. Based on the types of subsurface materials encountered by the borings, equivalent fluid pressures of 55 PSF/FT may be used as the horizontal components of the at-rest earth pressure on the below grade walls, an equivalent fluid pressure of 35 PSF/FT may

be used as the horizontal components of the active earth pressure on the freestanding below grade walls, which are permitted to rotate slightly and an equivalent fluid pressure of 400 PSF/FT may be used as the horizontal components of the passive earth pressure. A friction factor for the base of 0.4 may be used for the base of below grade walls. These pressures are limited to a horizontal grade above the foundation wall and no additional pressures at the surface. The following coefficients were used to determine the equivalent fluid pressures:

Internal friction angle	30 - 34 degrees
At-Rest K_o	0.45
Active Pressure K_a	0.3
Passive Pressure, K_p	3.25

The values presented above were calculated assuming positive foundation drainage is provided to prevent the buildup of hydrostatic pressure. If surface loads are placed near the walls, such as traffic loads, they should be designed to resist an additional uniform lateral load of one-half of the vertical surface loads. The above loads should be increased by the weight of water (62.4 PCF) using the above coefficients for the portion of the wall that will be below the groundwater level. CTS does not recommend that foundation drains be installed in that the water would need to be removed using pumps, which may cause sand to be removed that could undermine the foundations.

CONSTRUCTION CONSIDERATIONS

CTS should be retained to provide observation and testing of construction activities involved in the foundation, earthwork, and related activities of this project. CTS cannot accept responsibility for conditions that deviate from those described in this report, nor for the performance of the subgrade if not engaged to also provide construction observation and testing for this project.

Moisture Sensitive Soils and Weather Related Concerns

The fine-grained soils encountered at this site will be sensitive to disturbances caused by construction activities and to changes in moisture content. During wet weather periods, increases in the moisture content of the soil can cause significant reduction in the soil strength and support capabilities. In addition, soils that become wet may be slow to dry and thus significantly retard the progress of grading and compaction activities. It will, therefore, be advantageous to perform earthwork and pavement construction activities during dry weather.

Drainage and Groundwater Considerations

Water should not be allowed to collect in the foundation excavations or on prepared subgrade of the construction area during construction. Free groundwater was encountered at 5.2 feet below the existing grade 7 days after the field exploration was conducted and dewatering will be required in order to construct the lift station structures. Sandy soils were encountered below the water table and will cause construction problems due to sloughing and sheet piling may be required. It is possible that seasonal variations will cause fluctuations or a

water table to be present in the upper soils. A dewatering contractor should be hired to evaluate the site for groundwater control.

Excavations

In Federal Register, Volume 54, Number 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P". This document was issued to better enhance the safety of workers entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavation or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. The site clay materials are a Class B material and the site granular materials are a Class C and in accordance with OSHA criteria.

We are providing this information solely as a service to our client. CTS does not assume responsibility for construction site safety or the contractor's or other party's compliance with local, state, and federal safety or other regulations.

REPORT LIMITATIONS

The recommendations submitted are based on the available subsurface information obtained by CTS and design details furnished by Mr. Steve Locke, Water & Wastewater Senior Engineer for JEO Consulting Group, Inc. If deviations from the subsurface conditions noted in this report are encountered during construction, CTS should be notified immediately to determine if changes in the recommendations are required. If CTS is not retained to perform these functions, CTS will not be responsible for the impact of those conditions on the project.

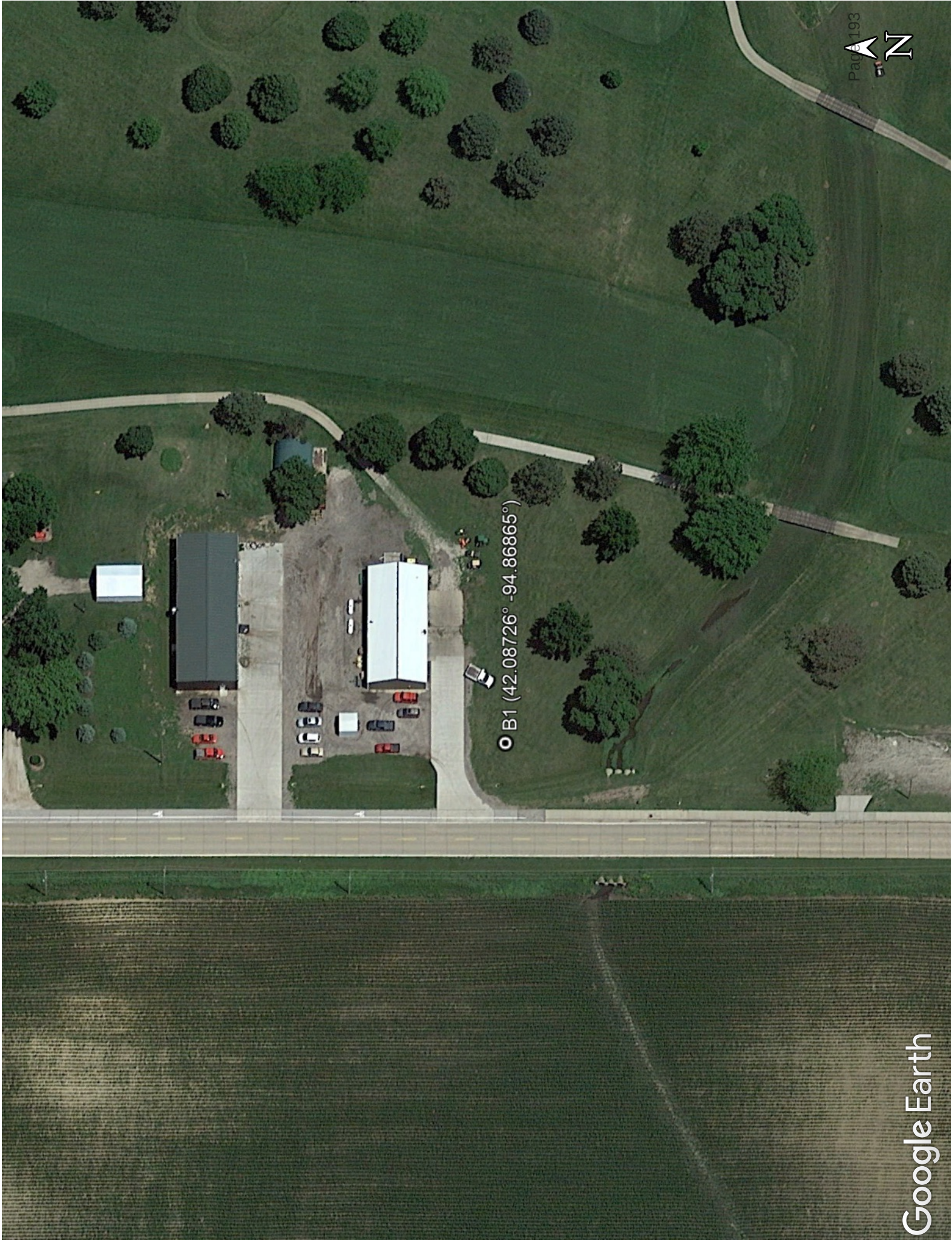
The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At that time, it may be necessary to submit supplementary recommendations. This

report has been prepared for the exclusive use of the City of Carroll and their consultants for the specific application to the Proposed Lift Station Project in Carroll, Iowa.

APPENDIX

BORING LOCATION PLAN



BORING LOG



LOG OF EXPLORATORY BORING

Sheet 1 of 1

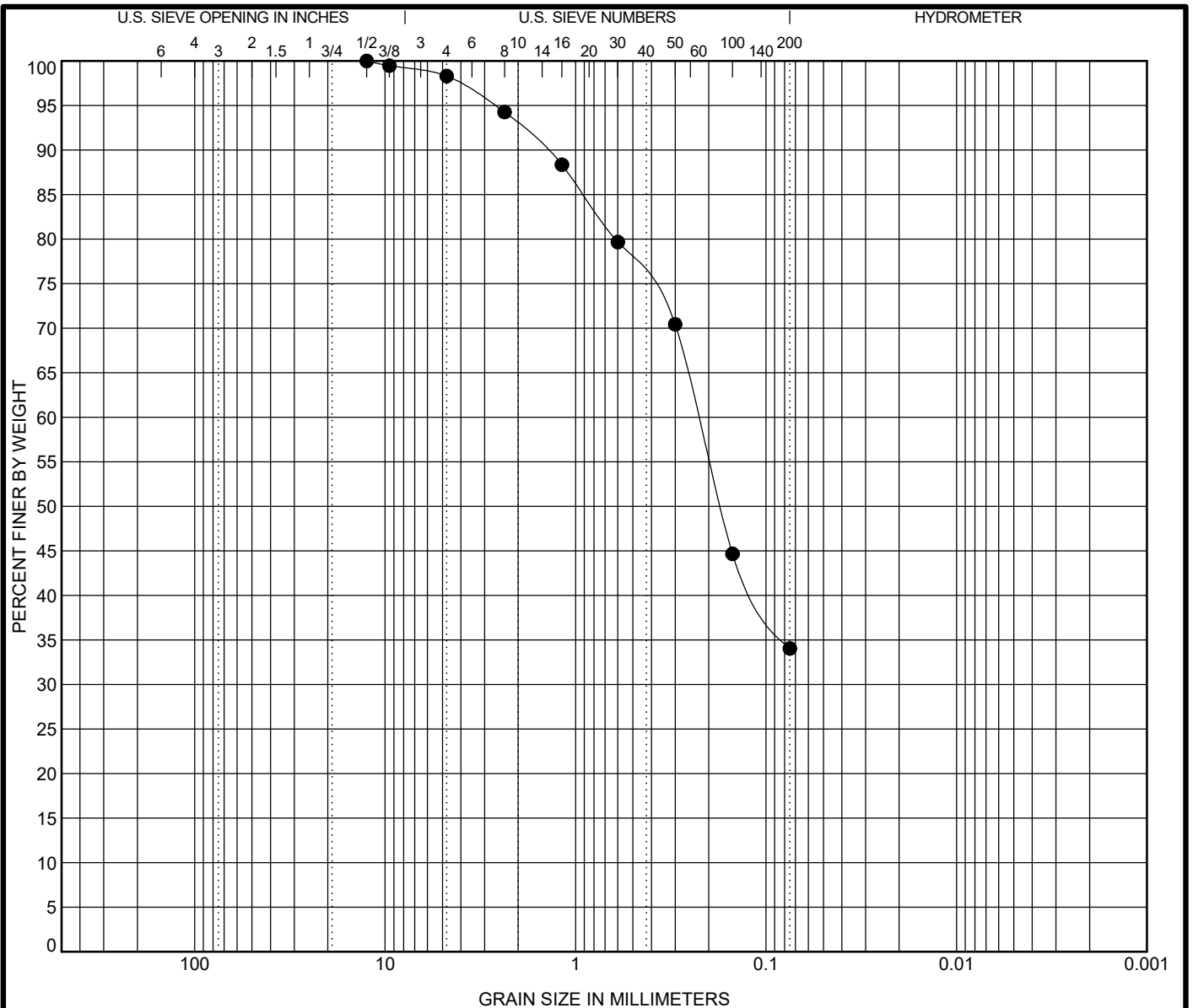
Job Number: **G7296**
 Project: **Proposed Lift Station**
 Date Started: **2/22/24**
 Date Completed: **2/22/24**

Boring No.: **B-1**
 Boring Location: **Carroll, IA**
 Drill Type: **Hollow Stem**
 Ground Elev.: **1276.1**

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	USCS	Blow Counts SPT (N) Blows/Foot	Moisture Content, %	Dry Density (PCF)	% Saturation	Hand Penetrometer (TSF)	Unconfined Comp. Strength (TSF)	Liquid Limit %	Plastic Limit %	Plasticity Index %	Cone Penetrometer (Blows/ 1-3/4")
			Shelby Tube Standard Split Spoon Water Level ATD Modified California Grab Sample Water Level After 7 Days											
0			6-Inch Root Zone											
0			LEAN CLAY WITH SAND, Dark Brown, Moist, Glacial Sediment	CL	2-2-3 N= 5	25								
5			LEAN TO FAT CLAY, Light Brownish Gray, Very Moist to Wet, Medium to Stiff, Glacial Sediment (Oxidized)	CL-CH		20	104	88	3.00	1.80	54	22	32	
5			CLAYEY SAND WITH GRAVEL, Grayish Yellow Brown, Wet, Medium Dense, Glacial Sand	SC	4-6-7 N= 13									
10			POORLY GRADED SAND WITH CLAY, Light Gray Brown, Wet, Medium Dense, Glacial Sand	SP-SC	3-5-6 N= 11									
15			CLAYEY SAND, Light Gray Brown, Wet, Medium Dense, Glacial Sand	SC	7-6-7 N= 13									
20			(Medium Gray)		4-6-8 N= 14									
25			(Gravel/Cobbles)		8-9-10 N= 19									
30					6-11-12 N= 23									
35			LEAN CLAY WITH SAND, Medium Gray, Very Moist, Very Stiff to Stiff, Weathered Glacial Till	CL	7-4-9 N= 13	24								
40			END OF BORING AT 40 FEET FREE WATER WAS ENCOUNTERED AT 5.5 FEET AT TIME OF DRILLING AND AT 5.3 FEET 7-DAYS AFTER DRILLING		5-5-5 N= 10	21								

LOG OF BORING: G7296.GPJ CERTIFIED TESTING.GDT 3/5/24

LABORATORY TEST DATA



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification				LL	PL	PI	Cc	Cu
●	B-1 30.8	CLAYEY SAND(SC)								
Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
●	B-1 30.8	12.5	0.227			1.7	64.3	34.0		



419 W. 6th Street, PO Box 1193
 Sioux City, Iowa 51102
 Telephone: 712-252-5132
 Fax: 712-252-0110

GRAIN SIZE DISTRIBUTION

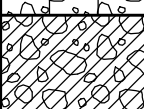
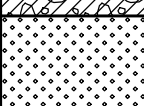
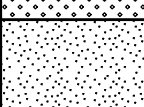
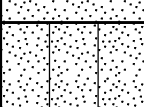
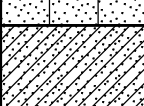
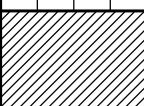
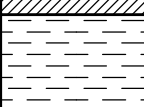
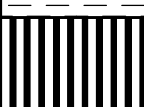
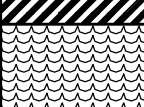
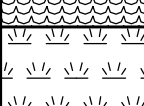
Project: Proposed Lift Station

Location: Carroll, IA

Number: G7296

SOIL CLASSIFICATION CHART AND GENERAL NOTES

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

Page 2

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

GENERAL NOTES

SAMPLING SYMBOLS:

	STANDARD PENETRATION TEST – 1 3/8" I.D., 2" O.D.
	SHELBY THIN-WALLED TUBE – 3" O.D. UNDISTURBED SAMPLE
	GRAB SAMPLE
	ROCK CORE
	AUGER SAMPLE
	NO RECOVERY

WATER LEVEL MEASUREMENT SYMBOLS:

	WATER LEVEL AT TIME OF DRILLING
	WATER LEVEL AFTER 7 DAYS

CONSISTENCY OF FINE-GRAINED SOILS	
UNCONFINED COMPRESSIVE STRENGTH, QU, PSF	CONSISTENCY
< 500	VERY SOFT
500 - 1,000	SOFT
1,001 - 2,000	MEDIUM
2,001 - 4,000	STIFF
4,001 - 8,000	VERY STIFF
8,001 - 16,000	HARD
> 16,000	VERY HARD

RELATIVE DENSITY OF COARSE GRAINED SOILS	
N-BLOWS/FT.	RELATIVE DENSITY
0 - 3	VERY LOOSE
4 - 9	LOOSE
10 - 29	MEDIUM DENSE
30 - 49	DENSE
50 - 80	VERY DENSE
80 +	EXTREMELY DENSE

RELATIVE PROPORTIONS OF SAND AND GRAVEL	
DESCRIPTIVE TERM(S) (OF COMPONENTS ALSO PRESENT IN SAMPLE)	PERCENT OF DRY WEIGHT
WITH	15 - 29
MODIFIER	> 30

RELATIVE PROPORTIONS OF FINES	
DESCRIPTIVE TERM(S) (OF COMPONENTS ALSO PRESENT IN SAMPLE)	PERCENT OF DRY WEIGHT
WITH	15 - 29
MODIFIER	> 30

GRAIN SIZE TERMINOLOGY	
MAJOR COMPONENT OF SAMPLE	SIZE RANGE
BOULDERS	OVER 12 IN. (300MM)
COBBLES	12 IN. TO 3 IN. (300 MM TO 75 MM)
GRAVEL	3 IN. TO #4 SIEVE (75MM TO 4.75MM)
SAND	#4 TO #200 SIEVE (4.75MM TO 0.075 MM)
SILT OR CLAY	PASSING #200 SIEVE (0.075MM)



PUBLIC IMPROVEMENTS

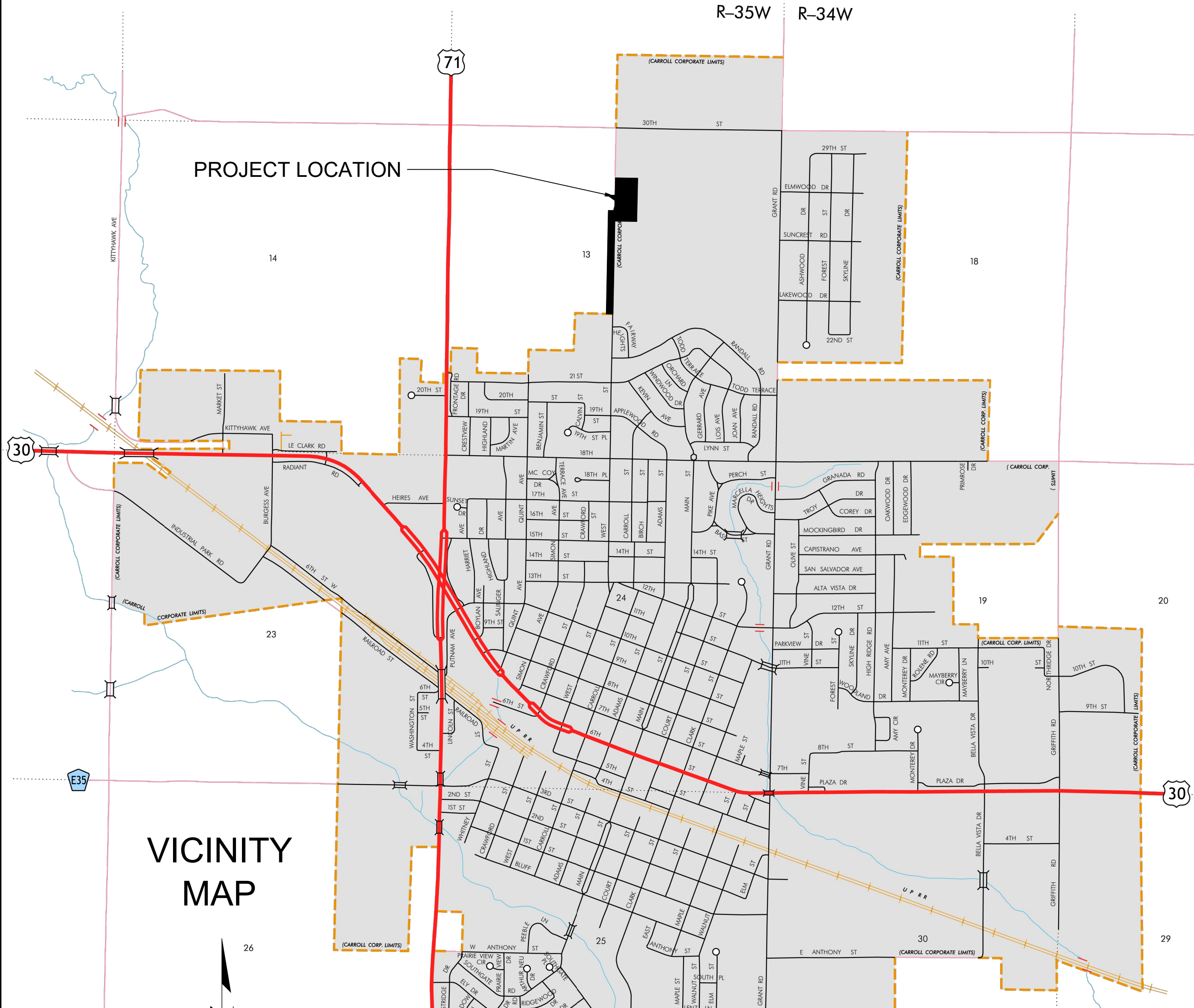
WEST GOLFVIEW SUBDIVISION

2026

CARROLL, IOWA



INDEX OF SHEETS	
NO.	TITLE
A.01	COVER SHEET
A.02	SYMBOLS SHEET
B.01	GENERAL NOTES AND TYPICAL SECTION
C.01	QUANTITIES AND REFERENCE INFORMATION
D.01	EXISTING CONDITIONS AND DEMOLITION PLAN
D.02	PROPOSED LAYOUT PLAN
G.01	REFERENCE TIES AND BENCHMARKS
M.01	STORM PLAN AND PROFILE
M.02 - M.04	SANITARY PLAN AND PROFILE
M.05 - M.06	WATER PLAN
Q.01	PHASE 1 GRADING PLAN
Q.02	PHASE 2 GRADING PLAN (BY PRIVATE DEVELOPER)
R.01	PHASE 1 - EROSION AND SEDIMENT CONTROL PLAN (SWPPP)
R.02	PHASE 2 - EROSION AND SEDIMENT CONTROL PLAN (SWPPP)
R.03	(BY PRIVATE DEVELOPER) STANDARD SWPPP DETAILS
S.01	PAVING, DRIVEWAYS, AND SIDEWALKS
U.01	LIFT STATION (BASE BID)
U.01 ALT	LIFT STATION (BID ALTERNATE #1)
U.02	LIFT STATION DETAILS
U.03	ELECTRICAL UTILITY PLAN
U.04	ELECTRICAL PLAN
U.05	ELECTRICAL DETAILS
U.06	RADIO COMMUNICATION PLAN
U.07	BID ALTERNATE ELECTRICAL DETAILS
27	TOTAL NUMBER OF SHEETS



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

(signature) *Steven L. Locke* 8/18/2026 (date)

Printed or typed name: Steven L. Locke

License Number: 26455

My license renewal date is December 31, 2026.

Pages or sheets covered by this seal:
M.02 - M.06, U.01, U.01 ALT, AND U.02

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) *Zachary D. Trede* 8/18/2026 (date)

Printed or typed name: Zachary D. Trede

License Number: P25585

My license renewal date is December 31, 2026.

Pages or sheets covered by this seal:
U.03 - U.07

CITY OF CARROLL, IOWA
REVIEWED

AARON KOOIKER
CITY MANAGER

DATE

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) *Isaac B. Kreikemeier* 8/18/2026 (date)

Printed or typed name: ISAAC B. KREIKEMEIER

License Number: 28593

My license renewal date is December 31, 2026.

Pages or sheets covered by this seal:
A.01, A.02, B.01, C.01, D.01, D.02, G.01, M.01, Q.01, Q.02, R.01, R.02, R.03, AND S.01

LINESTYLES

ITEM	SYMBOL
BREAK LINE	
CABLE TELEVISION	— UTV — UTV —
CABLE TV (NS)	— <UTV> — — <UTV> — —
CENTERLINE OF ROAD	— — — — —
CONTOUR MINOR (EX)	— — — — 1202 — — — —
CONTOUR MAJOR (EX)	— — — — 1200 — — — —
CONTOUR MINOR (EX,SCREENED)	— — — — 1202 — — — —
CONTOUR MAJOR (EX,SCREENED)	— — — — 1200 — — — —
CONTOUR MINOR (PR)	— — — — 1202 — — — —
CONTOUR MAJOR (PR)	— — — — 1200 — — — —
LIMITS OF CONSTRUCTION	— LOC — — LOC — —
CULVERT	
ELECTRIC (OVHD)	— OHE — — OHE — —
ELECTRIC (OVHD, NS)	— <OHE> — — — <OHE> — — —
ELECTRIC (UGND)	— UGE — — UGE — —
ELECTRIC (UGND, NS)	— <UGE> — — — <UGE> — — —
FENCE (WOODEN)	
FENCE (WIRE OR UNKNOWN)	— x — x — x — x —
FENCE (CHAINLINK)	— o — o — o — o —
FENCE (SECURITY)	— Δ — Δ — Δ — Δ —
FIBER OPTIC LINE	— FO — — FO — —
FIBER OPTIC LINE (NS)	— <FO> — — — <FO> — — —
FLOWLINE (BREAKLINE)	— · · · · ·
GAS LINE	— G — — G — —
GAS LINE (NS)	— <G> — — — <G> — — —
GUARDRAIL	
PROPERTY BOUNDARY	— — — — —
PROPERTY LOT LINES (PR)	— — — — —
PROPERTY LINES (EX,NS)	— — — — —
RIGHT-OF-WAY LINE	— ROW — — ROW — —
RAILROAD RIGHT-OF-WAY	— RR ROW — — — —
RAILROAD TRACKS	
RETAINING WALL	
SANITARY SEWER (EX)	— 8" SAN — — — —
SANITARY SEWER (NS)	— <SAN> — — — — <SAN> — — — —
SANITARY SEWER (PR)	— 8" SAN — — — —
SAN SEWER FORCE MAIN (EX)	— 8" FM — — — 8" FM — — —
SAN SEWER FORCE MAIN (PR)	— 6" FM — — — 6" FM — — —
STORM SEWER (EX)	
STORM SEWER (NS)	— <ST> — — — — <ST> — — — —
STORM SEWER (PR)	
TELEPHONE LINE (UGND)	— UGT — — UGT — —
TELEPHONE LINE (UGND,NS)	— <UGT> — — — — <UGT> — — — —
TELEPHONE LINE (OVHD)	— OHT — — OHT — —
TELEPHONE LINE (OVHD,NS)	— OHT — — — OHT — — —
TERRACE	
CROPLINE	— ∇ — — ∇ — —
TRAVELED WAY	— — — — —
WATER (EX)	— 6" W — — — 6" W — — —
WATER (NS)	— <W> — — — — <W> — — — —
WATER (PR)	— 6" W — — — — 6" W — — — —
FIRE SERVICE	— 6" F — — — 6" F — — —
EXISTING	EX
EXISTING, NOT-SURVEYED	NS
PROPOSED	PR
OVERHEAD	OVHD
UNDERGROUND	UGND

COMMON HATCHING

ITEM	HATCH
ASPHALT PAVEMENT (EX.)	
CONCRETE PAVEMENT (EX.)	
GRAVEL (EX.)	
BRICK PAVEMENT (EX.)	
ASPHALT PAVEMENT (PR.)	
CONCRETE PAVEMENT (PR.)	
CONCRETE SIDEWALK (PR)	
GRAVEL (PR.)	
BRICK PAVEMENT (PR.)	
RIP RAP	
SEEDING	
MATTING	
UNDISTURBED EARTH	
EARTH	
GRANULAR FILL	
SAND MORTAR, PLASTER	
CONCRETE	
BRICK	
CONCRETE BLOCK	
METAL	
WOOD FRAMING	
WOOD FRAMING INTERRUPTED MEMBER	
BATT INSULATION	
RIGID INSULATION	

UTILITIES

ITEM	SYMBOL
STORM SEWER	
CURB INLET	
GRATE INLET	
CATCH BASIN	
STORM SEWER MANHOLE	
SANITARY	
CLEANOUT	
SEPTIC TANK	
SANITARY MANHOLE	
POWER, ELECTRICAL, LIGHT, AND TRAFFIC	
AIR CONDITIONING UNIT	
ANTENNA	
ANCHOR POLE/POST	
GUY POLE	
GUY WIRE ANCHOR	
ELECTRICAL HIGHLINE TOWER (METAL OR CONCRETE)	
POWER POLE (EXISTING)	
POWER POLE (PROPOSED)	
POWER (ELEC) PEDESTAL	
POWER (ELEC) PULL BOX OR MANHOLE	
POWER (ELEC) METER	
LIGHT POLE	
TRAFFIC SIGNAL	
TRAFFIC SIGNAL BOX	
TELEVISION PEDESTAL	
TELEVISION MANHOLE	
WATER	
WATER MANHOLE	
WATER VALVE	
WATER SHUT OFF OR CURB STOP	
WELL	
WATER METER	
WATER METER PIT	
YARD HYDRANT	
WATER ELEVATION	
WATER TOWER	
FIRE HYDRANT (EXISTING)	
FIRE HYDRANT (PROPOSED)	
FIRE HYDRANT IN PROFILE	
WATER FITTINGS	
11- 1/4°	
22- 1/2°	
45°	
90°	
CROSS	
PLUG	
REDUCER	
TEE	
GAS	
GAS METER	
GAS MANHOLE	
GAS FILL PIPE	
GAS PUMP	
GAS VALVE	
GAS VENT	
TELEPHONE	
FIBER OPTICS PULL BOX	
TELEPHONE POLE	
TELEPHONE PULL BOX OR MANHOLE	
TELEPHONE PEDESTAL	
MANHOLE (NON-SPECIFIC)	
UNDERGRND STORAGE TANK	
VALVE (NON-SPECIFIC)	

SITE & SIGNAGE

ITEM	SYMBOL
SIGN	
BARRICADE	
ROAD SIGNS	
COUNTY ROAD	
INTERSTATE HIGHWAY	
STATE HIGHWAY	
U.S. HIGHWAY	
MILE MARKER POST	
RIGHT OF WAY MARKER	
RAILROAD CROSSING SIGNAL	
RAILROAD SWITCH	
FLAG POLE	
MAILBOX	
PROPANE TANK	
SATELLITE TV DISH	
WINDMILL	

CONTROL & ELEVATION

ITEM	SYMBOL
BENCHMARK	
CONTROL POINT (NON-PROPERTY)	
MONUMENT FOUND (PROPERTY)	
MONUMENT SET	
TEMPORARY POINT	
TEST BORING	
POINT ELEVATION (EXISTING)	
POINT ELEVATION (PROPOSED)	
TOP OF PAVEMENT	TP
TOP OF CURB	TC
GROUND	GR
TOP OF WALL	TW
BOTTOM OF WALL	BW
FLOWLINE	FL
GRID TICK	+

MISC FEATURES

ITEM	SYMBOL
CENTER PIVOT	
CEMETERY	
GRAVE	
CHURCH	
CAVE	
CISTERN	
LATRINE	
OIL WELL	
GUARD POST	

PAVING FEATURES

ITEM	SYMBOL
EXISTING PAVEMENT JOINT	
TRANSVERSE JOINT	
LONGITUDINAL JOINT	
EXPANSION/KEYED JOINT	
PAVEMENT MARKING	
PAVEMENT REBAR	
HANDICAP SYMBOL	

VEGETATION

ITEM	SYMBOL
BUSH	
CONIFEROUS TREE	
DECIDUOUS TREE	
MARSH/WETLAND	
TREE MASS LINE	
TREE STUMP	

SWPPP

ITEM	SYMBOL
SILT FENCE	
INLET PROTECTION	
STRAW WATTLE CHECK	
STRAW BALE CHECK	
FLOW ARROW (PLAN)	
AREA INLET FILTER PROTECTION	

GENERAL

ITEM	SYMBOL
PLAN REVISION	
NORTH ARROW	
GRAPHIC SCALE PLAN	
GRAPHIC SCALE PROFILE/ CROSS SECTION	
KEYNOTE OR TABULAR NOTE	
REFERENCED NOTE	
ELEVATION	
SECTION	
ENLARGED DETAIL	

GENERAL:

- ALL CONSTRUCTION IS SUBJECT TO OBSERVATION BY ENGINEER AND/OR OWNER. CONTRACTOR SHALL NOTIFY ENGINEER, OWNER, AND UTILITY COMPANIES 1 WEEK PRIOR TO START OF CONSTRUCTION.
- ALL CONSTRUCTION METHODS, PROCEDURES AND MATERIALS PROPOSED TO BE USED FOR THIS PROJECT SHALL COMPLY WITH THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS 2026 EDITION) AND CARROLL SUPPLEMENTAL SPECIFICATIONS. ANY ALTERNATE PROPOSED TO BE USED BY CONTRACTOR SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS FROM THE CITY OF CARROLL, AS APPLICABLE, PRIOR TO ANY CONSTRUCTION WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- IF ARCHAEOLOGICAL REMAINS ARE UNCOVERED ON THE PROJECT, CONTRACTOR WILL NOTIFY ENGINEER IMMEDIATELY.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
- OBSERVATION AND TESTING BY A QUALIFIED TESTING LAB OR PROFESSIONAL GEOTECHNICAL ENGINEER HIRED BY THE OWNER SHALL OCCUR IN ALL FILL AREAS. DENSITY TEST REPORTS SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER, ENGINEER OF RECORD, AND OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH A CERTIFIED TESTING AGENCY FOR OBSERVATION AND TESTING THROUGHOUT CONSTRUCTION.
- CONTRACTOR WILL BE HELD RESPONSIBLE FOR SETTLEMENT DUE TO IMPROPER COMPACTION.
- COMPACTION TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER. COMPACTION TESTING SHALL BE PERFORMED ON SUBGRADE PREPARATION OF IN PLACE EARTH FILL. PERFORM COMPACTION TESTING PER SECTION 2010, 3.09. COORDINATE TESTING RESULTS WITH ENGINEER. SUBGRADE THAT DOES NOT MEET THE REQUIREMENTS FOR MOISTURE CONTENT AND/OR DENSITY WILL BE REQUIRED TO BE RETESTED, AT NO ADDITIONAL CHARGE TO THE OWNER, UNTIL THE REQUIRED LEVEL OF COMPACTION IS ACHIEVED.
- TRENCH COMPACTION TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER. INCLUDES TESTING FOR SANITARY SEWER AND STORM SEWER CONSTRUCTION. PERFORM TRENCH COMPACTION TESTING PER SECTION 2010, 3.06 AND GEOTECHNICAL REPORT. COORDINATE TESTING WITH ENGINEER.

CLEARING, GRUBBING, GRADING & EMBANKMENT:

- ALL LIGHT POLES, UTILITIES, MAILBOXES, AND TREES SHALL BE PROTECTED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND DISCUSS ANY ITEMS THAT MAY NEED TO BE PRESERVED AND PROTECTED FROM CLEARING AND GRUBBING. SUCH PRESERVATION SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.
- REMOVE, SALVAGE, AND REINSTALL FENCES AND SIGNS NECESSARY FOR CONSTRUCTION AS DIRECTED BY ENGINEER. CITY OF CARROLL PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED FOR ANY SIGN REMOVAL WITHIN THE STREET RIGHT-OF-WAY 48 HOURS PRIOR TO REMOVAL. THE CONTRACTOR SHALL PROVIDE TEMPORARY SIGNAGE AS NEEDED. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS OTHERWISE NOTED IN THE PLANS. DAMAGED SIGNS SHALL BE REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- ALL HOLES RESULTING FROM OPERATIONS OF CONTRACTOR, INCLUDING REMOVAL OF GUARDRAIL POSTS, FENCE POSTS, UTILITY POLES, SOIL BORINGS, ETC. SHALL BE FILLED AND COMPACTED TO FINISHED GRADE AS DIRECTED BY ENGINEER TO PREVENT FUTURE SETTLEMENT. VOIDS SHALL BE FILLED AS SOON AS PRACTICAL, PREFERABLY THE DAY CREATED BUT NO LATER THAN THE FOLLOWING DAY. ANY PORTION OF THE RIGHT-OF-WAY OR PROJECT LIMITS (INCLUDING BORROW AREAS AND OPERATION SITES) DISTURBED BY ANY CONSTRUCTION WORK SHALL BE RESTORED TO AN ACCEPTABLE CONDITION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS IN THE PROJECT. ANY HOLES OR TRENCHES THAT ARE OPEN AT THE END OF THE DAY'S WORK MUST BE FENCED WITH SAFETY FENCE (INCIDENTAL).
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL, BROKEN CONCRETE, VEGETATION OR PAVEMENTS) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. NO PAYMENT FOR OVERHAUL OR DUMPING FEES WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. NO MATERIAL WILL BE PLACED WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY STATED IN THE PLANS OR APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE REMOVED FROM ANY PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
- CONTRACTOR SHALL CONFINE THEIR GRADING OPERATIONS TO THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS UNLESS AUTHORIZED BY THE ENGINEER TO DO OTHERWISE. CONTRACTOR SHALL COMPENSATE PROPERTY OWNER FOR DAMAGES WHICH THEY CAUSE OUTSIDE AUTHORIZED LIMITS. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PRESERVE AND PROTECT ANY FENCES AND TREES, WITHIN THE CONSTRUCTION LIMITS, WHICH MAY BE REQUIRED TO REMAIN BY THE OWNER. CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS.
- IF CONTRACTOR FAILS TO CONTROL EROSION, POLLUTION AND/OR SILTATION, OWNER RESERVES THE RIGHT TO EMPLOY OUTSIDE ASSISTANCE TO PROVIDE THE NECESSARY CORRECTIVE MEASURES. SUCH INCURRED COSTS PLUS PROJECT ENGINEERING COSTS WILL BE CHARGED TO THE CONTRACTOR, AND APPROPRIATE DEDUCTIONS WILL BE MADE FROM THE CONTRACTOR'S MONTHLY PROGRESS ESTIMATE. THIS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

OWNER:

NAME: CITY OF CARROLL IOWA
CONTACT INFO: AARON KOOIKER
EMAIL: AKOOIKER@CITYOFCARROLL.COM

ENGINEER:

SUBMITTING ORGANIZATION

JEO CONSULTING GROUP, INC.
724 SIMON AVE, CARROLL, IA 51401
P: 712.792.9711
CERTIFICATE OF AUTHORIZATION NO.: CA-0069

UTILITIES - GENERAL:

- LOCATIONS OF BURIED UNDERGROUND FACILITIES ARE APPROXIMATE. ENGINEER DOES NOT WARRANT, EITHER EXPRESSLY OR BY IMPLICATION, THE ACCURACY OF THE LOCATIONS SHOWN. EXACT LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE DETERMINED BY CONTRACTOR AT THE TIME OF CONSTRUCTION. IT SHALL BE THE DUTY OF CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE DRAWINGS MAY BE PRESENT. ENGINEER MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL UTILITIES IN THE AREA.
- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OF THE ACTUAL STARTING DATE OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH EACH COMPANY THE ACTUAL UTILITY LOCATION IN THE FIELD AND WHICH UTILITY LINES MUST BE ADJUSTED. CONTRACTOR SHALL USE CAUTION IN WORKING NEAR ALL UTILITY LINES. UTILITIES DAMAGED DUE TO THE OPERATIONS OF THE CONTRACTOR SHALL BE REPLACED AT CONTRACTOR'S EXPENSE AND AT NO EXPENSE TO THE OWNER.
- CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- NEITHER THE OWNER (CITY OF CARROLL) NOR JEO CONSULTING GROUP, INC. (ENGINEER) ASSUMES ANY RESPONSIBILITY FOR UTILITY LOCATIONS BEING ACCURATELY SHOWN OR NOT SHOWN ON THE PLANS. A REQUEST FOR UTILITY LOCATES WAS MADE FOR THIS PROJECT PURSUANT TO THE ONE-CALL NOTIFICATION SYSTEM ACT.
- UTILITIES SHOWN ARE FROM FIELD MARKINGS PROVIDED IN THE FIELD BY THE UTILITY PROVIDERS.
- THE EXACT LOCATION AND/OR SIZE OF UNDERGROUND FEATURES MAY NOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. FIELD VERIFICATION OF UTILITIES MAY BE REQUIRED. CONTRACTOR(S) SHALL NOTIFY THE RESPECTIVE UTILITY COMPANIES BEFORE COMMENCING ANY WORK.

TRENCH, BACKFILL & TUNNELING:

- CONTRACTOR SHALL SUBMIT GRADATION REPORTS FOR FILL AND BEDDING MATERIALS PRIOR TO USE IN THE PROJECT.
- CONTRACTOR SHALL LIMIT THE LENGTH OF OPEN TRENCH AT ANY GIVEN TIME. NO MORE THAN APPROXIMATELY 300 FEET OF OPEN TRENCH WILL BE ALLOWED PRIOR TO BACKFILLING. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM CITY FOR VARIANCES FROM THIS OPEN TRENCH REQUIREMENT.

STORM SEWERS & DRAINS:

- STORM SEWER GRAVITY LINES SHALL BE REINFORCED CONCRETE PIPE UNLESS OTHERWISE INDICATED IN ESTIMATE OF QUANTITIES.
- IF ABANDONED STORM SEWER SERVICE LINES CANNOT BE REMOVED THEN THEY SHALL BE PLUGGED/FILLED WITH FLOWABLE FILL OR CONTROLLED LOW STRENGTH MATERIAL. THIS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OF PROJECT UNLESS OTHERWISE INDICATED IN THE ESTIMATE OF QUANTITIES.
- TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PAVING. POSITIVE DRAINAGE TO THE INTAKES MUST BE MAINTAINED AND IS THE INTENT OF THE DRAWINGS.
- REMOVE AND REPLACE EXISTING DRAIN TILES AS NECESSARY FOR CONSTRUCTION WITH NEW PIPE OF THE SAME SIZE AND MATERIAL. CONTRACTOR IS TO USE DUE CAUTION IN WORKING OVER AND AROUND ALL TILE LINES. BREAKS IN A TILE LINE DUE TO CONTRACTOR'S OPERATIONS ARE TO BE REPAIRED AND/OR REPLACED AT CONTRACTOR'S EXPENSE WITHOUT COST TO THE OWNER OR THE ENGINEER.
- CONNECTIONS OF PIPES (BOTH SIMILAR AND DIFFERING MATERIALS) SHALL BE MADE USING MANUFACTURED CONNECTIONS (I.E. HYMAX OR OWNER APPROVED EQUIVALENT). CONNECTIONS BETWEEN EXISTING AND NEW PIPES SHALL BE IN ACCORDANCE WITH SUDAS FIGURE 4020.211, TYPE PC-2.

WATER MAIN:

- ALL WATER MAINS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE 2026 IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) AS AMENDED BY THE CITY OF CARROLL SUPPLEMENTAL SPECIFICATIONS. WATER MAIN CLEARANCES SHALL FOLLOW SUDAS SPECIFICATION SECTION 5010, PARAGRAPH 3.06 "CONFLICTS".

STREETS & RELATED WORK:

- UNLESS OTHERWISE INDICATED IN ESTIMATE OF QUANTITIES AND ESTIMATE REFERENCE INFORMATION, ALL MAINLINE STREET PAVING CONCRETE SHALL BE C-4 MIX.
- CONTRACTOR SHALL CONTROL ALL FUGITIVE DUST DURING THE CONCRETE JOINT SAWING PROCESS. CONTRACTOR SHALL ENSURE THAT ALL CORNERS OF FIXTURES, INTAKES, ETC. ARE CONTROLLED WITH AN APPROPRIATE JOINT.
- ESTIMATED QUANTITY FOR NEW CONCRETE PAVEMENT INCLUDES ALL STREET RETURNS AND SPECIAL AREAS OF REPAIRS TO CONNECTING PAVEMENTS.
- CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO ANY PAVING WORK IF POSITIVE DRAINAGE IS IN QUESTION. THE INTENT OF THE DRAWINGS IS TO ENSURE POSITIVE DRAINAGE IN ALL SITUATIONS. IF POSITIVE DRAINAGE DOES NOT OCCUR AT SPECIFIC LOCATIONS, CONTRACTOR SHALL REPAIR, INCLUDING THE REMOVAL AND REPLACEMENT OF PAVEMENT, TO ACHIEVE POSITIVE DRAINAGE. CONTRACTOR WILL BE REQUIRED TO PAY ALL COSTS ASSOCIATED WITH THE NEEDED REPAIR.
- REMOVE THE EXISTING PAVEMENT TO THE NEAREST EXISTING JOINT OR AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL DOUBLE SAW CUT ALL EDGES AT NO ADDITIONAL COST TO THE OWNER.
- EXERCISE CARE WHEN PERFORMING ANY SAWCUTTING OR PAVEMENT REMOVAL. PROTECT THE ADJACENT STREET FROM DAMAGE. REMOVE AND REPLACE ANY DAMAGED AREAS WHICH ARE NOT INDICATED FOR REMOVAL AT NO COST TO THE OWNER.

SIDEWALKS, DRIVEWAYS, & RELATED WORK:

- GRADING TO MEET DEVIATIONS IN DRIVEWAYS AND SUBGRADE PREPARATION FOR CONCRETE SIDEWALKS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- WHERE REMOVAL OR REPLACEMENT OF DRIVEWAYS IS REQUIRED, CONTRACTOR SHALL REMOVE AND REPLACE TO THE NEAREST EXISTING JOINT. FULL-DEPTH SAW-CUT ALL EXISTING PAVEMENTS AT REMOVAL BOUNDARY. CONTRACTOR WILL REMOVE AND REPLACE THE MINIMUM AMOUNT OF SIDEWALK NECESSARY TO MEET OR SURPASS THE REQUIREMENTS SET FORTH IN THE SPECIFICATIONS. CONSTRUCTION DRAWINGS, OR CITY OF CARROLL DESIGN STANDARDS, WHICHEVER IS MOST RESTRICTIVE.
- SIDEWALKS AND SIDEWALK RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY, (PROWAG). THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) HAS ISSUED GUIDANCE THAT THE CURRENT DRAFT VERSION OF THE PROWAG CAN BE CONSIDERED STATE OF THE PRACTICE. STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) STANDARDS ARE BASED UPON THE PROWAG REQUIREMENTS.

SANITARY SEWER NOTES:

- THE CONTRACTOR SHALL PERFORM ALL CLEANING, INSPECTION, AND TESTING IN ACCORDANCE WITH SUDAS SPECIFICATIONS, AS AMENDED BY THE CITY OF CARROLL SUPPLEMENTAL SPECIFICATIONS.
- THE CONTRACTOR SHALL USE CAUTION IN PLACING THE BACKFILL AROUND AND ABOVE THE PIPE TO PREVENT DISTURBANCE OF THE JOINTS AND/OR PIPE ALIGNMENT. NO ROCK OR STONE LARGER THAN 6" SHALL BE PLACED WITHIN 3 FEET OF THE TOP OF THE PIPE. A MINIMUM 4 FEET OF COMPACTED COVER ABOVE THE TOP OF THE PIPE SHALL BE PROVIDED BEFORE THE USE OF WHEEL MOUNTED MECHANICAL TAMPERS (FREE DROP HAMMERS), HYDRAULIC RAM TAMPERS OR OTHER HEAVY TAMPING EQUIPMENT WILL BE PERMITTED.

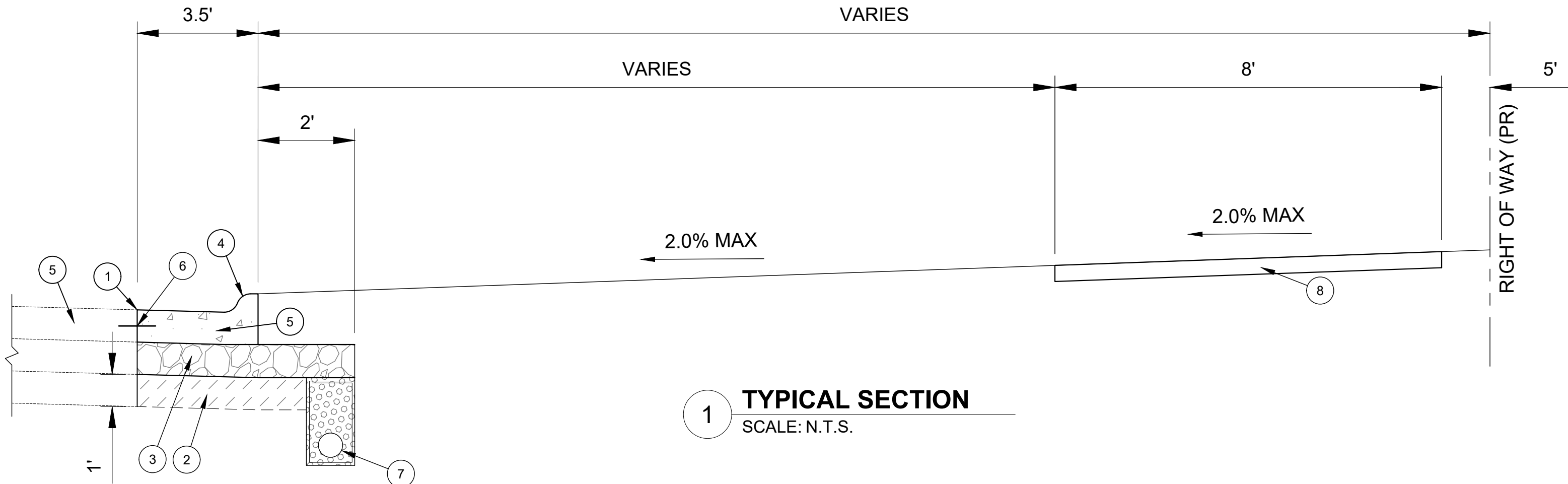
SUDAS STANDARD SPECIFICATIONS 2026 EDITION			
THE FOLLOWING FIGURES SHALL BE CONSIDERED APPLICABLE TO CONSTRUCTION WORK ON THIS PROJECT			
NUMBER	DATE	NUMBER	DATE
3010.101	4/17/2018	7010.101	01/01/2026
3010.102	4/20/2021	7010.102	4/21/2020
3010.103	4/20/2021	7010.103	4/19/2022
3010.104	4/20/2021	7010.121	4/21/2015
4010.201	4/21/2020	7010.901	2022 EDITION
4020.211	4/17/2018	7010.902	10/15/2013
4030.221	10/21/2014	7010.904	10/19/2010
4030.222	10/18/2016	7030.101	2022 EDITION
4040.231	10/21/2014	7030.102	2023 EDITION
4040.232	2020 EDITION	7030.104	10/21/2014
4040.233	2025 EDITION	7030.201	2022 EDITION
5010.101	01/01/2026	7030.202	2022 EDITION
5010.102	10/18/2016	7030.205	10/20/2015
5010.901	10/21/2014	9040.103	2025 EDITION
5020.201	4/19/2022	9040.105	2025 EDITION
6010.301	10/18/2022	9040.119	2025 EDITION
6010.401	4/20/2021	9040.120	2025 EDITION
6010.501	4/21/2020		
6010.502	4/21/2020		
6010.512	4/21/2020		
6010.601	4/21/2020		
6010.602	4/21/2020		
6010.603	10/16/2018		
6010.604	4/21/2020		

TEMPORARY TRAFFIC CONTROL:

- ALL TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION.
- IT SHALL BE CONTRACTOR'S RESPONSIBILITY FOR PROPER BARRICADING AND ADEQUATE PROTECTION OF ALL OPEN TRENCHES AND OTHER EXCAVATIONS. OBSTRUCTIONS, SUCH AS MATERIAL PILES AND EQUIPMENT, SHALL BE PROVIDED WITH WARNING SIGNS, BARRICADES AND LIGHTS. ALL BARRICADES AND OBSTRUCTIONS SHALL BE ILLUMINATED BY MEANS OF WARNING LIGHTS FROM SUNSET TO SUNRISE OR WHEN ANY OTHER LOW LIGHT CONDITIONS EXIST. MATERIAL STORED UPON OR ALONGSIDE PUBLIC STREETS SHALL BE SO PLACED AND THE WORK SHALL AT ALL TIMES BE SO CONSTRUCTED AS TO CAUSE THE MINIMUM OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC AND TO LOCAL RESIDENTS.
- CONTRACTOR SHALL MAINTAIN AT LEAST ONE (1) ACCESS TO ALL BUSINESSES, INDUSTRIES AND RESIDENCES DURING NORMAL WORKING HOURS BY STAGING WORK ACCORDINGLY. COORDINATE CONSTRUCTION AT PRIVATE PROPERTY WITH THE OWNER AND THE ENGINEER.

WORK HOURS:

- THE CONTRACTOR SHALL LIMIT THE EXECUTION OF WORK ON THIS PROJECT TO THE HOURS BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH FRIDAY. WORK OUTSIDE THESE HOURS IS NOT ALLOWED UNLESS COORDINATED BY THE CONTRACTOR AND APPROVED BY THE OWNER.



- LEGEND
- 1 PROFILE GRADE LINE
 - 2 12" SUBGRADE PREPARATION
 - 3 SUBBASE, MODIFIED, 6 IN.
 - 4 6" INTEGRAL CURB
 - 5 7" CONCRETE PAVEMENT (C-4 MIX)
 - 6 L-1 JOINT
 - 7 6" SUBDRAIN TYPE-1 CASE "B" (SUDAS 4040.231)
 - 8 6" SIDEWALK

ESTIMATE OF QUANTITIES				
GROUP A - BASE BID				
ITEM #	REFERENCE #	DESCRIPTION	UNIT	QUANTITY
1	2010-C	CLEARING AND GRUBBING	LS	1
2	2010-E	EXCAVATION, CLASS 10	CY	4,346
3	2010-G	SUBGRADE PREPARATION	SY	510
4	2010-J	SUBBASE, MODIFIED, 6 IN.	SY	640
5	2010-K-1	REMOVAL OF STRUCTURE, AREA INLET	EA	1
6	3010-D	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	CY	200
7	4010-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC (SDR 26), 8"	LF	1151
8	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	1306
9	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	35
10	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	324
11	4010-D-2	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	25
12	4010-E	SANITARY SEWER SERVICE STUB, PVC (SDR 26), 4"	LF	180
13	4020-A-1	STORM SEWER, TRENCHED, HDPE, 8"	LF	36
14	4020-A-1	STORM SEWER, TRENCHED, RCP, 18"	LF	247
15	4020-D	REMOVAL OF STORM SEWER, 8"	LF	255
16	4030-B	PIPE APRON, RCP (TYPE 1), 18"	EA	1
17	4040-A	SUBDRAIN, B-1, 6"	LF	1140
18	4040-C-1	SUBDRAIN CLEANOUT, B-1, 6"	EA	2
19	4040-D-1	SUBDRAIN CONNECTION, 6"	EA	4
21	5010-E-1	WATER SERVICE PIPE, POLYETHYLENE, 1"	LF	305
22	5010-E-2	WATER SERVICE CORPORATION, BALL STYLE, 1"	EA	1
23	5010-E-3	WATER SERVICE CURB STOP AND BOX, MINNEAPOLIS PATTERN, 1"	EA	1
24	5020-B	TAPPING VALVE ASSEMBLY, 8"x6"	EA	1
25	5020-C	FIRE HYDRANT ASSEMBLY	EA	1
26	5020-G	VALVE BOX EXTENSION	EA	1
27	5020-I	FIRE HYDRANT ADJUSTMENT	EA	1
28	6010-A	MANHOLE, SW-301, 48" DIA.	EA	3
29	6010-A	MANHOLE, SW-401, 48" DIA.	EA	1
30	6010-B	INTAKE, SW-501, 24"	EA	1
31	6010-B	INTAKE, SW-502, 60"	EA	1
32	6010-B	INTAKE, SW-512, 18"	EA	1
33	6010-E-1	MANHOLE ADJUSTMENT, MAJOR	EA	1
34	6010-G-1	CONNECT TO EXISTING MANHOLE	EA	1
35	7010-E	CURB AND GUTTER, 3.5' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	1074
36	7010-E	CURB AND GUTTER, 8.75' WIDE, 7" THICK PCC (6" INTEGRAL CURB)	LF	66
37	7030-A-3	REMOVAL OF DRIVEWAY	SY	127
38	7030-E	SIDEWALK, PCC, 6 IN.	SF	9942
39	7030-H-3	DRIVEWAY, GRANULAR, 4"	TON	35
40	7040-H	PAVEMENT REMOVAL	SY	1168
41	8030-A	TEMPORARY TRAFFIC CONTROL	LS	1
42	8040-I	REMOVE AND REINSTALL TRAFFIC SIGNS	EA	4
43	9010-A	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, AND MULCHING, TYPE 1	AC	3.5
44	9040-A-2	SWPPP MANAGEMENT	LS	1
45	9040-F-1	STRAW WATTLE	LF	2830
46	9040-F-2	STRAW WATTLE, REMOVAL	LF	2830
47	9040-N-1	SILT FENCE	LF	198
48	9040-N-3	SILT FENCE, REMOVAL OF DEVICE	LF	198
49	9040-R	TURF REINFORCEMENT MATS, FLEXAMAT	SY	27
50	9040-T-1	INLET PROTECTION DEVICE, CURB INLET	EA	2
51	9040-T-1	INLET PROTECTION DEVICE, AREA INLET	EA	1
52	11020-A	MOBILIZATION	LS	1
53	11050-A	CONCRETE WASHOUT	LS	1
54	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	1
55	SPECIAL	DEWATERING (BASE BID)	LS	1
56	SPECIAL	CONNECT TO EXISTING STORM DRAIN PIPING	LS	1
57	SPECIAL	CONNECT TO EXISTING STORM SEWER	EA	1
58	SPECIAL	WATER MAIN CROSSING	LS	1

GROUP A - BID ALTERNATE #1				
ITEM #	REFERENCE #	DESCRIPTION	UNIT	QUANTITY
8	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, PVC (DR 14), 4"	LF	-1306
9	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), PVC (DR 14), 4"	LF	-35
10	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), PVC (DR 14), 4"	LF	-324
11	4010-D-2	SANITARY SEWER FORCE MAIN WITH CASING PIPE, TRENCHLESS (DRY BORE), PVC (DR 14), 4", RJ	LF	-25
54	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BASE BID)	LS	-1
55	SPECIAL	DEWATERING (BASE BID)	LS	-1
59	4010-C-1	SANITARY SEWER FORCE MAIN, TRENCHED, HDPE (SIDR 7), 2"	LF	1306
60	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DRY BORE), HDPE (SIDR 7), 2"	LF	60
61	4010-C-2	SANITARY SEWER FORCE MAIN, TRENCHLESS (DIRECTIONAL BORE), HDPE (SIDR 7), 2"	LF	324
62	SPECIAL	LIFT STATION, COMPLETE WITH SITE ELECTRICAL & CONTROLS (BID ALTERNATE #1)	LS	1
63	SPECIAL	DEWATERING (BID ALTERNATE #1)	LS	1
GROUP A - BID ALTERNATE #2				
ITEM #	REFERENCE #	DESCRIPTION	UNIT	QUANTITY
20	5010-D	WATER SERVICE STUB, POLYETHYLENE, 1"	EA	9

ESTIMATE REFERENCE INFORMATION		
ITEM #	REFERENCE #	DESCRIPTION AND PRODUCT DETAILS
1	2010-C	TREE REMOVALS SHALL BE MARKED BY ENGINEER BEFORE COMMENCEMENT. UNIT PRICE SHALL ALSO INCLUDE STRIPPING, SALVAGING, AND SPREADING 8 INCHES OF TOPSOIL. FILL BROUGHT IN FROM OFF-SITE SHALL MEET THE RECOMMENDED PROPERTIES IN THE SPECIFICATIONS AND SHALL BE APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO USE. ESTIMATED QUANTITY SHOWN ON THE DRAWINGS INCLUDES THE VOLUME DIFFERENCE BETWEEN THE EXISTING GRADE SURFACE AND THE FINISHED GRADE SURFACE. EMBANKMENT QUANTITIES INCLUDE AN ASSUMED 30% SHRINK FACTOR, AND PAVEMENT HAS BEEN EXCLUDED. THE BID QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR COMPARISON OF BIDS. PAYMENT TO CONTRACTOR SHALL BE MADE WITHOUT FINAL FIELD MEASUREMENT OF QUANTITIES, REGARDLESS OF ACTUAL QUANTITIES OF WORK PERFORMED AND ACCEPTED, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2	2010-E	COMPACTION TESTING BY OWNER'S GEOTECHNICAL ENGINEER IS REQUIRED FOR THIS BID ITEM. PROOF ROLLING OF SUBGRADE IS INCIDENTAL TO THIS ITEM. SUBGRADE SHALL NOT SET LONGER THAN 14 DAYS OR AFTER RAINFALL EVENT WITHOUT RE-PROOFING OR RETESTING. CONTRACTOR SHALL NOTIFY ENGINEER 24 HOURS PRIOR TO PROOF ROLLING SUBGRADE. PROTECT UTILITIES DURING SUBGRADE PREPARATIONS TO PREVENT DAMAGE TO UTILITIES. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGE TO UTILITIES AT NO COST TO THE OWNER. SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY A STANDARD LABORATORY COMPACTION TEST (ASTM D698).
4	2010-J	-
5	2010-K-1	-
6	3010-D	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL SHALL NOT INCLUDE VERY MOIST TO WET MATERIALS THAT WOULD BE MORE ECONOMICAL TO REMOVE AND REPLACE THAN TO DRY, THAT WOULD OTHERWISE BE SUITABLE AS BACKFILL MATERIAL. REPLACEMENT OF WET SOILS SHALL BE CONSIDERED INCIDENTAL AND SHALL BE REPLACED AT CONTRACTOR'S DISCRETION. WET SOILS AND UNSUITABLE SOILS SHALL BE REPLACED WITH SOILS SUITABLE FOR BACKFILL AS DETERMINED BY THE OWNER'S GEOTECHNICAL ENGINEER. QUANTITY IS AN ESTIMATE ONLY AND MAY VARY SIGNIFICANTLY FROM PROVIDED BID QUANTITY.
7	4010-A-1	UNIT PRICE SHALL INCLUDE 8 INCHES OF ON-SITE TOPSOIL STRIPPING, SALVAGING, AND RE-SPREADING PER SUDAS SECTION 2010.
8	4010-C-1	THIS BID ITEM WILL BE REMOVED FROM THE PROJECT IF BID ALTERNATE #1 IS SELECTED BY OWNER. THE PRICE/AMOUNT OF THIS BID ITEM SHALL BE LISTED THE SAME IN THE BID FORM FOR THE BASE BID (POSITIVE QUANTITY) AS IT IS IN THE BID ALTERNATE (NEGATIVE QUANTITY).
9, 10	4010-C-2	BORE PITS ARE INCIDENTAL. THESE BID ITEMS WILL BE REMOVED FROM THE PROJECT IF BID ALTERNATE #1 IS SELECTED BY OWNER. THE PRICE/AMOUNT OF THIS BID ITEM SHALL BE LISTED THE SAME IN THE BID FORM FOR THE BASE BID (POSITIVE QUANTITY) AS IT IS IN THE BID ALTERNATE (NEGATIVE QUANTITY).
11	4010-D-2	BORE PITS ARE INCIDENTAL. CASING PIPE SHALL BE 10" STEEL (0.188-IN THICK). THIS BID ITEM WILL BE REMOVED FROM THE PROJECT IF BID ALTERNATE #1 IS SELECTED BY OWNER. THE PRICE/AMOUNT OF THIS BID ITEM SHALL BE LISTED THE SAME IN THE BID FORM FOR THE BASE BID (POSITIVE QUANTITY) AS IT IS IN THE BID ALTERNATE (NEGATIVE QUANTITY).
12	4010-E	-
13, 14	4020-A-1	-
15	4020-D	-
16	4030-B	ANCHOR THE LAST THREE CONCRETE PIPE SECTIONS AND APRON TOGETHER WITH TWO PIPE CONNECTIONS PER JOINT.
17	4040-A	ENGINEERING FABRIC SHALL BE INCLUDED, MIRAFI FW 404.
18	4040-C-1	-
19	4040-D-1	REFER TO SUDAS FIGURE 4040.233. CORE DRILLING SHALL BE INCIDENTAL TO THIS ITEM. ALL BENDS NECESSARY TO MAKE CONNECTIONS BETWEEN THE SUBDRAIN AND STORM SEWER INTAKE STRUCTURE ARE INCIDENTAL. RODENT GUARDS WILL NOT BE REQUIRED.
20	5010-D	ALL WATER SERVICE CONNECTIONS SHALL BE MADE BY A STATE LICENSED PLUMBER. WATER SERVICES SHALL EXTEND 3' PAST THE CURB STOP AND THEN BE CAPPED, WHICH SHALL BE CONSIDERED INCIDENTAL TO THIS BID ITEM. ALL WORK ASSOCIATED WITH THIS BID ITEM WILL BE INCLUDED AS PART OF BID ALTERNATE #2.

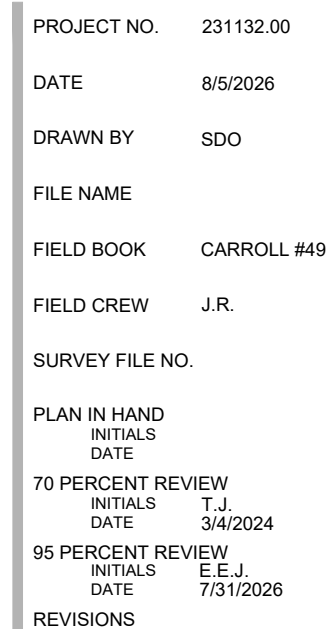
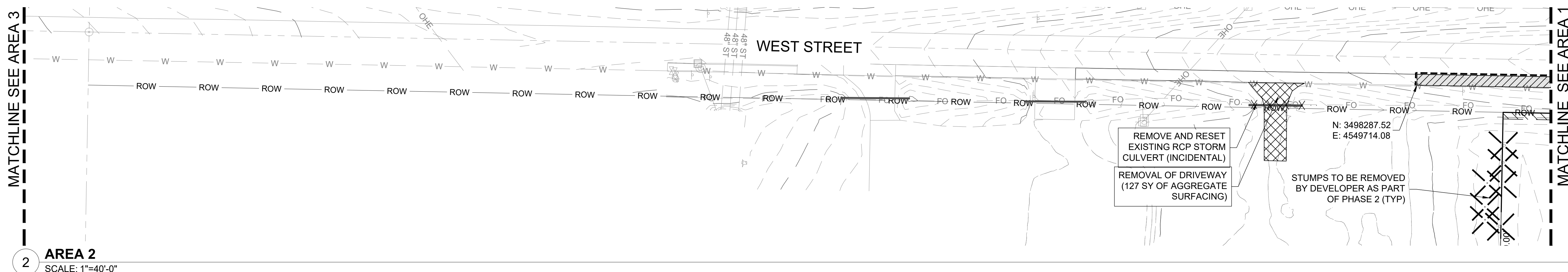
21, 22, 23	5010-E-1 5010-E-2 5010-E-3	FITTINGS AND CONNECTION TO EXISTING 1" WATER SERVICE ARE INCIDENTAL.
24	5020-B	-
25	5020-C	MEGA-LUGS AND THRUST BLOCKS ARE REQUIRED FOR ALL FITTINGS. FIRE HYDRANT GATE VALVE SHALL BE EXCLUDED DUE TO PROXIMITY OF TAPPING VALVE ASSEMBLY.
26	5020-G	-
27	5020-I	-
28, 29	6010-A	SEE SPECIAL PROVISIONS.
30, 31, 32	6010-B	-
33	6010-E-1	-
34	6010-G-1	WATERSTOP GROUTING RING AND GROUT SHALL BE REQUIRED AT CONNECTION TO MANHOLE. COMPLETE INSIDE DROP SYSTEM WITHIN EXISTING MANHOLE SHALL BE INCLUDED IN THIS BID ITEM.
35, 36	7010-E	CONCRETE SHALL BE A C-4 MIX AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. LONGITUDINAL JOINTS SHALL BE A L-1 JOINT AND TRANSVERSE JOINTS SHALL BE A C JOINT. CONTRACTOR TO TAKE CARE WHEN TYING INTO EXISTING PAVEMENT, ANY DAMAGE MADE TO THE EXISTING PAVEMENT SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
37	7030-A-3	CONTRACTOR TO TAKE CARE TO PRESERVE THE PAVEMENT NOT MARKED AS REMOVAL, ANY DAMAGE MADE TO THIS PAVEMENT SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
38	7030-E	CONCRETE SHALL BE A C-4 MIX AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. TRANSVERSE JOINTS SHALL BE A C JOINT. CONTRACTOR TO TAKE CARE WHEN TYING INTO EXISTING PAVEMENT, ANY DAMAGE MADE TO THE EXISTING PAVEMENT SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR. CONCRETE MANHOLE BOXOUTS ARE INCIDENTAL TO BID ITEM.
39	7030-H-3	-
40	7040-H	CONTRACTOR TO TAKE CARE TO PRESERVE THE PAVEMENT NOT MARKED AS REMOVAL, ANY DAMAGE MADE TO THIS PAVEMENT SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
41	8030-A	CONTRACTOR SHALL CONDUCT OPERATIONS SO THAT ALL STREETS ALONG THE PROPOSED PROJECT ARE LEFT OPEN TO AT LEAST ONE LANE OF TRAFFIC AT ALL TIMES.
42	8040-I	PROTECT SIGNAGE DURING CONSTRUCTION PHASING.
43	9010-A	-
44	9040-A-2	SEE SPECIAL PROVISIONS.
45	9040-F-1	-
46	9040-F-2	-
47	9040-N-1	-
48	9040-N-3	-
49	9040-R	-
50, 51	9040-T-1	-
52	11020-A	-
53	11050-A	-
54	SPECIAL	THIS BID ITEM WILL BE REMOVED FROM THE PROJECT IF BID ALTERNATE #1 IS SELECTED BY OWNER. SEE SPECIAL PROVISIONS.
55	SPECIAL	THIS BID ITEM WILL BE REMOVED FROM THE PROJECT IF BID ALTERNATE #1 IS SELECTED BY OWNER. SEE SPECIAL PROVISIONS.
56	SPECIAL	SEE SPECIAL PROVISIONS.
57	SPECIAL	SEE SPECIAL PROVISIONS.
58	SPECIAL	SEE SPECIAL PROVISIONS.
59	4010-C-1	ALL WORK ASSOCIATED WITH THIS BID ITEM WILL BE INCLUDED AS PART OF BID ALTERNATE #1.
60	4010-C-2	BORE PITS ARE INCIDENTAL. ALL WORK ASSOCIATED WITH THIS BID ITEM WILL BE INCLUDED AS PART OF BID ALTERNATE #1.
61	4010-C-2	BORE PITS ARE INCIDENTAL. ALL WORK ASSOCIATED WITH THIS BID ITEM WILL BE INCLUDED AS PART OF BID ALTERNATE #1.
62	SPECIAL	ALL WORK ASSOCIATED WITH THIS BID ITEM WILL BE INCLUDED AS PART OF BID ALTERNATE #1. SEE SPECIAL PROVISIONS.
63	SPECIAL	ALL WORK ASSOCIATED WITH THIS BID ITEM WILL BE INCLUDED AS PART OF BID ALTERNATE #1. SEE SPECIAL PROVISIONS.



PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

QUANTITIES AND REFERENCE
INFORMATION

PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS DATE	
70 PERCENT REVIEW INITIALS DATE	T.J. 8/4/2024
95 PERCENT REVIEW INITIALS DATE	E.E.J. 7/31/2026
REVISIONS	



Plotted By: ALAN PLUMMER
Sheet Size: ANSI FULL BLEED D (22.00 X 34.00 INCHES) Plot Scale: 1:1

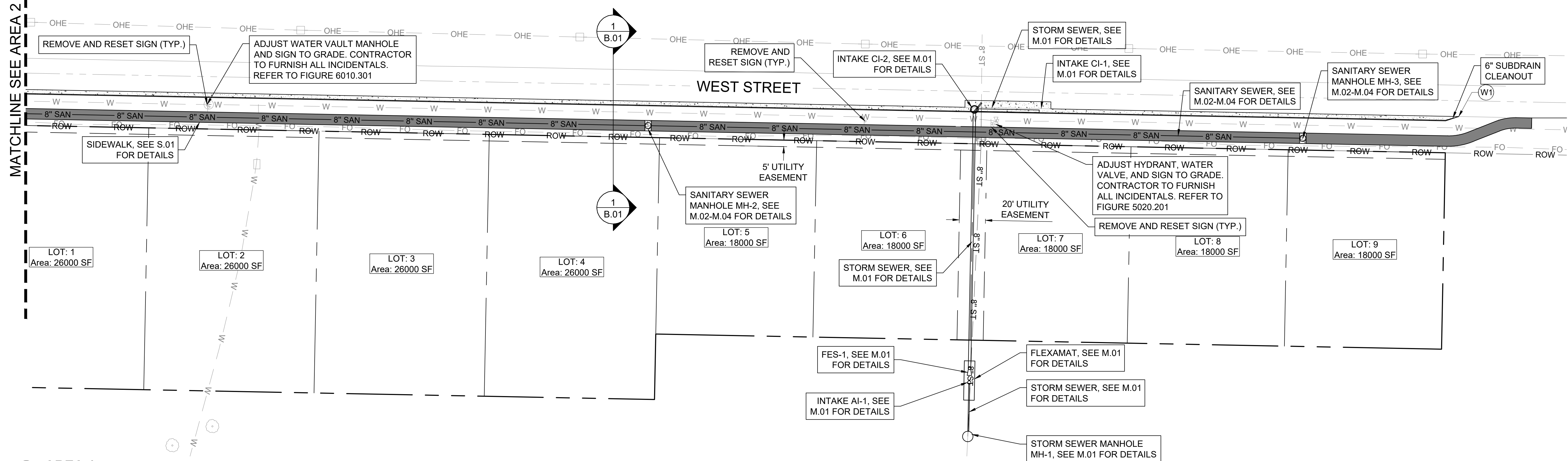


PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

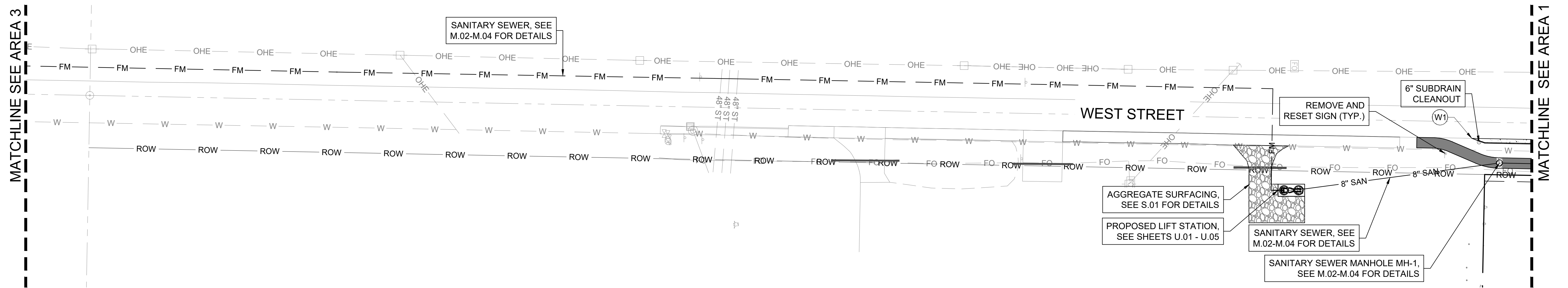
PROPOSED LAYOUT PLAN

PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS	
DATE	
70 PERCENT REVIEW INITIALS	T.J.
DATE	8/4/2024
95 PERCENT REVIEW INITIALS	E.L.J.
DATE	7/31/2026
REVISIONS	

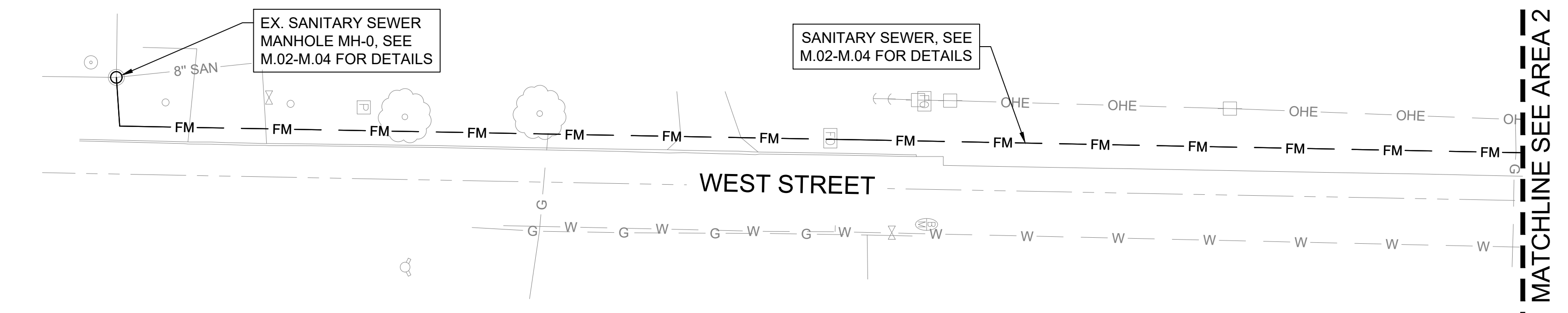
D.02



1 AREA 1
SCALE: 1"=40'-0"



2 AREA 2
SCALE: 1"=40'-0"



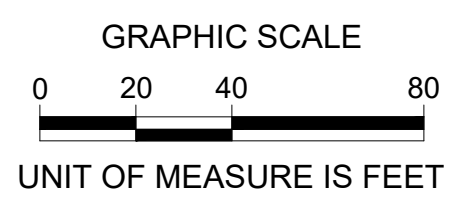
3 AREA 3
SCALE: 1"=40'-0"

IMPROVEMENTS LEGEND

- STANDARD DUTY 8" CONCRETE (C-4 TYPE I OR II MIX)
- 6" CONCRETE SIDEWALK (C-4 TYPE I OR II MIX)
- 4" AGGREGATE SURFACING
- 8" SAN PROPOSED SANITARY
- FM PROPOSED FORCE MAIN
- 6" W PROPOSED WATER
- PROPOSED STORM

SITE IMPROVEMENTS

- W1 WARP CURB 0" TO 6" IN 10'





HORIZONTAL SURVEY CONTROL - IOWA NORTH			
POINT NAME	NORTHING US SURVEY FEET	EASTING US SURVEY FEET	LONG DESCRIPTION
CP-100	3498328.63	4549931.73	SET 5/8" REBAR
CP-101	3496592.81	4549610.70	SET 5/8" REBAR 1' +/- SE OF MONUMENT SIGN BASE
CP-102	3499623.36	4549843.58	SET 5/8" REBAR

BENCHMARKS - NAVD88				
POINT NAME	NORTHING US SURVEY FEET	EASTING US SURVEY FEET	ELEVATION	LONG DESCRIPTION
BM-200	3499860	4549751	1294.36	NORTH BURY BOLT ON HYDRANT
BM-201	3496970	4549683	1295.91	CUT "X" ON WALK IN LINE W/ SOUTH EDGE OF CLUBHOUSE PARKING

GRAPHIC SCALE

060120240

UNIT OF MEASURE IS FEET

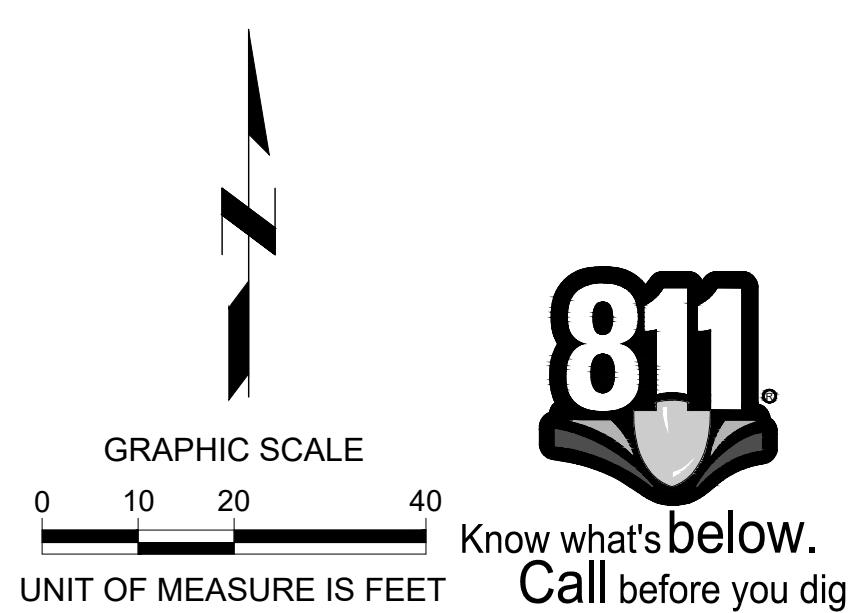
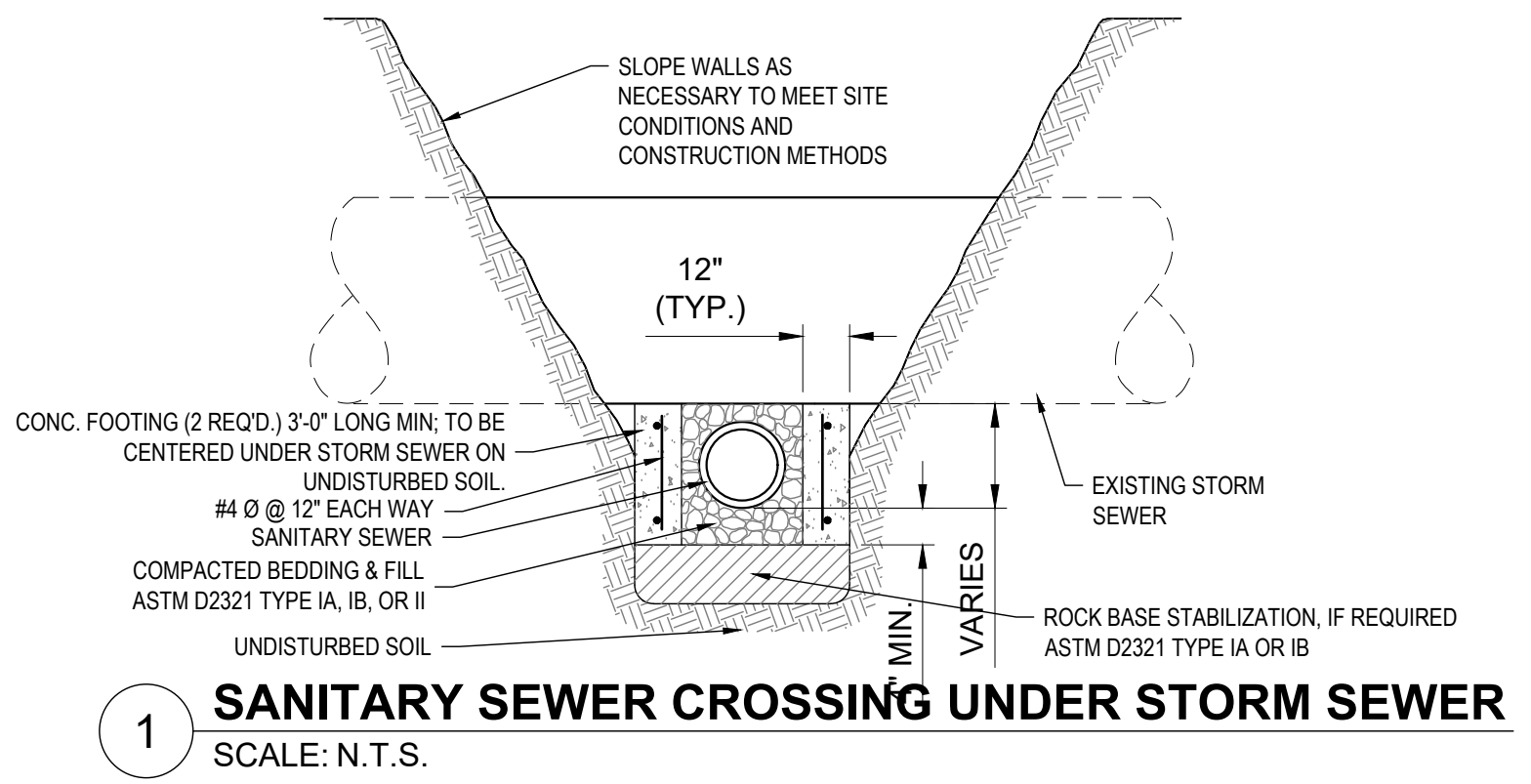
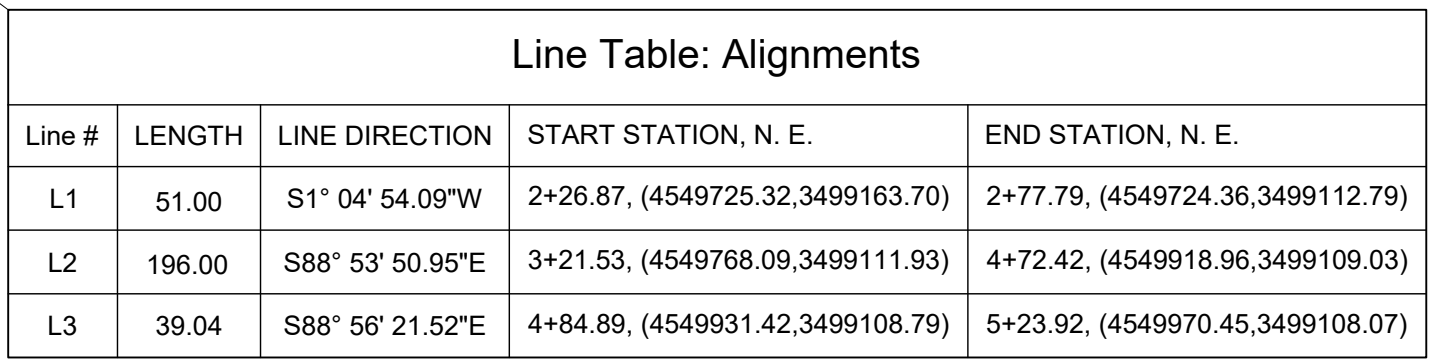
811

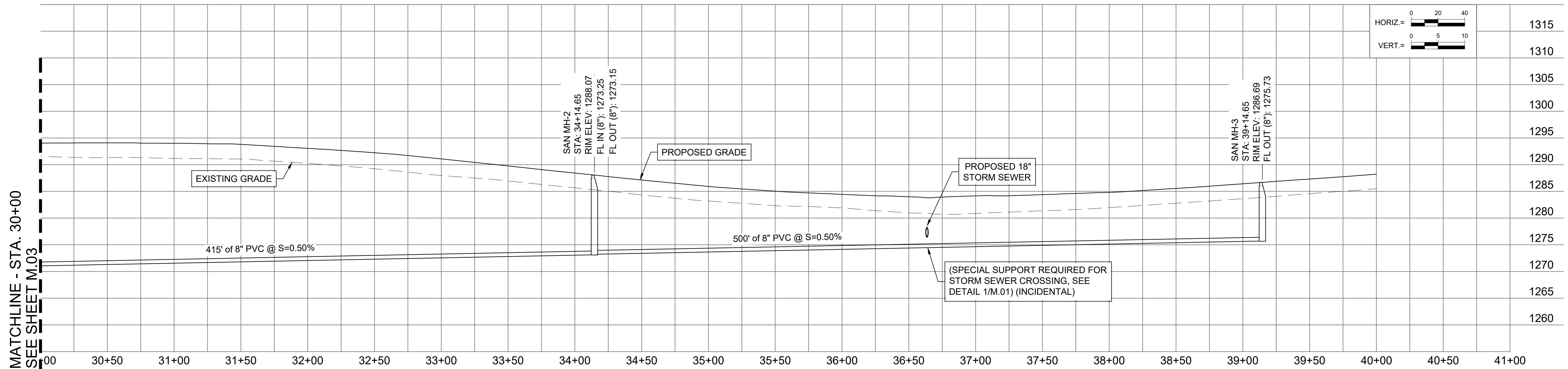
Know what's below.
Call before you dig.

PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

REFERENCE TIES AND
BENCHMARKS

PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND	
INITIALS	
DATE	
70 PERCENT REVIEW	
INITIALS	T.J.
DATE	3/4/2024
95 PERCENT REVIEW	
INITIALS	E.E.J.
DATE	7/31/2026
REVISIONS	

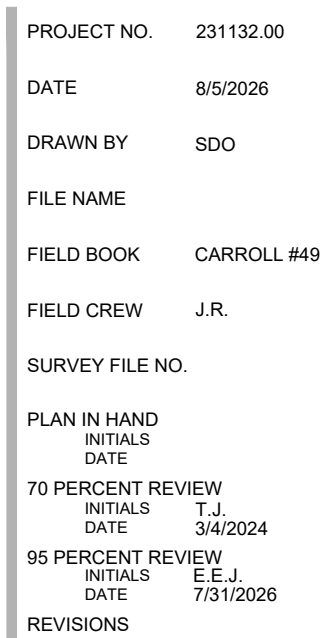




4" PVC SANITARY SEWER SERVICE STUB TABLE		
STATION	LOT	LENGTH (LF)
29+17.21	1	20
30+40.77	2	20
31+76.97	3	20
33+06.87	4	20
34+36.78	5	20
35+56.70	6	20
36+76.62	7	20
37+96.52	8	20
39+16.42	9	20

GENERAL NOTES:

1. CONTRACTOR SHALL UTILIZE SHORING AND/OR TRENCH BOXES TO PROTECT EXISTING UTILITIES DURING SANITARY SEWER INSTALLATION, AS NECESSARY. SHORING/TRENCH BOXES SHALL BE CONSIDERED INCIDENTAL.
2. SEE SPECIFICATIONS SECTION 01 10 00 FOR ADDITIONAL MANHOLE REQUIREMENTS.



Plotted By: ALAN PLUMMER
Sheet Size: ANSI FULL BLEED D (22.00 X 34.00 INCHES) Plot Scale: 1:1

Drawing Name: 231132_C500.dwg
File Path: \\jao\data\Projects\231132_00-Carroll Muni Golf Course Subdivision\7 Design\2 Drawings\Sheets

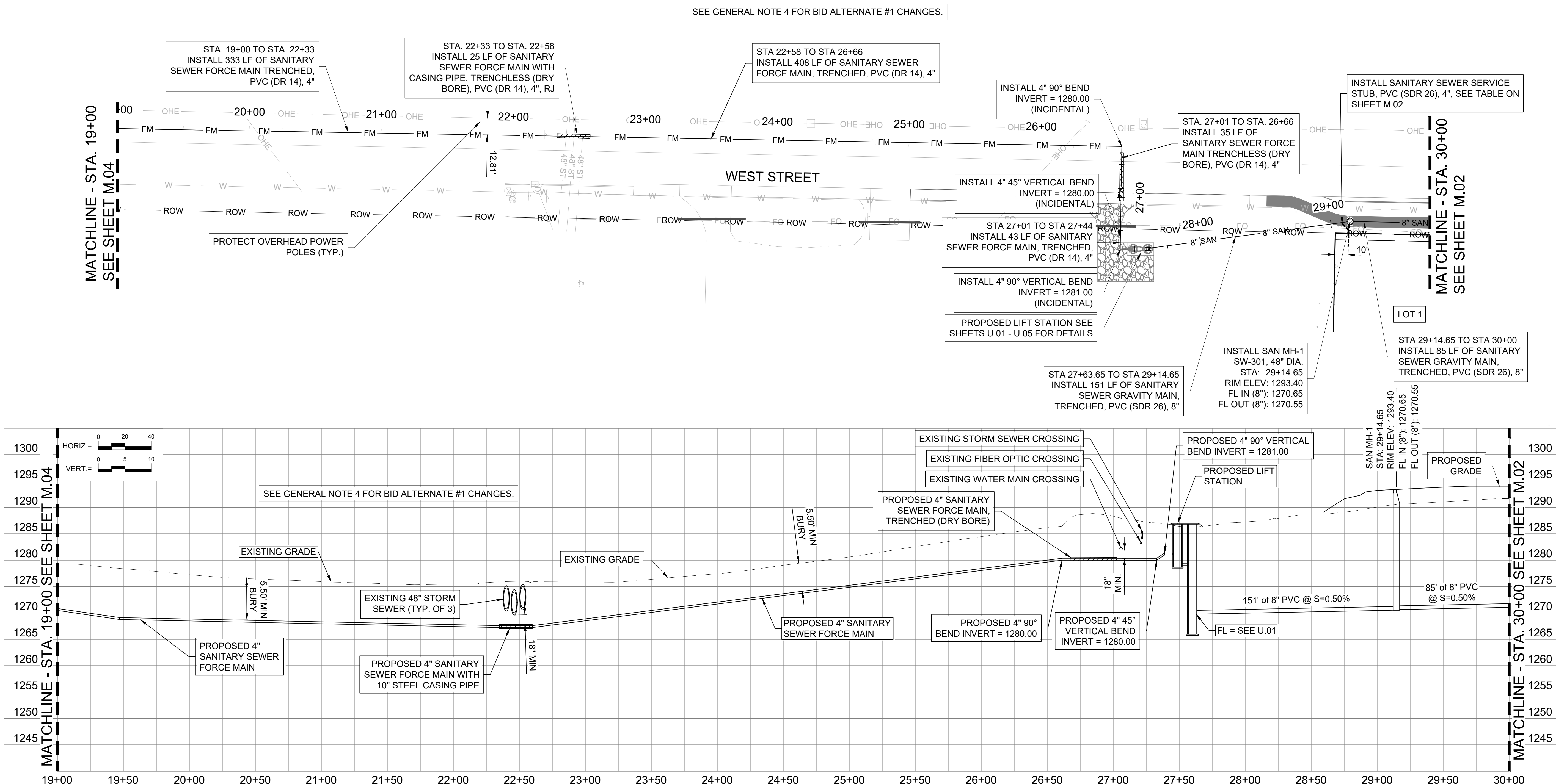


PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

SANITARY PLAN AND
PROFILE

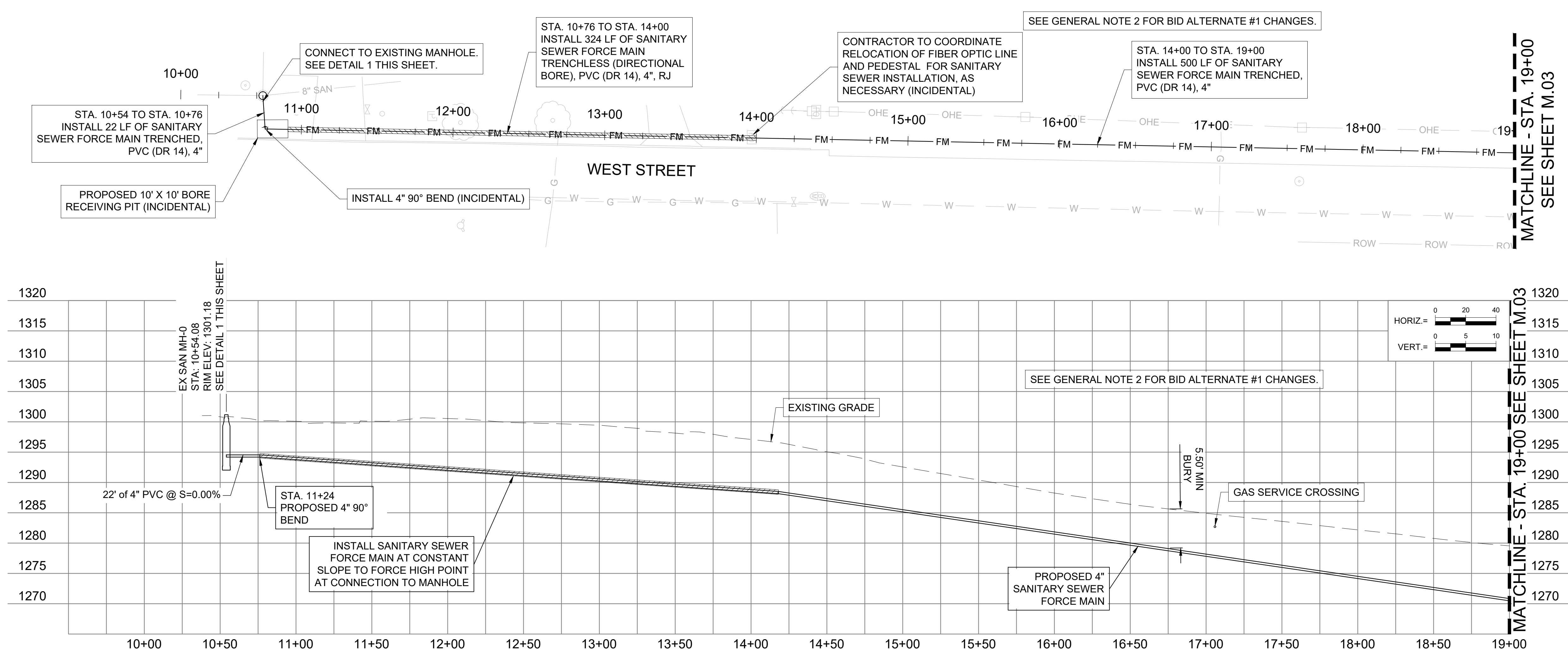
PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS	
DATE	
70 PERCENT REVIEW INITIALS	T.J.
DATE	8/4/2024
95 PERCENT REVIEW INITIALS	E.L.J.
DATE	7/31/2026
REVISIONS	

M.03

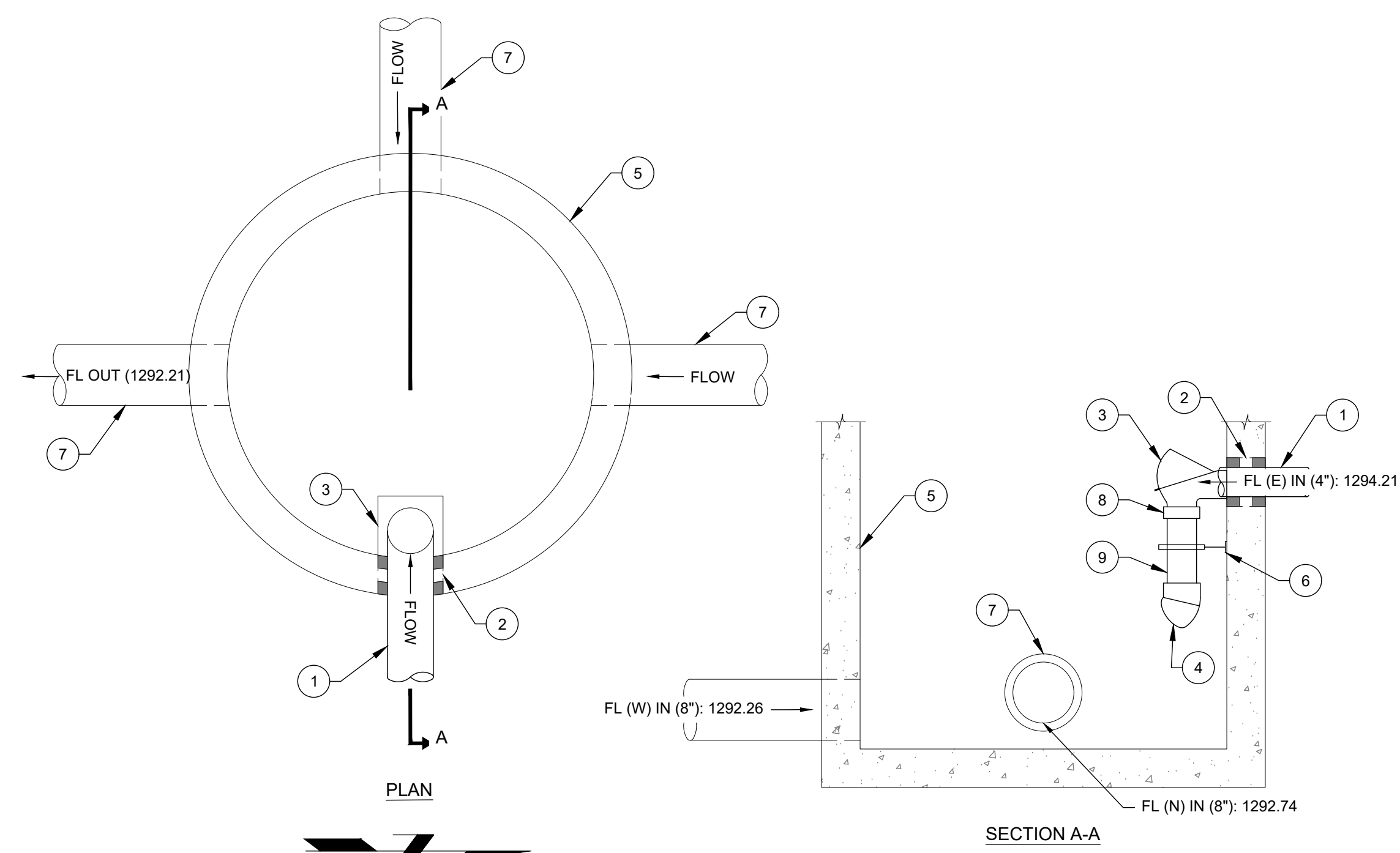


- GENERAL NOTES:
- SANITARY SEWER FORCE MAIN THAT IS CALLED OUT FOR TRENCHED INSTALLATION MAY BE INSTALLED AS TRENCHLESS AT CONTRACTOR'S DISCRETION AND AT NO ADDITIONAL COST TO OWNER.
 - CONTRACTOR SHALL UTILIZE SHORING AND/OR TRENCHING BOXES TO PROTECT EXISTING UTILITIES DURING SANITARY SEWER INSTALLATION, AS NECESSARY. SHORING/TRENCH BOXES SHALL BE CONSIDERED INCIDENTAL.
 - SEE SPECIFICATION SECTION 01 10 00 FOR ADDITIONAL MANHOLE REQUIREMENTS.
 - BID ALTERNATE #1 SHALL INCLUDE THE FOLLOWING CHANGES TO THE CONTRACT DOCUMENTS:
 - THE PROPOSED LIFT STATION SHALL CHANGE FROM THE BASE BID LIFT STATION TO THE BID ALTERNATE LIFT STATION.
 - ALL 4" FORCE MAIN AND FITTINGS SHALL BE CHANGED TO 2" HPDE FORCE MAIN AND FITTINGS.
 - THE STEEL CASING FOR THE UNDERCROSSING OF THE THREE (3) 48" STORM SEWERS FROM STA. 22+33 TO STA. 22+58 ON SHEET M.03 SHALL NOT BE REQUIRED.





- GENERAL NOTES:
- SANITARY SEWER FORCE MAIN THAT IS CALLED OUT FOR TRENCHED INSTALLATION MAY BE INSTALLED AS TRENCHLESS AT CONTRACTOR'S DISCRETION AND AT NO ADDITIONAL COST TO OWNER.
 - BID ALTERNATE #1 SHALL INCLUDE THE FOLLOWING CHANGES TO THE CONTRACT DOCUMENTS:
 - THE PROPOSED LIFT STATION SHALL CHANGE FROM THE BASE BID LIFT STATION TO THE BID ALTERNATE LIFT STATION.
 - ALL 4" FORCE MAIN AND FITTINGS SHALL BE CHANGED TO 2" HPDE FORCE MAIN AND FITTINGS.
 - THE STEEL CASING FOR THE UNDERCROSSING OF THE THREE (3) 48" STORM SEWERS FROM STA. 22+33 TO STA. 22+58 ON SHEET M.03 SHALL NOT BE REQUIRED.



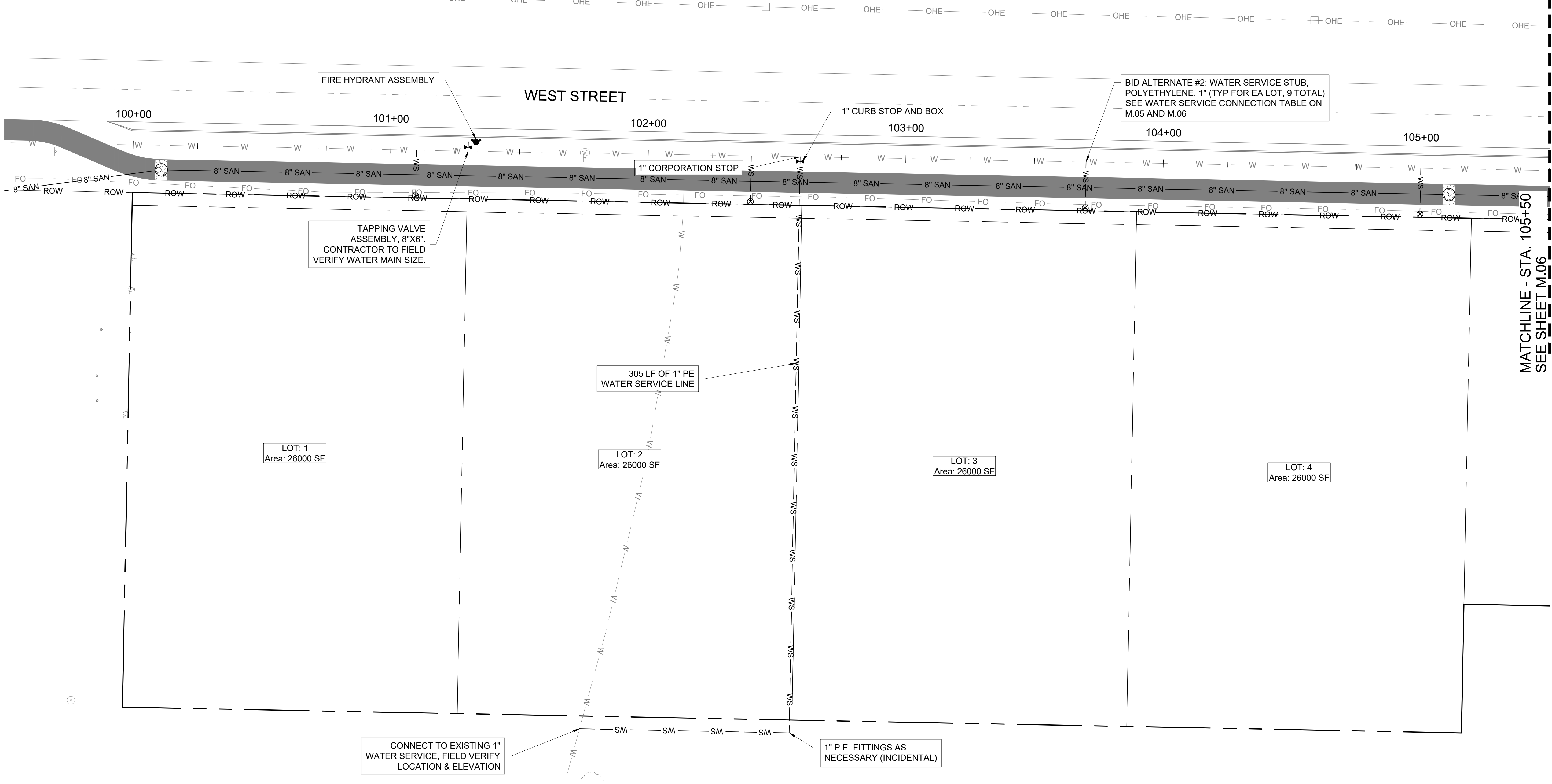
1 PVC DROP PIPE DETAIL
SCALE: N.T.S.

LEGEND	
1	4" SANITARY SEWER FORCE MAIN
2	CORE DRILL CONNECTION TO EXISTING MANHOLE. INSTALL WATERSTOP GROUTING RING AROUND PIPE PENETRATION AND FILL WITH NON-SHRINK GROUT.
3	FIBERGLASS INSIDE DROP BOWL W/ FORCE LINE HOOD
4	4" 45° BEND, ROTATED TO FLOW INTO DOWN STREAM PIPE
5	EXISTING MANHOLE, FIELD VERIFY SIZE AND ELEVATIONS
6	STAINLESS STEEL PIPE SUPPORTS
7	EXISTING 8" SANITARY SEWER MAIN, FIELD VERIFY ELEVATIONS
8	FLEXIBLE FERNCO COUPLING
9	PVC DROP PIPE



Plotted By: ALAN PLUMMER
Sheet Size: ANSI FULL BLEED D (22.00 X 34.00 INCHES) Plot Scale: 1:1

Drawing Name: 231132_C502.dwg
File Path: \\jco\data\Projects\231132_00-Carroll Muni Golf Course Subdivision\7 Design\2 Drawings\SHEETS



WATER SERVICE TABLE (BID ALTERNATE #2)					
STATION	SIDE OF ROAD	SERVICE SIZE	SERVICE LENGTH	WATER SERVICE STUB (EA)	LOT NUMBER
101+10	EAST	1"	18 LF	YES	1
102+40	EAST	1"	18 LF	YES	2
103+70	EAST	1"	18 LF	YES	3
105+00	EAST	1"	18 LF	YES	4

GRAPHIC SCALE

0 10 20 40

UNIT OF MEASURE IS FEET

JEO CONSULTING GROUP
1-800-723-8567

23113

PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

WATER PLAN

PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS	
DATE	
70 PERCENT REVIEW INITIALS	T.J.
DATE	8/4/2024
95 PERCENT REVIEW INITIALS	E.L.J.
DATE	7/31/2026
REVISIONS	

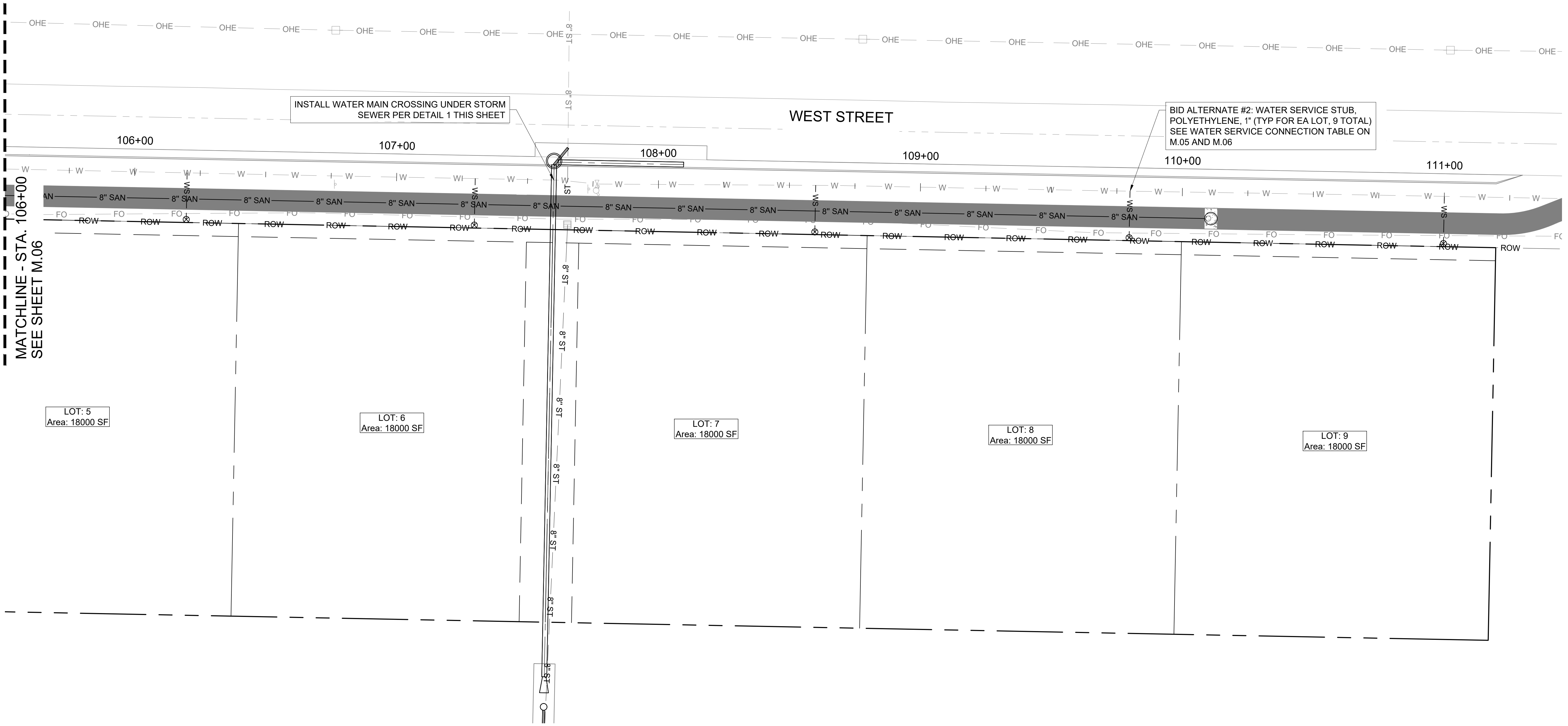
M.05

Plotted By: ALAN PLUMMER
Sheet Size: ANSI FULL BLEED D (22.00 X 34.00 INCHES) Plot Scale: 1:1

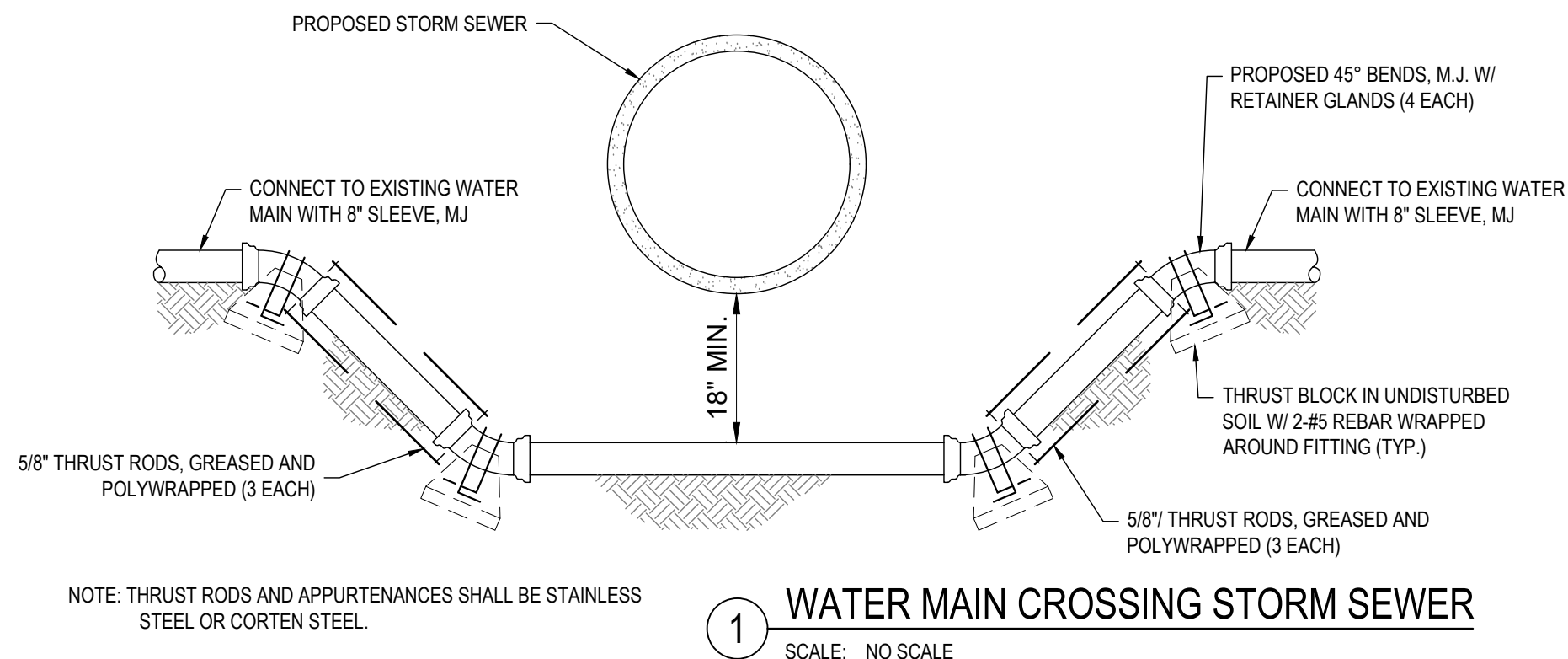


PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

WATER PLAN



WATER SERVICE TABLE (BID ALTERNATE #2)					
STATION	SIDE OF ROAD	SERVICE SIZE	SERVICE LENGTH	WATER SERVICE STUB (EA)	LOT NUMBER
106+20	EAST	1"	18 LF	YES	5
107+30	EAST	1"	18 LF	YES	6
108+60	EAST	1"	18 LF	YES	7
109+80	EAST	1"	18 LF	YES	8
111+00	EAST	1"	18 LF	YES	9



Drawing Name: 231132_C502.dwg
File Path: \\jco\data\Projects\231132_00-Carroll Muni Golf Course Subdivision\7 Design\2 Drawings\SHEETS

GRAPHIC SCALE

0 10 20 40

UNIT OF MEASURE IS FEET

Know what's below.
Call before you dig.

PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS	
DATE	
70 PERCENT REVIEW INITIALS	T.J.
DATE	8/4/2024
95 PERCENT REVIEW INITIALS	E.L.J.
DATE	7/31/2026
REVISIONS	

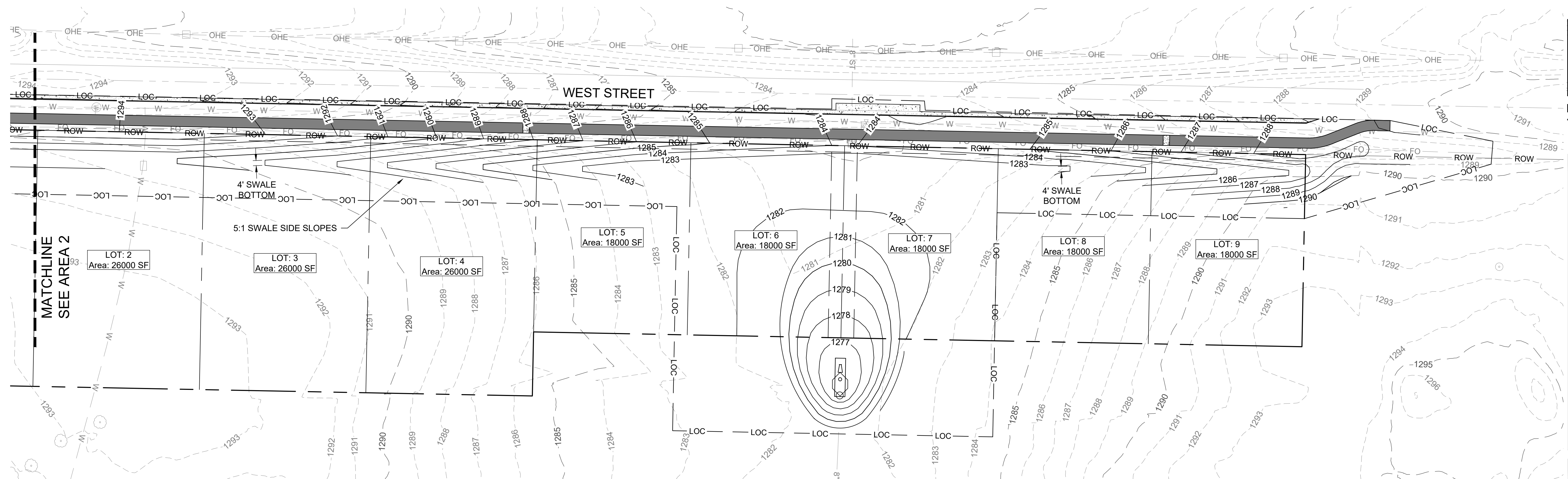
M.06

Plotted By: ALAN PLUMMER
Sheet Size: ANSI FULL BLEED D (22.00 X 34.00 INCHES) Plot Scale: 1:1

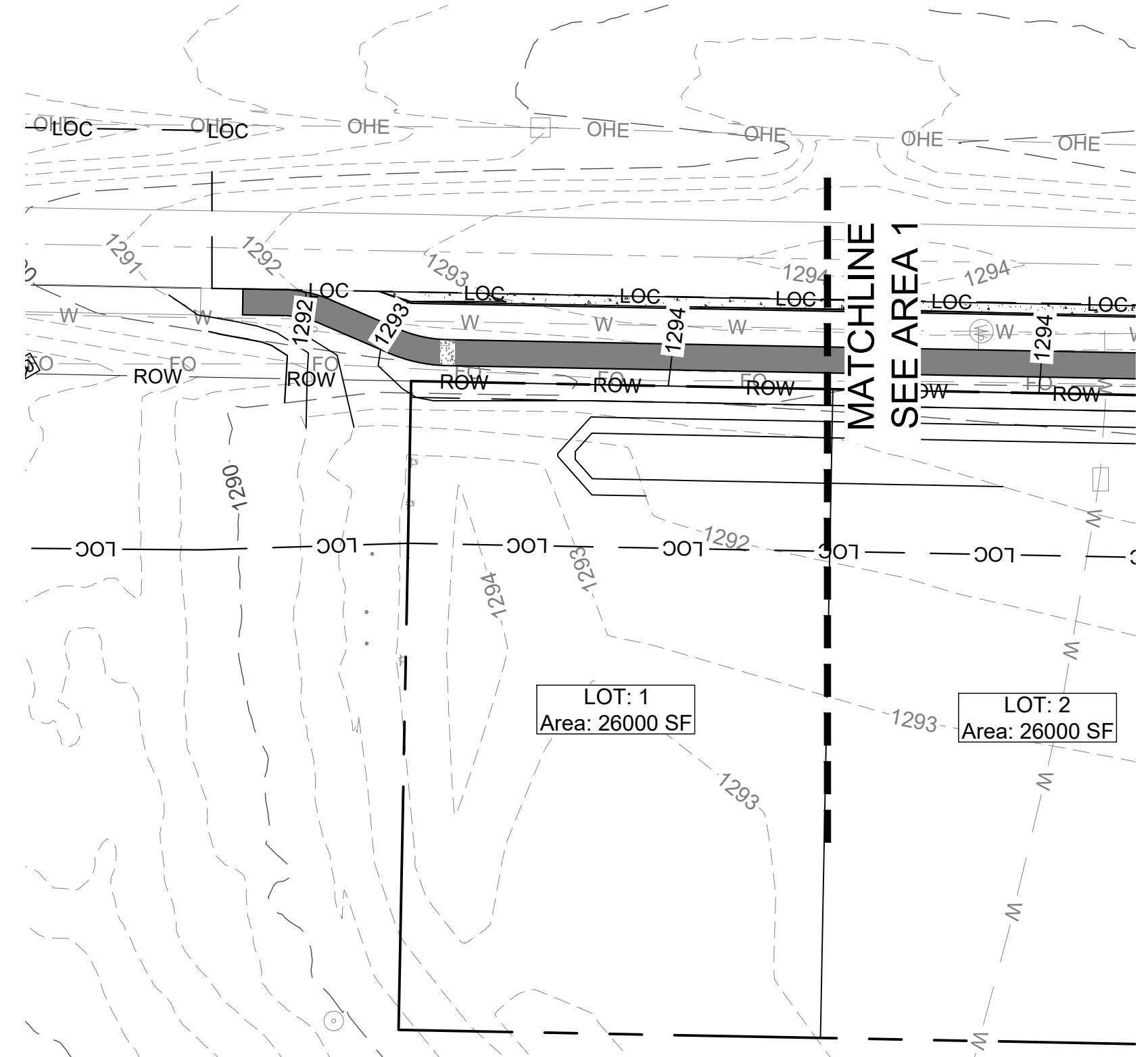
Drawing Name: 231132_C300-Phase1.dwg
File Path: \\jco\data\Projects\231132_00-Carroll Muni Golf Course Subdivision\7 Design\2 Drawings\SHEETS



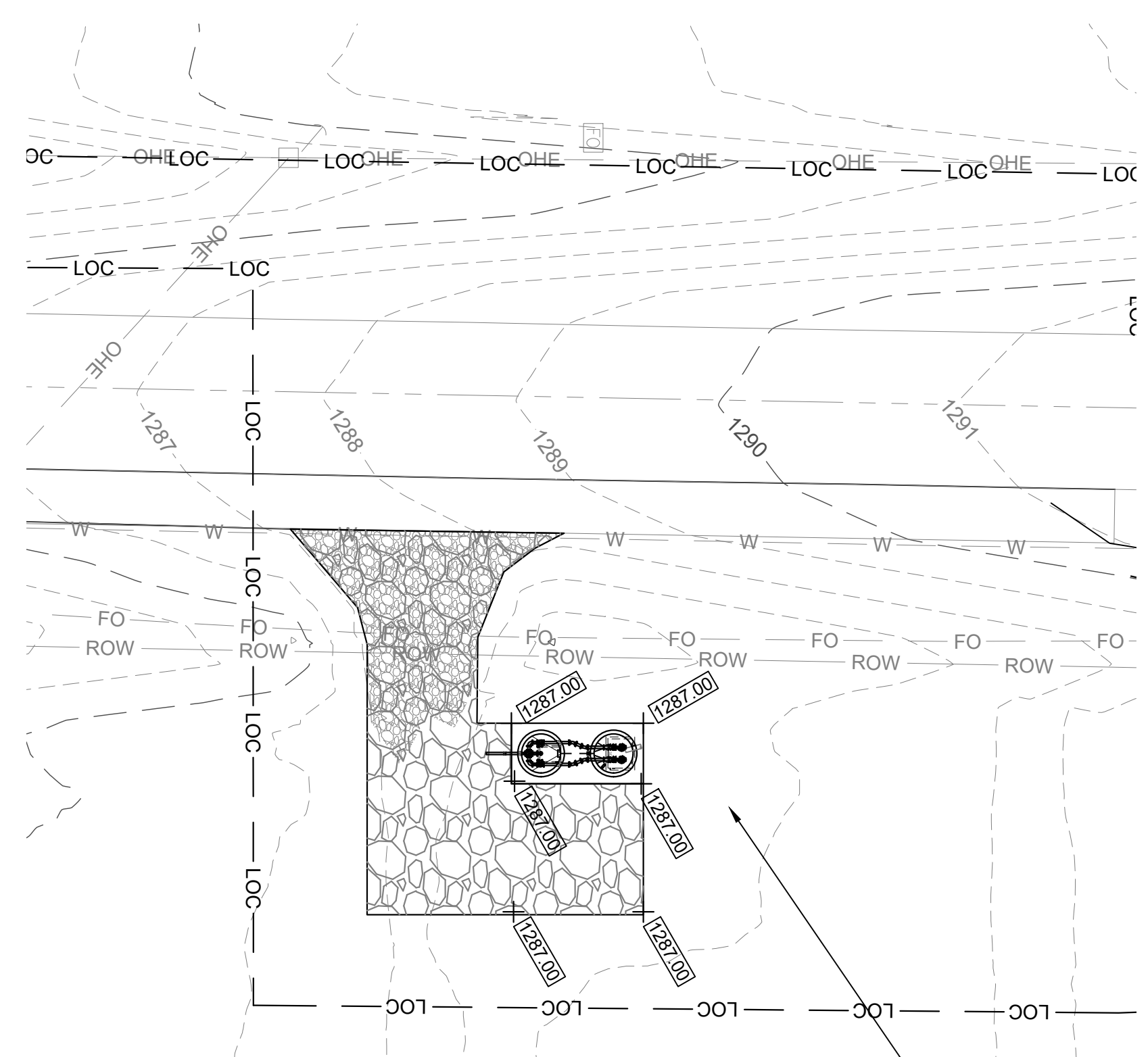
PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA



1 AREA 1
SCALE: 1"=40'-0"



2 AREA 2
SCALE: 1"=40'-0"



3 LIFT STATION GRADING
SCALE: 1"=20'-0"

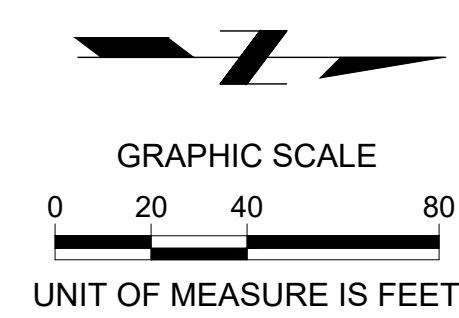
PROVIDE SITE GRADING AS NECESSARY TO DIRECT SURFACE DRAINAGE AWAY FROM LIFT STATION

PHASE 1 APPROXIMATE EARTHWORK QUANTITIES		
CUT	FILL	NET
1,884 CY	6,230 CY	4,346 CY FILL

- * NOTES:
1. A FILL FACTOR OF 1.3 WAS USED IN DETERMINING EARTHWORK QUANTITIES. THE EARTHWORK QUANTITIES EXCLUDE PAVEMENT.
 2. PHASE 1 GRADING PLAN TO BE FULLY CONSTRUCTED BY CONTRACTOR AS PART OF THIS PROJECT. PHASE 2 GRADING PLAN TO BE COMPLETED BY FUTURE DEVELOPER.

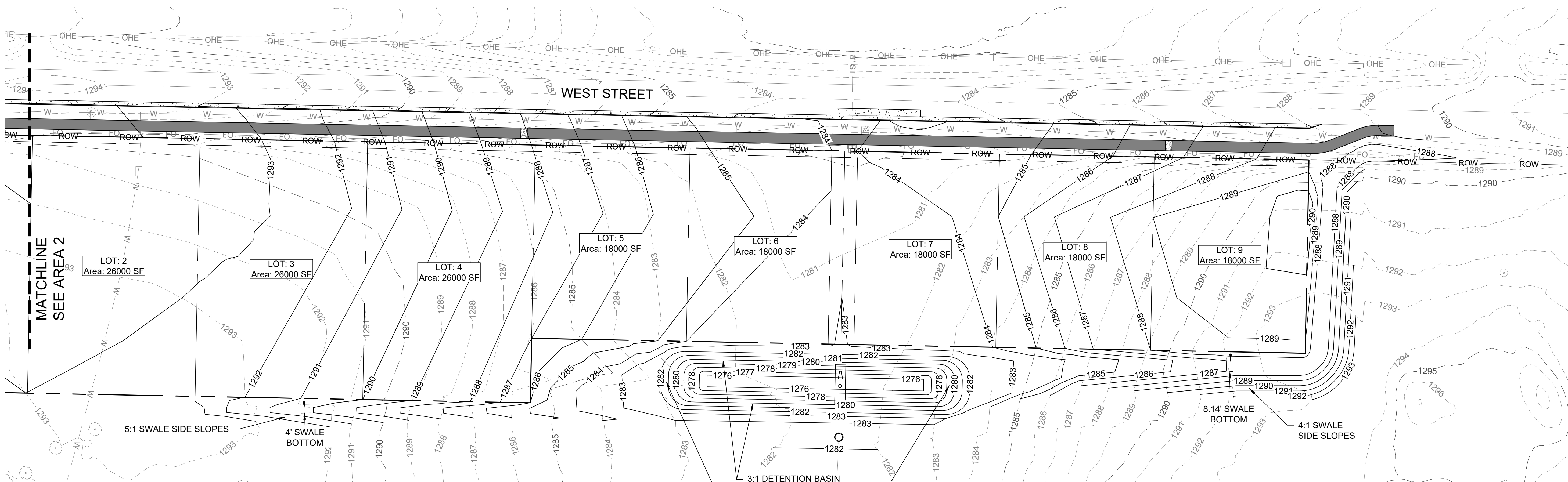
LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR



PHASE 1
GRADING PLAN

PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS	
DATE	
70 PERCENT REVIEW INITIALS	T.J.
DATE	8/4/2024
95 PERCENT REVIEW INITIALS	E.L.J.
DATE	7/31/2026
REVISIONS	



1
AREA 1
SCALE: 1"=40'-0"

PHASE 2 APPROXIMATE EARTHWORK QUANTITIES (BY PRIVATE DEVELOPER)		
CUT	FILL	NET
4,565 CY	17,780 CY	13,215 CY FILL

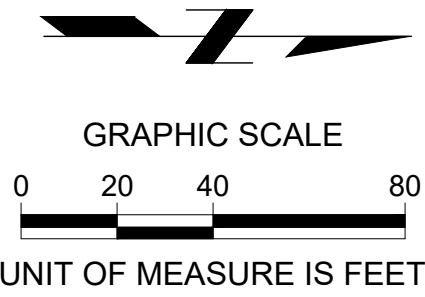
- * NOTES:
- A FILL FACTOR OF 1.3 WAS USED IN DETERMINING EARTHWORK QUANTITIES. THE EARTHWORK QUANTITIES EXCLUDE PAVEMENT.
 - PHASE 1 GRADING PLAN TO BE FULLY CONSTRUCTED BY CONTRACTOR AS PART OF THIS PROJECT. PHASE 2 GRADING PLAN TO BE COMPLETED BY FUTURE DEVELOPER.

STORM BASIN INFORMATION

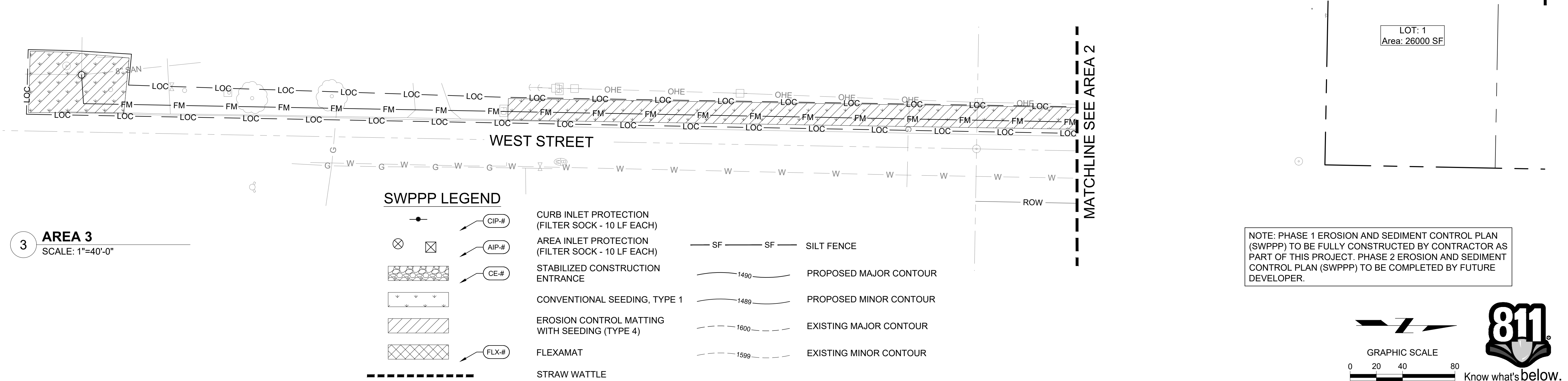
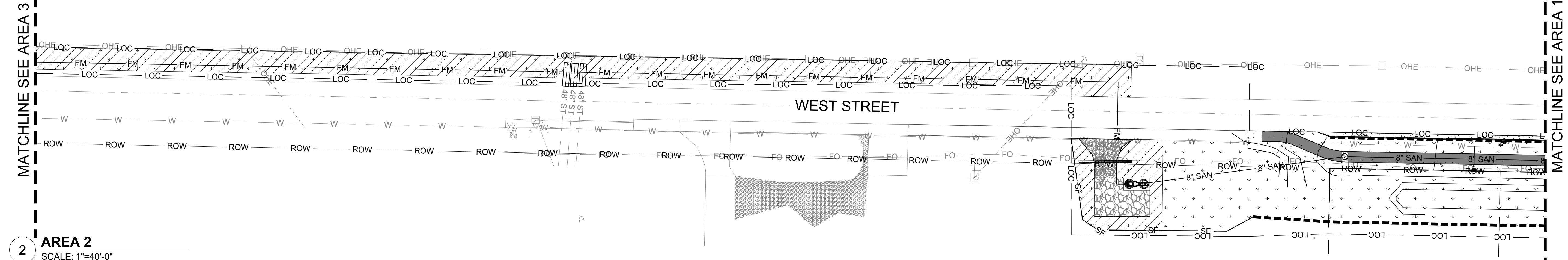
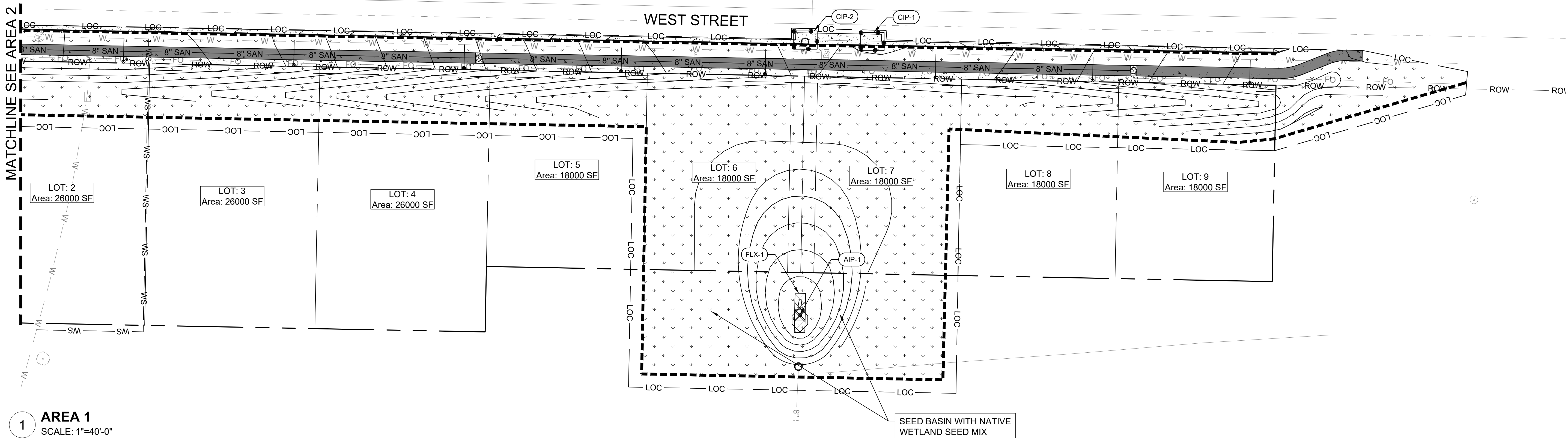
BASIN TOP ELEVATION = 1283
OVERFLOW WEIR ELEVATION = 1283
BASIN BOTTOM ELEVATION = 1276
TOTAL DRY DEPTH = 6'
SIDE SLOPES = 3:1 AND 6:1

LEGEND

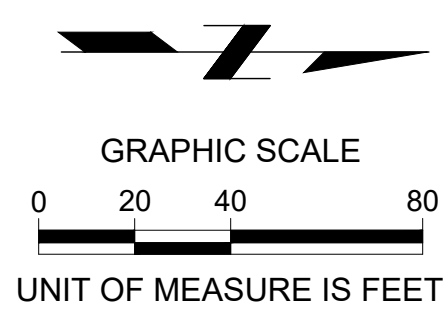
- 1490 — PROPOSED MAJOR CONTOUR
- 1489 — PROPOSED MINOR CONTOUR
- - - 1600 - - - EXISTING MAJOR CONTOUR
- - - 1599 - - - EXISTING MINOR CONTOUR



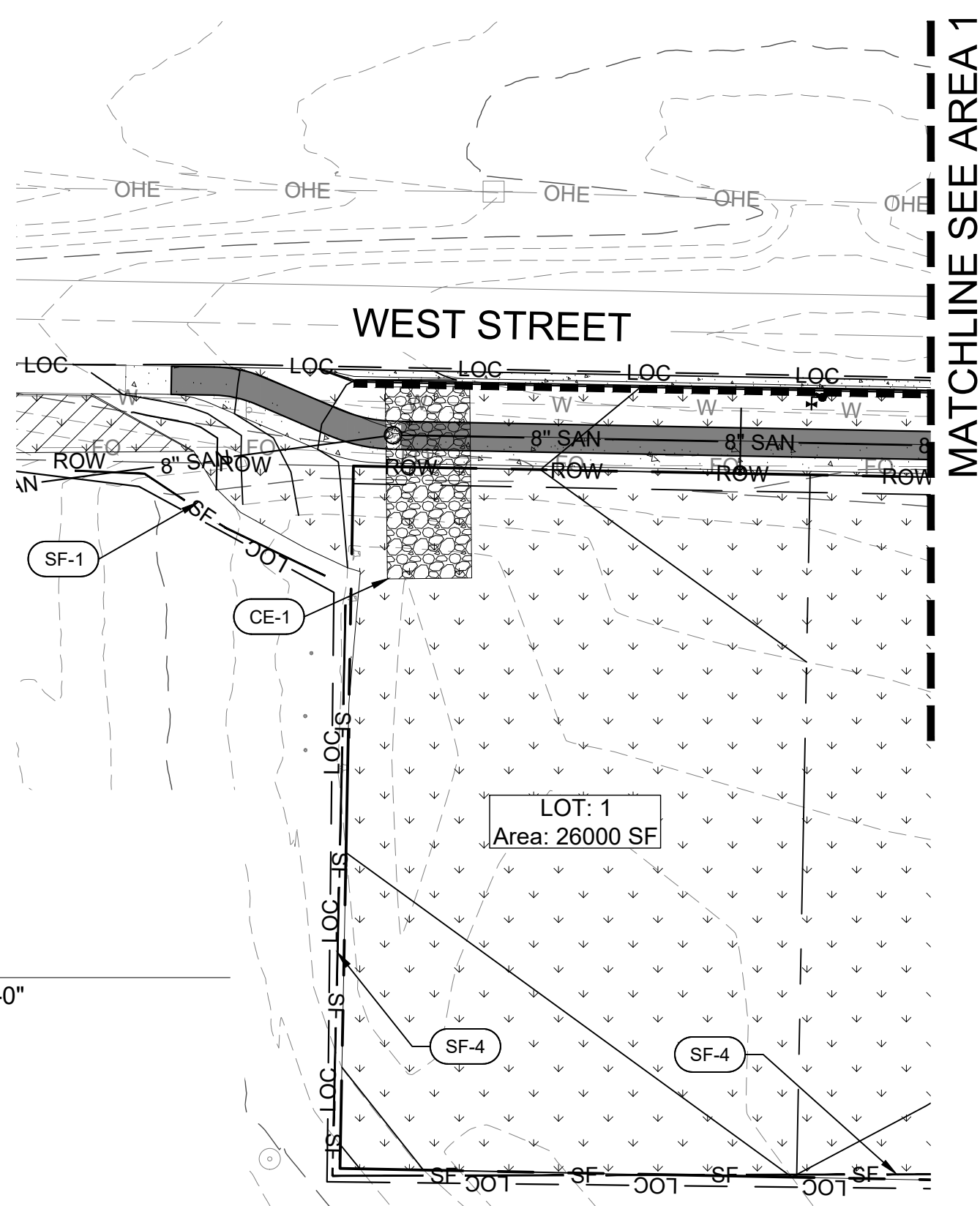
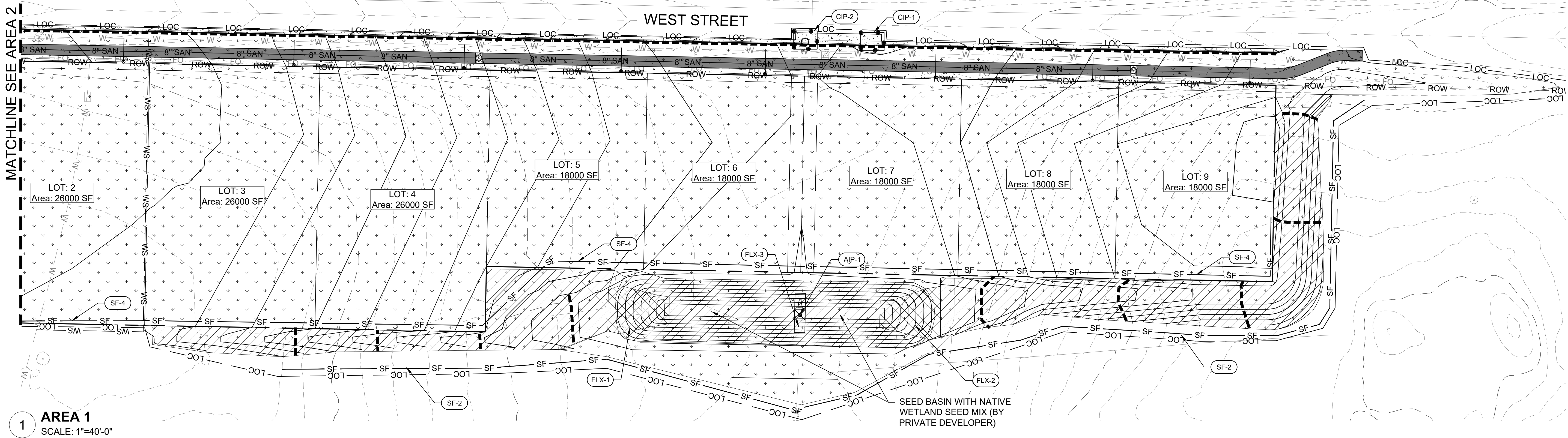
PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS	
DATE	
70 PERCENT REVIEW INITIALS	T.J.
DATE	8/4/2024
95 PERCENT REVIEW INITIALS	E.L.J.
DATE	7/31/2026
REVISIONS	



NOTE: PHASE 1 EROSION AND SEDIMENT CONTROL PLAN (SWPPP) TO BE FULLY CONSTRUCTED BY CONTRACTOR AS PART OF THIS PROJECT. PHASE 2 EROSION AND SEDIMENT CONTROL PLAN (SWPPP) TO BE COMPLETED BY FUTURE DEVELOPER.



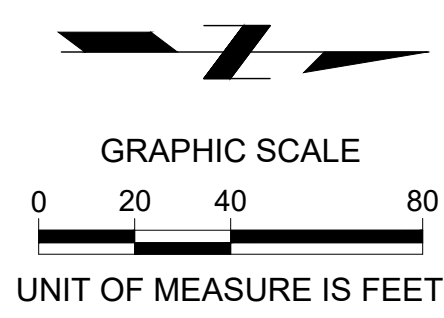
PROJECT NO.	231132.00
DATE	8/5/2026
DRAWN BY	SDO
FILE NAME	
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	
PLAN IN HAND INITIALS DATE	
70 PERCENT REVIEW INITIALS DATE	T.J. 8/4/2024
95 PERCENT REVIEW INITIALS DATE	E.L.J. 7/31/2026
REVISIONS	



SWPPP LEGEND

	CIP-#	CURB INLET PROTECTION (FILTER SOCK - 10 LF EACH)
	AIP-#	AREA INLET PROTECTION (FILTER SOCK - 10 LF EACH)
	CE-#	STABILIZED CONSTRUCTION ENTRANCE
		CONVENTIONAL SEEDING, TYPE 1
		EROSION CONTROL MATTING WITH SEEDING (TYPE 4)
	FLX-#	FLEXAMAT
		STRAW WATTLE
	SF	SILT FENCE
	1490	PROPOSED MAJOR CONTOUR
	1489	PROPOSED MINOR CONTOUR
	1600	EXISTING MAJOR CONTOUR
	1599	EXISTING MINOR CONTOUR

NOTE: PHASE 1 EROSION AND SEDIMENT CONTROL PLAN (SWPPP) TO BE FULLY CONSTRUCTED BY CONTRACTOR AS PART OF THIS PROJECT. PHASE 2 EROSION AND SEDIMENT CONTROL PLAN (SWPPP) TO BE COMPLETED BY FUTURE DEVELOPER.



BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE SCHEDULE:

THE FOLLOWING MAINTENANCE SCHEDULE HAS BEEN PROVIDED. THE CONTRACTOR MUST PERFORM THE INSPECTIONS. THE CONTRACTOR MUST PERFORM ALL NEEDED MAINTENANCE. FURTHERMORE, ALL EROSION CONTROL FEATURES REQUIRING MAINTENANCE MAY NOT BE LISTED BELOW. THE CONTRACTOR MUST PERFORM THEIR RESPECTIVE DUTIES ON ALL BMP'S THAT ARE NOT LISTED BELOW AS WELL.

1.

CONSTRUCTION ENTRANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
2.

SILT FENCE - THE MAINTENANCE MEASURES ARE AS FOLLOWS: (2.1) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY; (2.2) CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING; (2.3) SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY; (2.4) SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER; AND (2.5) ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
3.

STORM DRAIN INLET PROTECTION - THE MAINTENANCE MEASURES ARE AS FOLLOWS: (3.1) STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY AND (3.2) STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
4.

TEMPORARY DIVERSION DIKE - THE MEASURE SHALL BE INSPECTED AFTER EVERY STORM AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, OUTLET OR SEDIMENT TRAPPING FACILITY, AS NECESSARY. ONCE EVERY TWO WEEKS, WHETHER A STORM EVENT HAS OCCURRED OR NOT, THE MEASURE SHALL BE INSPECTED AND REPAIRS MADE IF NEEDED. DAMAGES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH WORKING DAY.
5.

TEMPORARY FILL DIVERSION - SINCE THE PRACTICE IS TEMPORARY AND UNDER MOST SITUATIONS WILL BE COVERED THE NEXT WORKING DAY. THE MAINTENANCE REQUIRED SHOULD BE LOW. IF THE PRACTICE IS TO REMAIN IN USE FOR MORE THAN ONE DAY, AN INSPECTION SHALL BE MADE AT THE END OF EACH WORK DAY AND REPAIRS MADE TO THE MEASURE IF NEEDED. THE CONTRACTOR SHOULD AVOID THE PLACEMENT OF ANY MATERIAL OVER THE STRUCTURE WHILE IT IS IN USE. CONSTRUCTION TRAFFIC SHOULD NOT BE PERMITTED TO CROSS THE DIVERSION.
6.

TEMPORARY SEDIMENT TRAP - THE MAINTENANCE MEASURES ARE AS FOLLOWS: (6.1) SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN VOLUME OF THE WET STORAGE, SEDIMENT REMOVAL FROM THE BASIN SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE AND CAUSE SEDIMENTATION PROBLEMS; (6.2) FILTER STONE SHALL BE REGULARLY CHECKED TO ENSURE THAT FILTRATION PERFORMANCE IS MAINTAINED, STONE CHOKED WITH SEDIMENT SHALL BE REMOVED AND CLEANED OR REPLACED; AND (6.3) THE STRUCTURE SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT, THE HEIGHT OF THE STONE OUTLET SHOULD BE CHECKED TO ENSURE THAT ITS CENTER IS AT LEAST 1 FOOT BELOW THE TOP OF THE EMBANKMENT.
7.

TEMPORARY SEDIMENT BASIN - THE BASIN EMBANKMENT SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE EMERGENCY SPILLWAY SHOULD BE CHECKED REGULARLY TO ENSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION-RESISTANT. THE BASIN SHOULD BE CHECKED AFTER EACH RUNOFF PRODUCING RAINFALL FOR SEDIMENT CLEANOUT AND TRASH REMOVAL. WHEN THE SEDIMENT REACHES THE CLEANOUT LEVEL, IT SHALL BE REMOVED AND PROPERLY DISPOSED OF.
8.

TEMPORARY SEEDING - AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION WILL BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED. CONTROL WEEDS BY MOWING.
9.

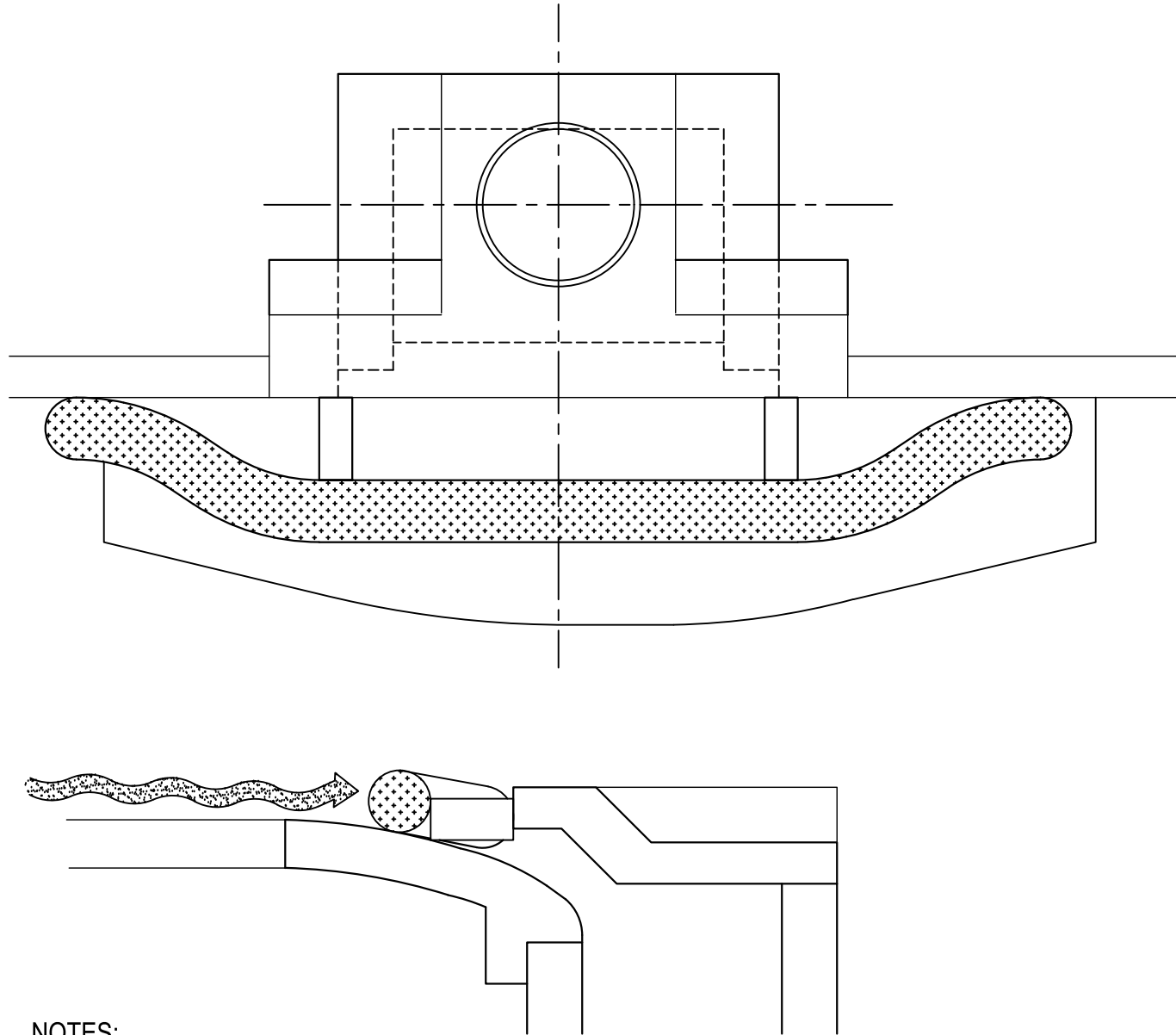
PERMANENT SEEDING - THE MAINTENANCE MEASURES ARE AS FOLLOWS: (9.1) IN GENERAL, A STAND OF VEGETATION CANNOT BE DETERMINED TO BE FULLY ESTABLISHED UNTIL IT HAS BEEN MAINTAINED FOR ONE FULL YEAR AFTER PLANTING; (9.2) NEW SEEDLINGS SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, SUPPLY WATER AS NEEDED, ESPECIALLY LATE IN THE SEASON, IN ABNORMALLY HOT OR DRY CONDITIONS, OR ON ADVERSE SITES, WATER APPLICATIONS SHALL BE CONTROLLED TO PREVENT EXCESSIVE RUNOFF; (10.3) INSPECT ALL SEEDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE; [9.3.A] IF STAND IS INADEQUATE FOR EROSION CONTROL, OVER SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED; [9.3.B] IF STAND IS 60% DAMAGED, RE-ESTABLISH FOLLOWING SEEDBED AND SEEDING RECOMMENDATIONS; [9.3.C] IF STAND HAS LESS THAN 40% COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER, THE SOIL MUST BE TESTED TO DETERMINE IF ACIDITY OR NUTRIENT IMBALANCES ARE RESPONSIBLE, RE-ESTABLISH THE STAND FOLLOWING SEEDBED AND SEEDING RECOMMENDATIONS.
10.

MULCHING - ALL MULCHES AND SOIL COVERINGS SHOULD BE INSPECTED PERIODICALLY (PARTICULARLY AFTER RAINSTORMS) TO CHECK FOR EROSION. WHERE EROSION IS OBSERVED IN MULCHED AREAS, ADDITIONAL MULCH SHOULD BE APPLIED. NETS AND MATS SHOULD BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, REINSTALL NETTING OR MATTING AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. INSPECTIONS SHOULD TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE; REPAIR AS NEEDED.
11.

SOIL STABILIZATION BLANKETS & MATTING - ALL SOIL STABILIZATION BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL WHICH TIME THEY BECOME PERMANENTLY STABILIZED; AT THAT TIME AN ANNUAL INSPECTIONS SHOULD BE ADEQUATE.
12.

STREET CLEANING / SWEEPING - THE MAINTENANCE MEASURES ARE AS FOLLOWS: (12.1) EVALUATE ACCESS POINTS DAILY FOR SEDIMENT TRACKING; (12.2) WHEN TRACKED OR SPILLED SEDIMENT IS FOUND ON PAVED SURFACES, IT WILL BE REMOVED DAILY, DURING TIMES OF HEAVY TRACK-OUT, SUCH AS DURING RAINS, CLEANING MAY BE DONE SEVERAL TIMES THROUGHOUT THE DAY; (12.3) UNKNOWN SPILLS OR OBJECTS WILL NOT BE MIXED WITH THE SEDIMENT; AND (12.4) IF SEDIMENT IS MIXED WITH OTHER POLLUTANTS, IT WILL BE DISPOSED OF PROPERLY AT AN AUTHORIZED LANDFILL.

CONSTRUCTION SCHEDULE ACTIVITY	SCHEDULE
INSTALL ALL BMP'S NEEDED AND ASSOCIATED WITH THE GRADING PHASE SUCH AS STABILIZED CONSTRUCTION ENTRANCES, SILT BASINS, RISER PIPES, OUTLET PIPES, SILT TRAPS, SILT FENCE, DIVERSIONS, TERRACES, ETC.	PRIOR TO ANY STRIPPING OF EXISTING VEGETATION OR GRADING.
PROCEED WITH STRIPPING OF EXISTING VEGETATION AND GRADING IN ACCORDANCE WITH THE GRADING PLAN, WHILE DISTURBING NO MORE THAN NECESSARY.	AFTER INSTALLING ALL BMP'S NEEDED AND ASSOCIATED WITH THE GRADING PHASE. FURTHERMORE, ENGINEER APPROVAL MUST BE OBTAINED BEFORE THE START OF ANY STRIPPING OF EXISTING VEGETATION OR GRADING
PROCEED WITH INFRASTRUCTURE INSTALLATION.	INFRASTRUCTURE INSTALLATION MUST OCCUR PRIOR TO ANY LOT DEVELOPMENT
IMPLEMENT THE INSTALLATION OF TEMPORARY SEEDING, PERMANENT SEEDING, AND/ OR MULCHING.	STABILIZATION MEASURES MUST BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE NO MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
IMPLEMENT THE INSTALLATION ALL BMP'S NEEDED AND ASSOCIATED WITH THE BUILDING PHASE.	BUILDING PHASE BMP'S MUST BE INSTALLED CONCURRENTLY WITH LOT DEVELOPMENT.
PROCEED WITH REMOVAL OF BMP'S.	BMP'S MAY NOT BE REMOVED UNTIL EACH IMPACTED DRAINAGE BASIN HAS BEEN FULLY DEVELOPED. FULL DEVELOPMENT SHALL MEAN INSTALLATION OF PAVEMENTS, BUILDINGS, UTILITIES, LANDSCAPING, AND FULLY ESTABLISHED PERMANENT SEEDING. FURTHERMORE, ENGINEER APPROVAL MUST BE OBTAINED BEFORE REMOVAL OF ANY BMP'S.



- NOTES:
1.

FILTER SOCKS OR BAGS SHALL BE FABRICATED FROM POROUS ORGANIC OR SYNTHETIC FILTER FABRIC.
2.

FILTER SOCKS OR BAGS SHALL BE A MINIMUM OF 9" IN DIAMETER, AND SHALL BE INCREASED AS REQUIRED TO APPROPRIATELY PROTECT THE INLET.
3.

FILTER SOCKS OR BAGS SHALL BE FILLED WITH POROUS AGGREGATE OR SYNTHETIC MEDIA TO EFFECTIVELY FILTER SEDIMENT WITHOUT UNDULY "CHOKING" OR PLUGGING THE INLET(S) TO BE PROTECTED. SOCK SHALL NOT BE FILLED WITH MATERIAL WHICH CAN PROCUDE A POLLUTANT INTO THE STORM SEWER (I.E. COMPOST OR NUTRIENT-RICH MATERIAL).
4.

TRAPPED SEDIMENT SHALL BE REMOVED AFTER EACH RUNOFF EVENT.
5.

WHEN THE POROSITY OF THE FILTER SOCKS OR BAGS AND FILTER MEDIA IS RESTRICTED BY FILTERED SEDIMENT, FILTER SOCKS AND MEDIA SHALL BE REPLACED OR CLEANED TO RESTORE THE ORIGINAL INSTALLATION FUNCTION.
6.

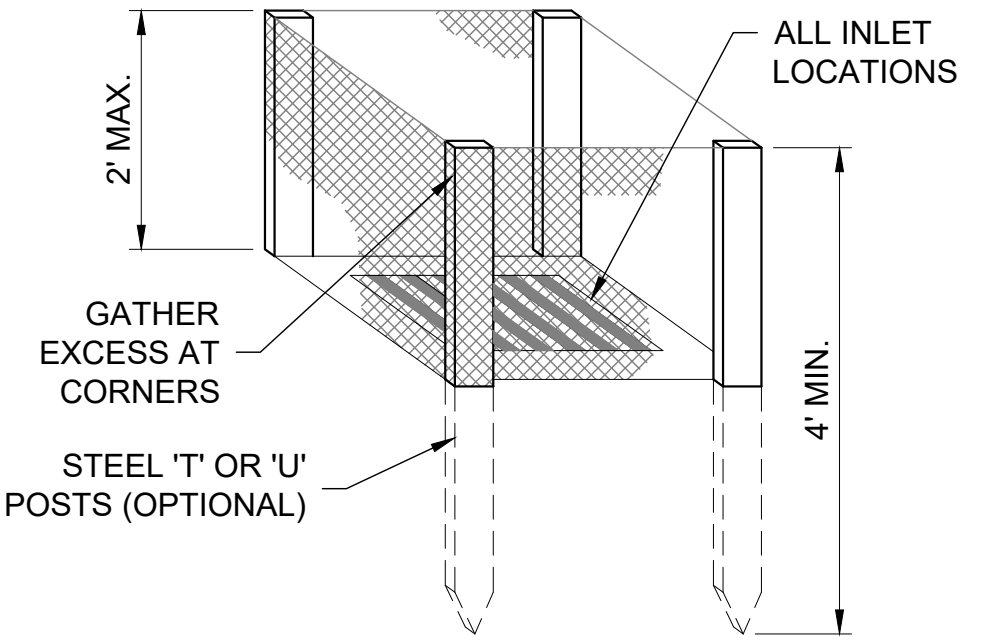
STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY.
7.

ONCE THE CONTRIBUTING DRAINAGE AREA TO EACH STRUCTURE IS STABILIZED, THE INLET PROTECTION SHALL BE REMOVED.

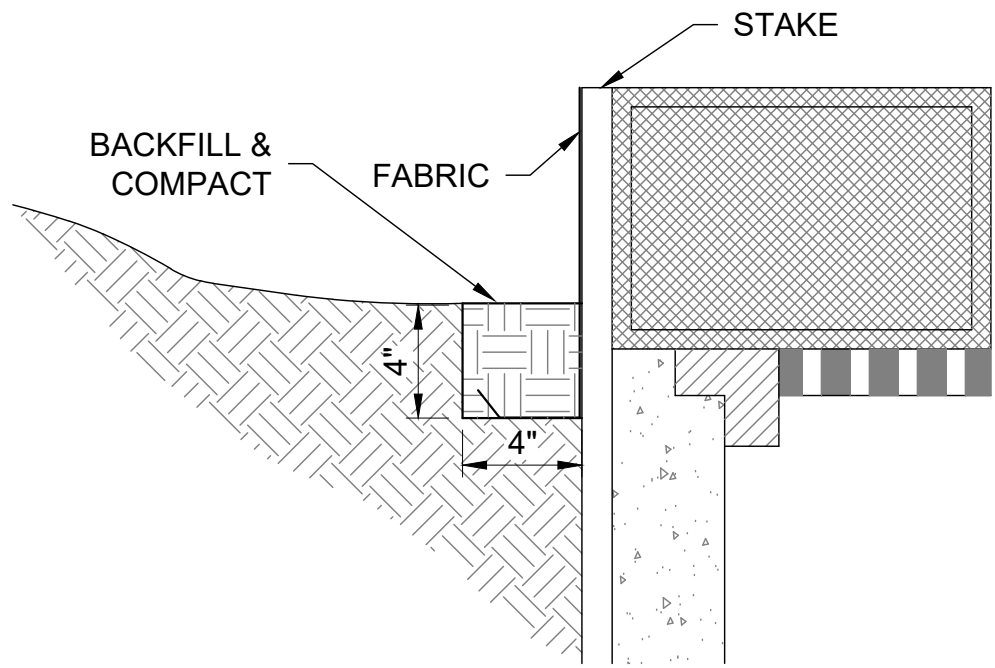
1

CURB INLET PROTECTION

SCALE: N.T.S.



PERSPECTIVE VIEW

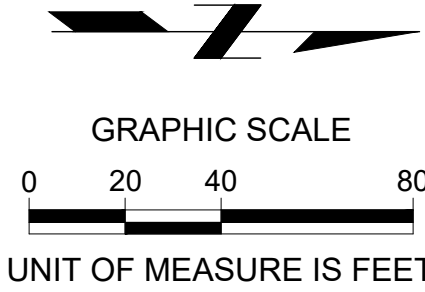


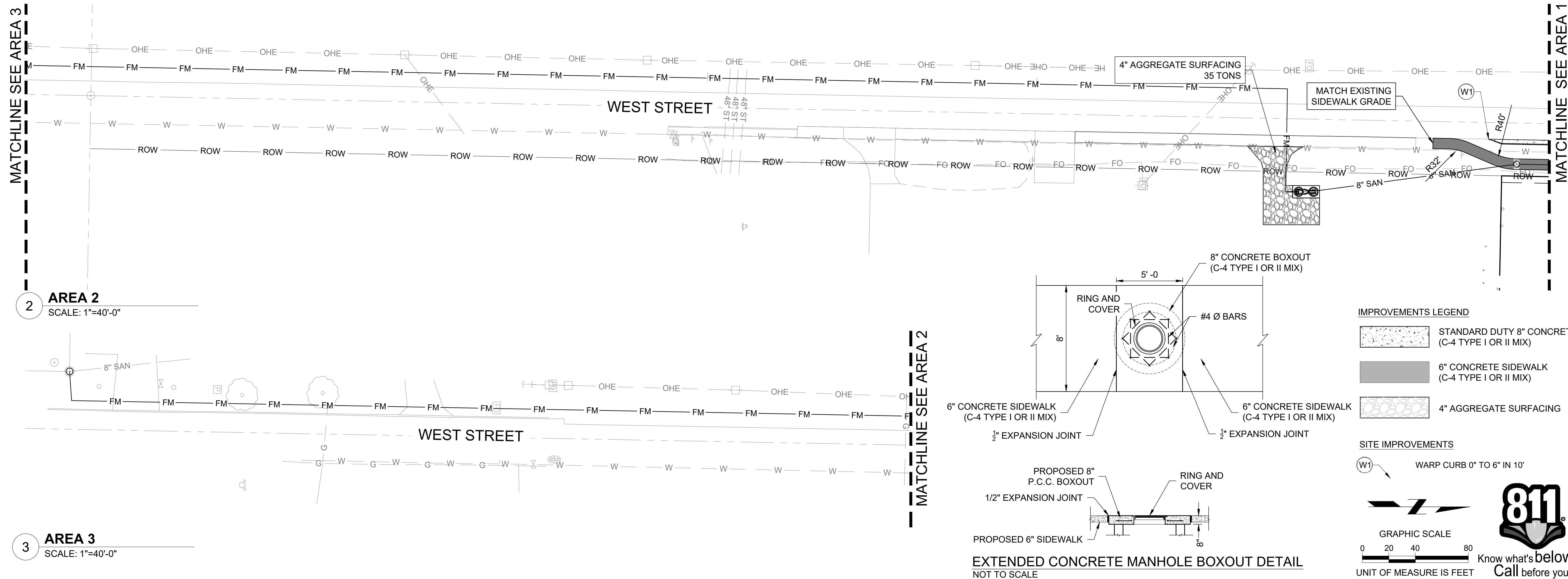
ELEVATION

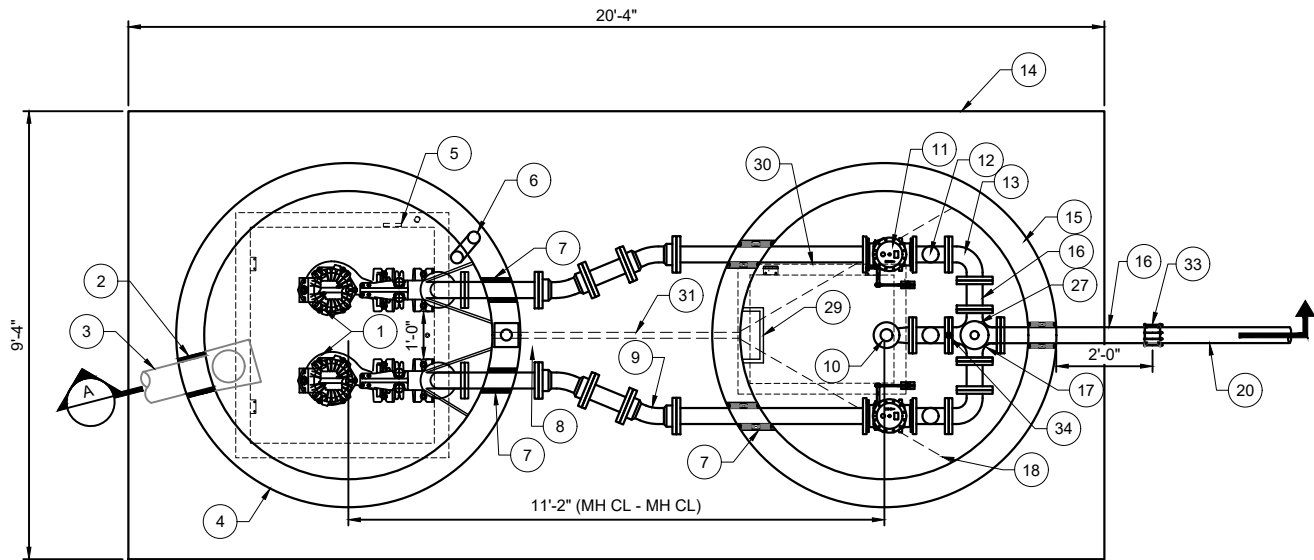
2

SILT FENCE AREA INLET PROTECTION

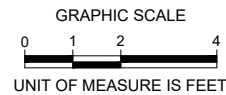
SCALE: N.T.S.







1 WET WELL PLAN VIEW
SCALE: AS SHOWN

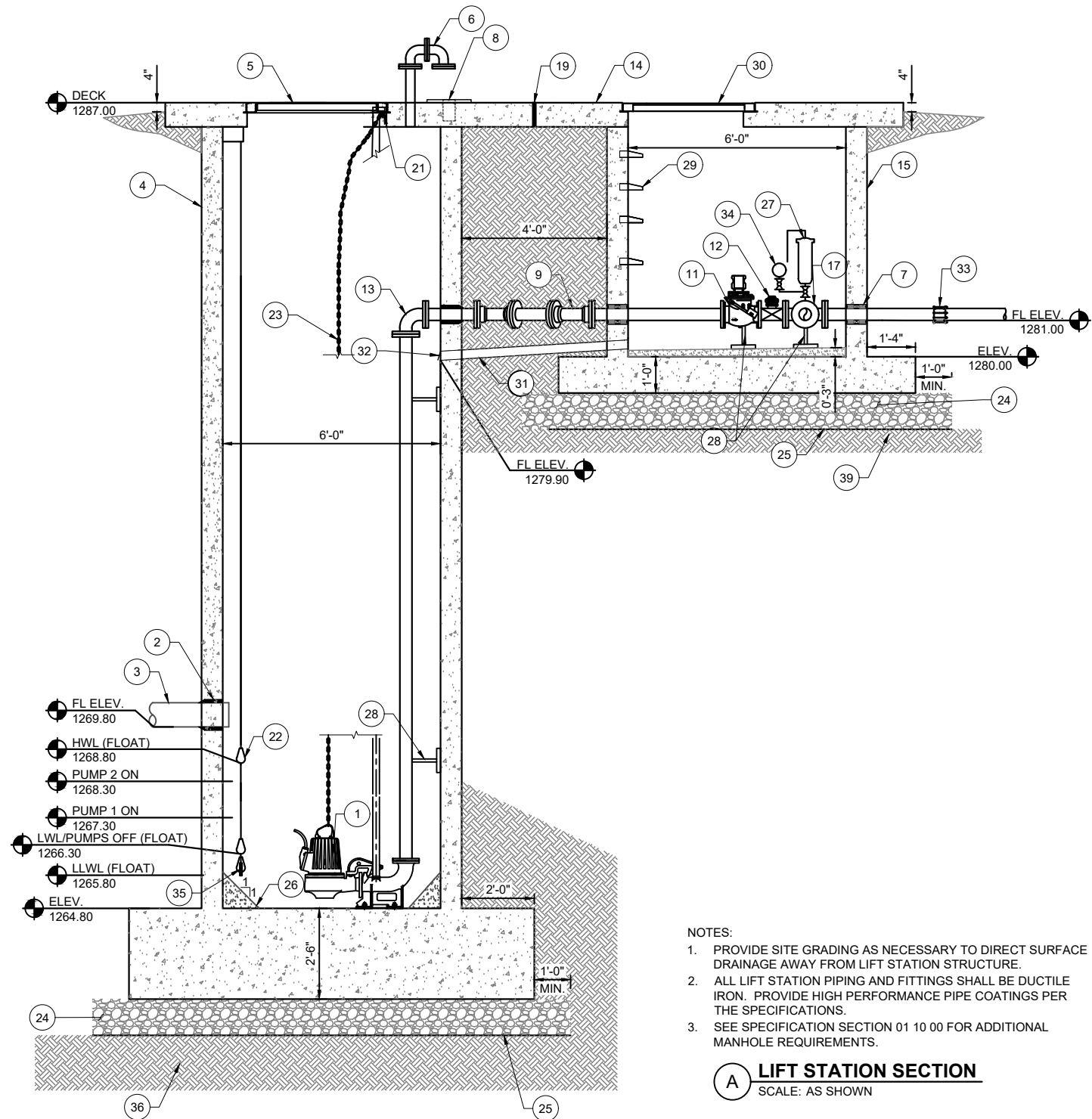


KEYNOTE

- 1 TWO (2) SUBMERSIBLE CHOPPER PUMPS, BASE BENDS, & GUIDE RAILS, SEE SPECIFICATIONS
- 2 MANUFACTURER INSTALLED BOOT CONNECTION, (TYP.)
- 3 8" SDR 26 PVC SANITARY SEWER MAIN, TRIM PIPE SO THAT IT PROTRUDES 1"-2" INSIDE THE MANHOLE
- 4 72" DIA. PRE-CAST MANHOLE, WITH PRECAST BASE OR CAST IN PLACE CONCRETE BASE W/ #6 BARS @ 8" O.C. E.W., TOP AND BOTTOM, 90° BY 1'-6" RETURN BEND AT EDGES
- 5 WET WELL ACCESS HATCH, SEE DETAIL 1/U.02
- 6 3" D.I.P. VENT, WITH EPOXY COATING (ROTATED FOR CLARITY IN SECTION), W/ S.S. #24 MESH OVER END SEE DETAIL 4/U.02
- 7 LINK SEAL & GROUT, (TYP.)
- 8 DAVIT CRANE FLUSH/SOCKET MOUNT BASE, POSITION TO LIFT BOTH PUMPS (COORDINATE WITH FIELD ENGINEER)
- 9 4" D.I. MJ 22.5° BEND, WITH MECHANICAL JOINT RESTRAINT DEVICES (TYP.)
- 10 4"x3" D.I. FL 90° BEND UP, WITH A 3" MALE QUICK COUPLER AND CAP
- 11 4" FL CHECK VALVE WEIGHT & LEVER STYLE, SEE SPECIFICATIONS (TYP.)
- 12 4" FL GATE VALVE WITH HANDWHEEL OPERATOR (TYP.)
- 13 4" D.I. FL 90° BEND (TYP.)
- 14 CAST IN PLACE MANHOLE DECK W/ INTEGRAL HATCHES, SEE DETAIL 6/U.02
- 15 72" DIA. PRE-CAST MANHOLE WITH PRECAST BASE
- 16 4" D.I. FL SPOOL (TYP.)
- 17 4" D.I. FL CROSS
- 18 GROUT SLOPE FROM EDGES OF MANHOLE TO 3" DRAIN PIPE AT LOCATION SHOWN
- 19 1/2" EXPANSION JOINT

KEYNOTE

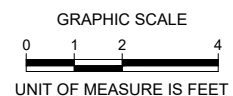
- 20 4" PVC, DR 14 FORCE MAIN
- 21 S.S. BRACKET TO SECURE LIFTING CABLES AND ELECTRICAL CONTROL & POWER CABLES
- 22 INTRINSICALLY SAFE MERCURY FLOAT (TYP. OF 5)
- 23 STAINLESS STEEL LIFTING CHAIN COMPLETE TO HATCH
- 24 3/4" CLEAN ROCK AGGREGATE BEDDING FROM BOTTOM OF EXCAVATION TO MANHOLE BASE (1'-0" MIN.)
- 25 WOVEN FILTER FABRIC, MIRAFI HP570 OR EQUAL
- 26 GROUT FILLET
- 27 AIR RELEASE VALVE ASSEMBLY
- 28 STAINLESS STEEL PIPE SUPPORT (TYP.)
- 29 MANHOLE STEPS @ 16" O.C.
- 30 VALVE VAULT ACCESS HATCH, SEE DETAIL 2/U.02
- 31 3" DUCTILE IRON DRAIN PIPE
- 32 3" FLAP VALVE
- 33 BOLTED FLEX COUPLING
- 34 PRESSURE GAUGE ASSEMBLY, SEE DETAIL 3/U.02
- 35 SUBMERSIBLE TRANSDUCER, SEE SPECIFICATIONS
- 36 COMPACTED SUBGRADE, PER GEOTECHNICAL REPORT



NOTES:

1. PROVIDE SITE GRADING AS NECESSARY TO DIRECT SURFACE DRAINAGE AWAY FROM LIFT STATION STRUCTURE.
2. ALL LIFT STATION PIPING AND FITTINGS SHALL BE DUCTILE IRON. PROVIDE HIGH PERFORMANCE PIPE COATINGS PER THE SPECIFICATIONS.
3. SEE SPECIFICATION SECTION 01 10 00 FOR ADDITIONAL MANHOLE REQUIREMENTS.

A LIFT STATION SECTION
SCALE: AS SHOWN



Know what's below.
Call before you dig.

WEST GOLFVIEW SUBDIVISION
CARROLL, IOWA

LIFT STATION
(BASE BID)

PROJECT NO.	PROJECT NO.
DATE	8/3/2026
DRAWN BY	NJD
FILE NAME	S-231132-LS.dwg
FIELD BOOK	
FIELD CREW	
SURVEY FILE NO.	
PLAN IN HAND	PIH INI
INITIALS	DATE
DATE	PIH DATE
70 PERCENT REVIEW	70% INI
INITIALS	DATE
DATE	70% DATE
95 PERCENT REVIEW	95% INI
INITIALS	DATE
DATE	95% DATE
REVISIONS	

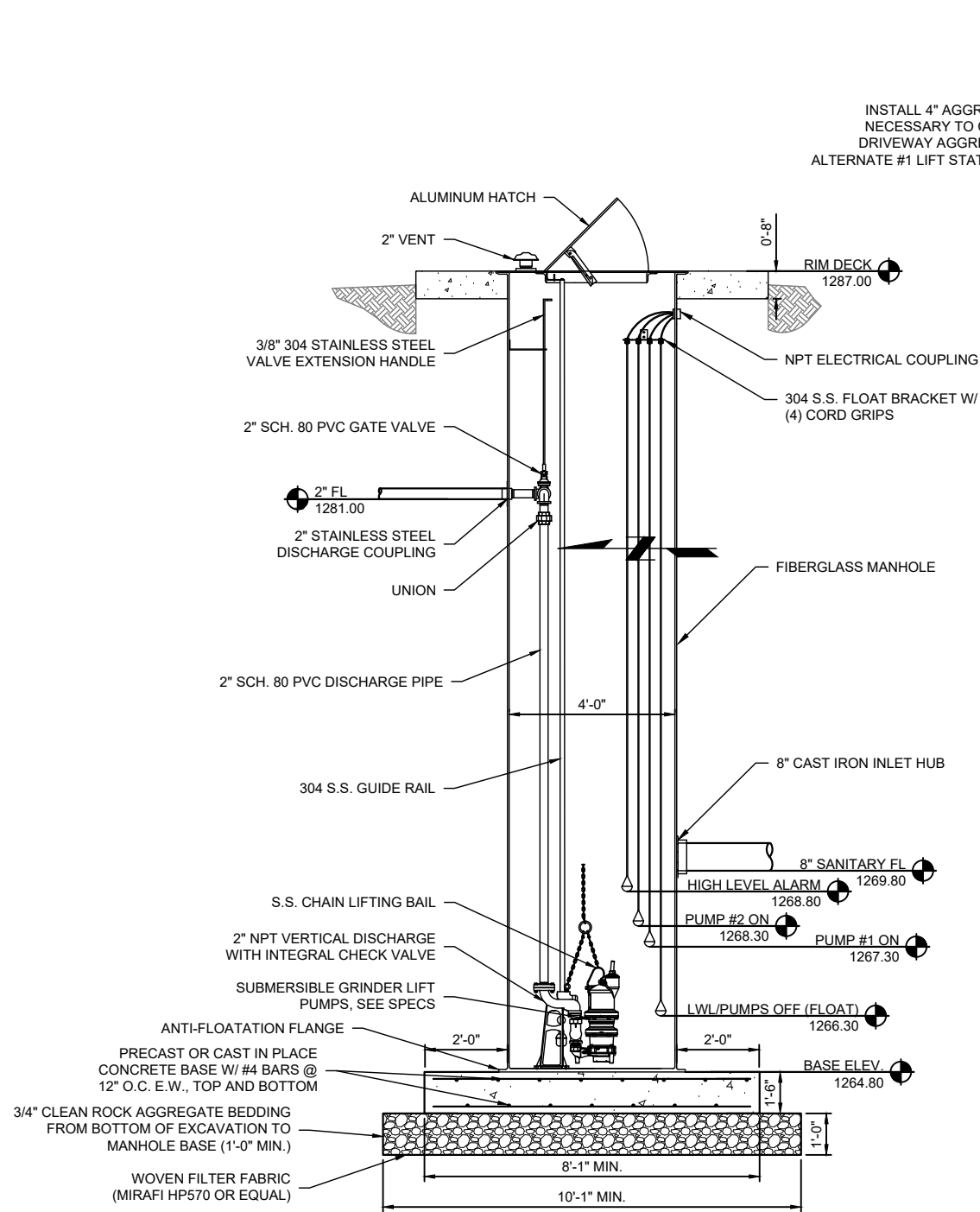
U.01

PROJECT NO.	PROJECT NO.
DATE	8/3/2026
DRAWN BY	NJD
FILE NAME	S-231132-LS.dwg
FIELD BOOK	
FIELD CREW	
SURVEY FILE NO.	
PLAN IN HAND	PIH INI
DATE	PIH DATE
70 PERCENT REVIEW	70% INI
DATE	70% DATE
95 PERCENT REVIEW	95% INI
DATE	95% DATE
REVISIONS	



Know what's below.
Call before you dig.

U.01.ALT

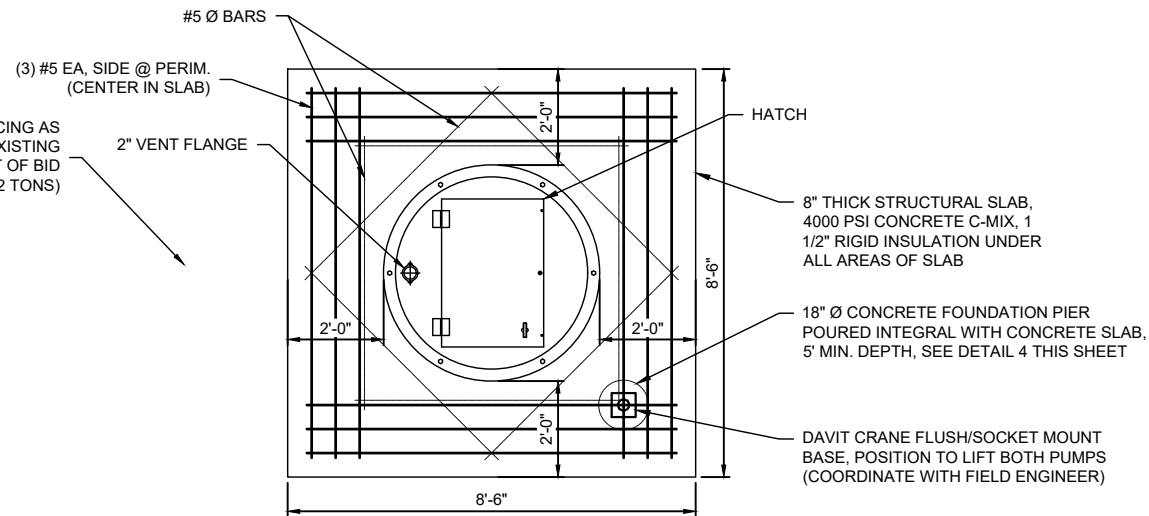


2 LIFT STATION PLAN VIEW SECTION
SCALE: AS SHOWN

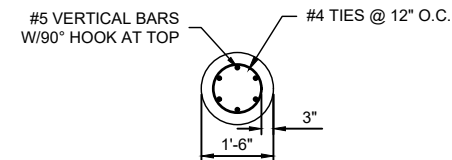
NOTES:

1. PROVIDE SITE GRADING AS NECESSARY TO DIRECT SURFACE DRAINAGE AWAY FROM LIFT STATION STRUCTURE.
2. SEE SPECIFICATION SECTION 01 10 00 FOR ADDITIONAL FIBERGLASS MANHOLE REQUIREMENTS.
3. BID ALTERNATE #1 SHALL INCLUDE THE FOLLOWING CHANGES TO THE CONTRACT DOCUMENTS:
 - a. THE PROPOSED LIFT STATION SHALL CHANGE FROM THE BASE BID LIFT STATION TO THE BID ALTERNATE LIFT STATION.
 - b. ALL 4" FORCE MAIN AND FITTINGS SHALL BE CHANGED TO 2" HPDE FORCE MAIN AND FITTINGS.
 - c. THE STEEL CASING FOR THE UNDERCROSSING OF THE THREE (3) 48" STORM SEWERS FROM STA. 22+33 TO STA. 22+58 ON SHEET M.03 SHALL NOT BE REQUIRED.

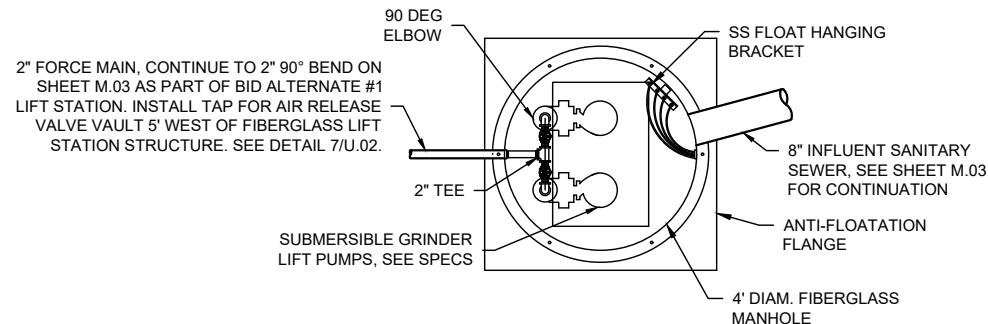
INSTALL 4" AGGREGATE SURFACING AS NECESSARY TO CONNECT TO EXISTING DRIVEWAY AGGREGATE AS PART OF BID ALTERNATE #1 LIFT STATION (APPROX. 2 TONS)



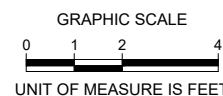
1 LIFT STATION PLAN VIEW (EXTERIOR)
SCALE: AS SHOWN



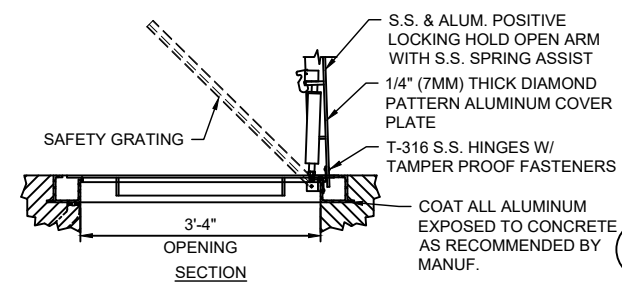
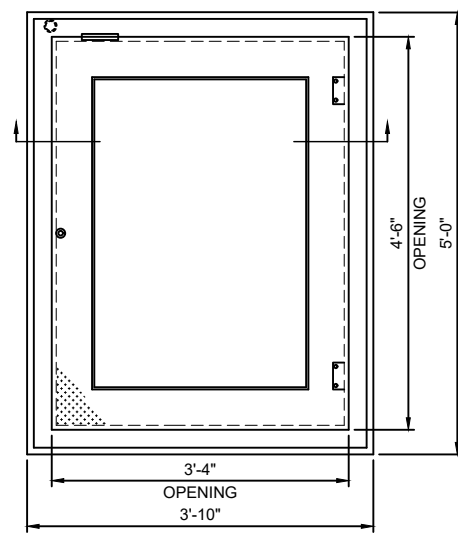
4 CONCRETE FOUNDATION PIER
SCALE: AS SHOWN



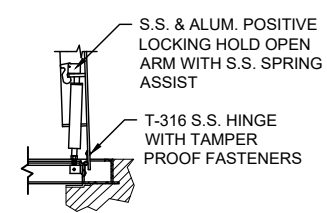
3 LIFT STATION PLAN VIEW (INTERIOR)
SCALE: AS SHOWN



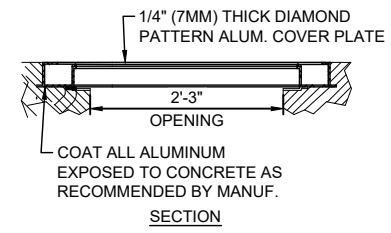
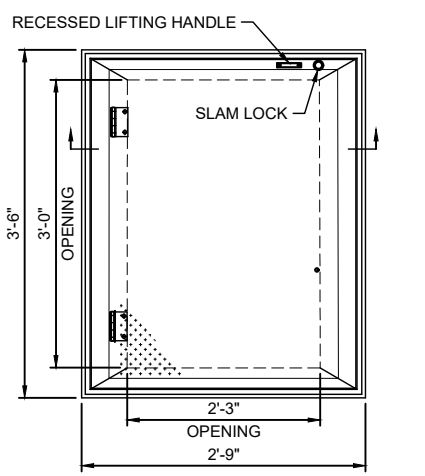
PROJECT NO.	PROJECT NO.
DATE	8/3/2026
DRAWN BY	NJD
FILE NAME	S-231132-LS.dwg
FIELD BOOK	
FIELD CREW	
SURVEY FILE NO.	
PLAN IN HAND	PIH INI
INITIALS	DATE
70 PERCENT REVIEW	70% INI
INITIALS	DATE
95 PERCENT REVIEW	95% INI
INITIALS	DATE
REVISIONS	95% DATE



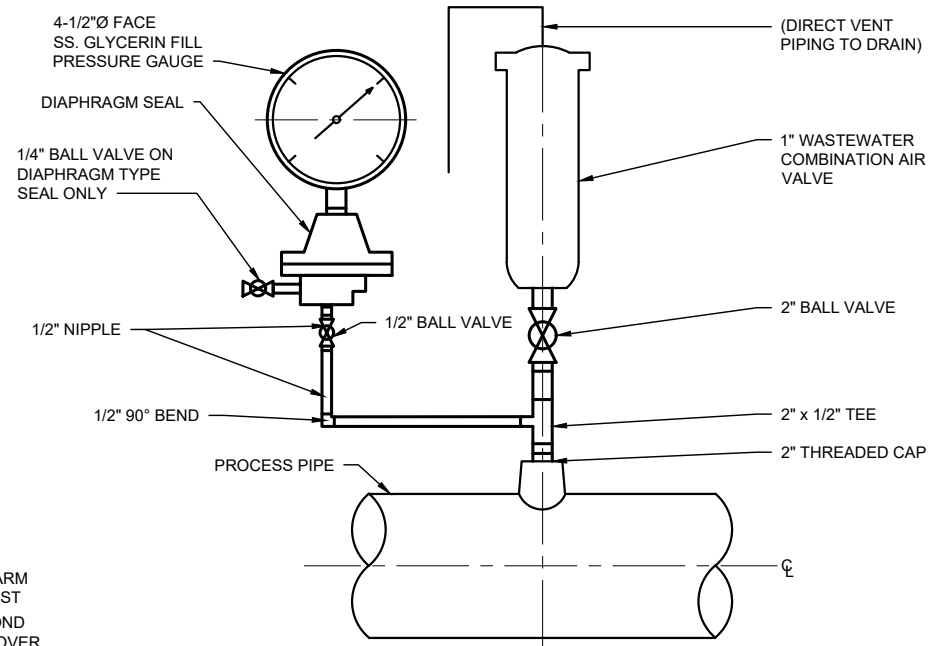
1 **WET WELL ACCESS HATCH (BASE BID)**
SCALE: N.T.S.



COVER DETAIL (SHOWN IN OPEN POSITION)

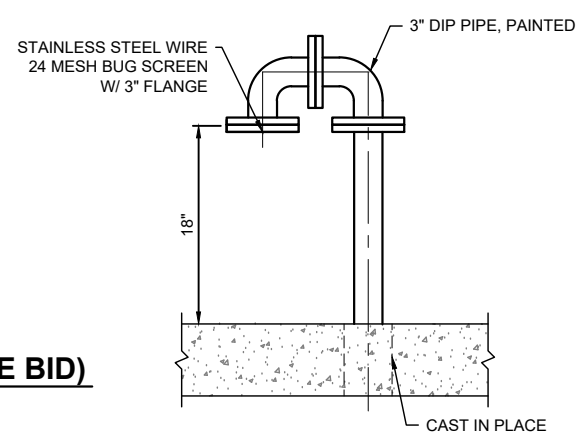


2 **VALVE VAULT ACCESS HATCH (BASE BID)**
SCALE: N.T.S.

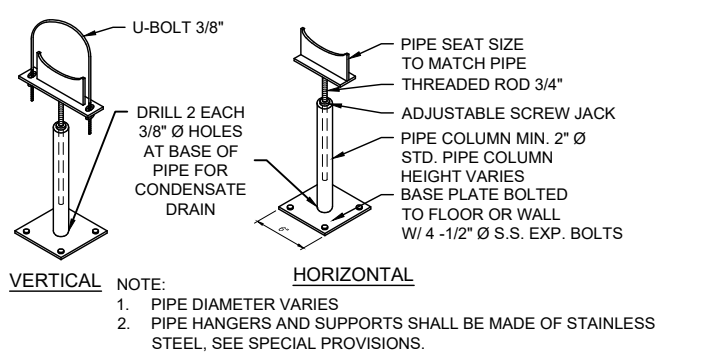
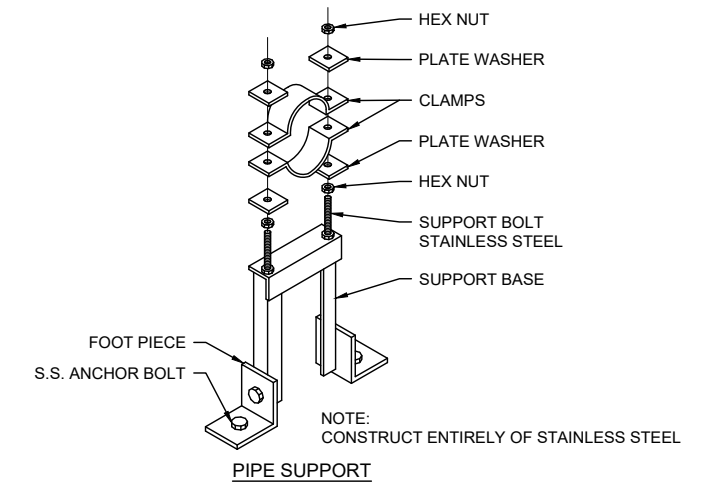


NOTES:
1. ALL PIPING, FITTINGS, AND VALVES INCLUDED IN THE PRESSURE GAUGE ASSEMBLY AND AIR RELEASE VALVE ASSEMBLY SHALL BE MADE OF STAINLESS STEEL, UNLESS OTHERWISE NOTED.

3 **PRESSURE GAUGE & AIR RELEASE VALVE ASSEMBLY (BASE BID)**
SCALE: NTS



4 **VENT PIPE (BASE BID)**
SCALE: N.T.S.

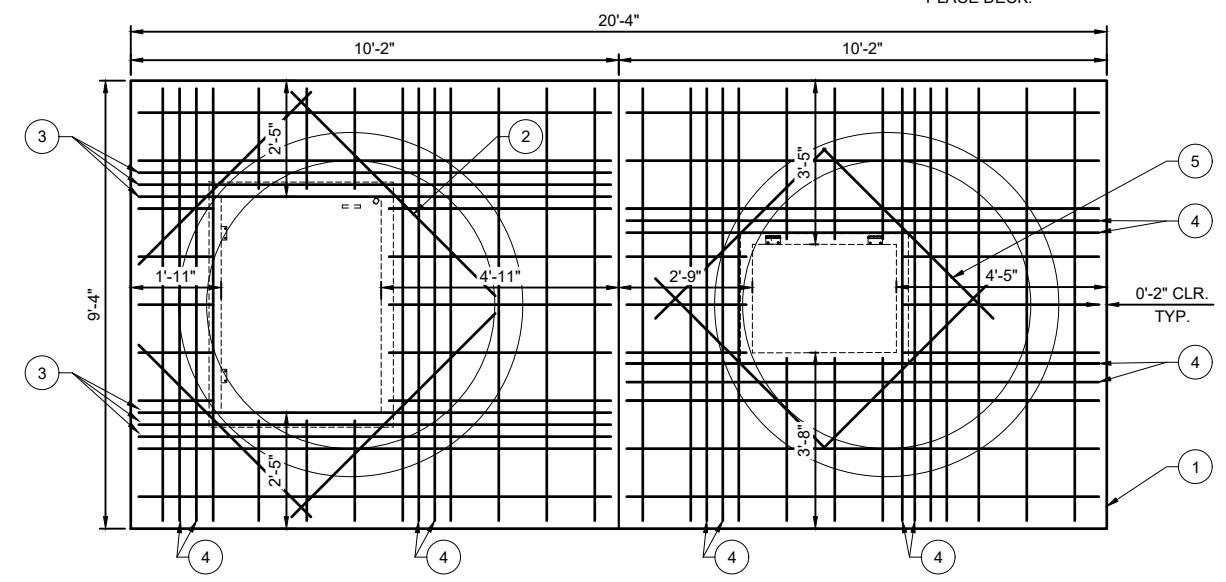


5 **PIPE SUPPORTS (BASE BID)**
SCALE: N.T.S.

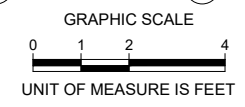
DECK PLAN KEYNOTE

- 8" THICK STRUCTURAL SLAB, 4000 PSI CONCRETE, #4 BARS @ 12" O.C. TOP & BOTTOM, EACH WAY (TYP.)
- ADDITIONAL (4) #4 BARS 6'-0" LONG, 45° ANGLE
- ADDITIONAL (3) #4 BARS @ 4" O.C. TOP & BOTTOM
- ADDITIONAL (2) #4 BARS @ 4" O.C. TOP & BOTTOM
- ADDITIONAL (4) #4 BARS 5'-0" LONG, 45° ANGLE

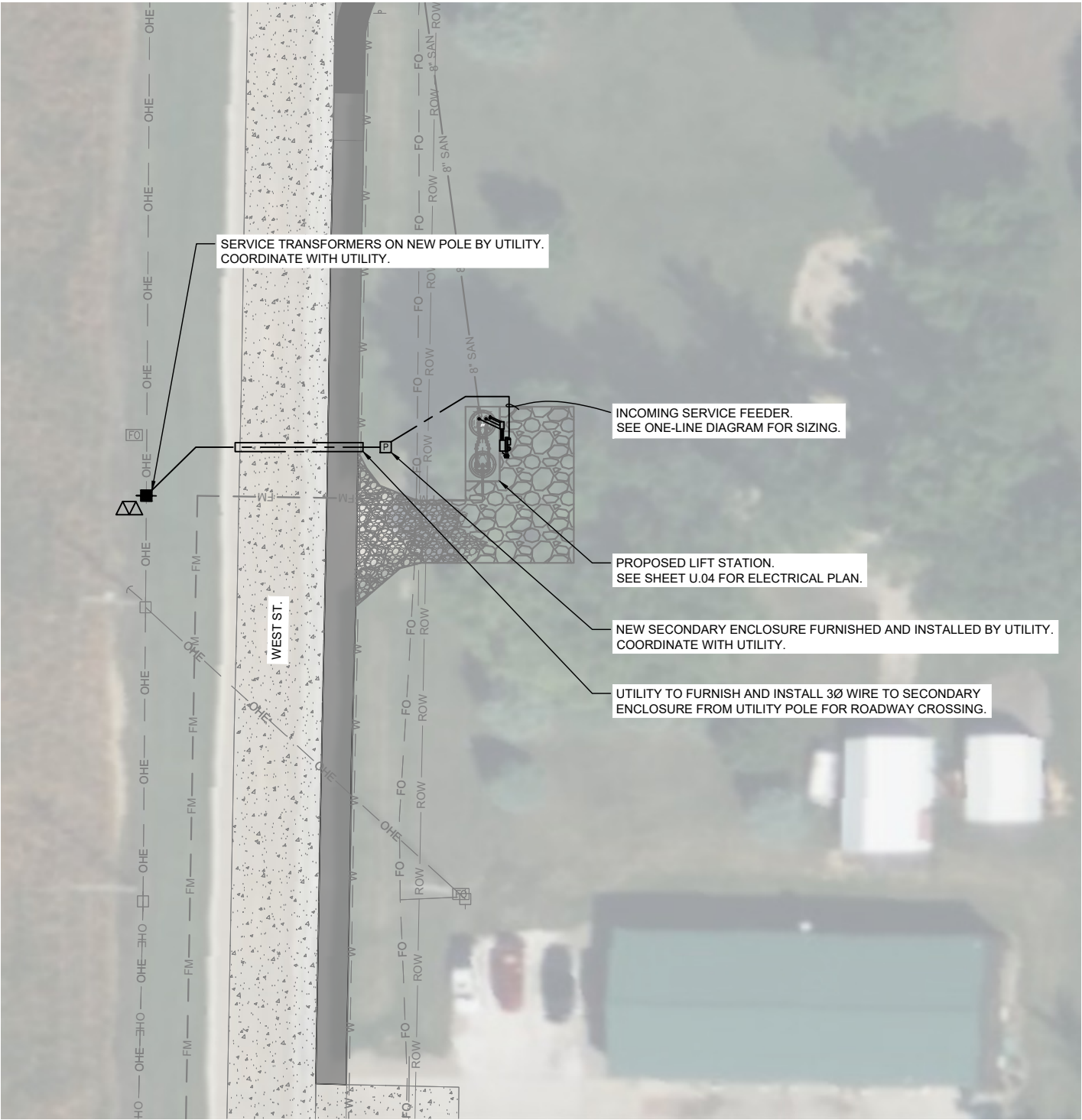
NOTE:
CONTRACTOR MAY PROVIDE PRECAST DECK WITH INTEGRAL HATCH IN LIEU OF SHOWN CAST IN PLACE DECK.



6 **DECK PLAN (BASE BID)**
SCALE: AS SHOWN

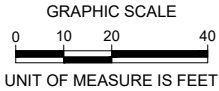


ELECTRICAL SYMBOLS AND ABBREVIATIONS							
SYMBOL		DESCRIPTION		SYMBOL		DESCRIPTION	
		FLUORESCENT FIXTURE (X)=TYPE				PHOTO CELL	
		FLUORESCENT FIXTURE, WALL MOUNT (X)=TYPE				SINGLE RECEPTACLE	
		WALL LIGHT (X)=TYPE				DUPLEX RECEPTACLE	
		NIGHT LIGHT (X)=TYPE				GROUND FAULT RECEPTACLE	
		CEILING LIGHT (X)=TYPE				CEILING RECEPTACLE	
		WALL WASH LIGHT (X)=TYPE				RANGE RECEPTACLE	
		TRACK LIGHTING FIXTURE (X)=TYPE				HORIZONTALLY MOUNTED DUPLEX RECEPTACLE	
		FIXTURE ON EMERGENCY CIRCUIT (X)=TYPE				FOUR PLEX RECEPTACLE	
		EMERGENCY LIGHT FIXTURE (X)=TYPE				SPECIAL RECEPTACLE	
		EXIT SIGN (X)=TYPE				SPLIT DUPLEX RECEPTACLE	
		EXIT LIGHT WALL MOUNTED (X)=TYPE				TAMPER-PROOF DUPLEX RECEPTACLE	
		COMBINED EMERGENCY & EXIT LIGHT FIXTURE (X)=TYPE				TVSS DUPLEX	
						TWO GANG FLOOR BOX, POWER & TELEPHONE	
						SINGLE GANG FLOOR BOX, POWER	
		SURFACE RACEWAY				J-BOX FLOOR BOX, POWER	
		PLUGMOLD				JUNCTION BOX	
		BUZZER				CLOCK CEILING MOUNT	
		CHIME				CLOCK OUTLET	
		PROGRAM BELL					
		MONITOR					
		TIME CLOCK				TELEPHONE FLOOR BOX	
		TIME SWITCH				COMPUTER OUTLET FLOOR	
		CONTACTOR				COMBINATION TELE. & COMPUTER OUTLET FLOOR	
		MOTOR WITH HORSEPOWER AS REQUIRED				COMPUTER OUTLET WALL	
		CIRCUIT BREAKER OR FUSIBLE DISCONNECT				COMBINATION TELE. & COMPUTER OUTLET	
		NON-FUSIBLE DISCONNECT				TELEPHONE OUTLET WALL	
		MOTOR STARTER				INTERCOM OUTLET	
		COMBINATION MOTOR STARTER & DISCONNECT				SPEAKER OUTLET CEILING	
		VARIABLE FREQUENCY DRIVE				SPEAKER OUTLET WALL	
		THERMOSTAT				TELEVISION OUTLET	
		LIGHTING PANEL				VOLUME CONTROL, SOUND(POWER)	
		POWER PANEL					
		TRANSFORMER				SPST POLE SWITCH	
		TELEPHONE PANEL BOARD				3-WAY SWITCH	
		WIRING IN CONDUIT, CONCEALED				4-WAY SWITCH	
		WIRING IN CONDUIT, EXPOSED				SWITCH w/PILOT LIGHT	
		WIRING IN CONDUIT, CONCEALED IN FLOOR				DIMMER SWITCH	
		HOME RUN- NO. ARROWS=NO. CIRCUITS				SWITCH FOR DARK ROOM SAFE LIGHT & WHITE LIGHT	
		FIRE ALARM SYSTEM CONDUIT				KEY SWITCH	
		SOUND SYSTEM CONDUIT				REMOTE CONTROL SWITCH	
		DENOTES GROUND FAULT				FAN SPEED CONTROL	
		DENOTES EXPLOSION PROOF				THERMAL SWITCH	
		DENOTES WEATHER PROOF				MOMENTARY CONTACT SWITCH	
		PEDESTAL				OCCUPANCY SENSOR SWITCH	
						KEY PAD	
						PUSH-BUTTON	
						PUSH-BUTTON START/STOP	
						SELECTOR SWITCH HAND/OFF	
TYPICAL MOUNTING HEIGHTS							
ITEM	HEIGHT (A.F.F.)	ITEM	HEIGHT (A.F.F.)	ITEM	HEIGHT (A.F.F.)		
RECEPTACLES	18"	FIRE ALARM MASTER PANEL	60" TO TOP	TELEPHONE OUTLETS	18"		
SWITCHES	48"	FIRE ALARM MANUAL	48"	TELEPHONE/DATA OUTLETS	18"		
THERMOSTATS	48"	FIRE ALARM HORN/STROBE	80"	TELEVISION OUTLETS	18"		
PANELBOARDS	72" TO TOP	FIRE ALARM CHIME	80"	DISCONNECTS	60"		
CABINETS	72" TO TOP	FIRE ALARM STROBE LIGHT	80"	DATA OUTLETS	18"		
HEIGHTS ARE TO CENTER LINE UNLESS NOTED OTHERWISE							



ELECTRICAL UTILITY PLAN
SCALE: SEE GRAPHIC SCALE

INSTRUCTIONS TO BIDDERS:
1. THE ELECTRICAL WORK SHOWN ON THIS SHEET SHALL APPLY TO BOTH THE BASE BID AND ALTERNATE BID.



PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

ELECTRICAL UTILITY PLAN

PROJECT NO.	231132.00
DATE	8/4/2026
DRAWN BY	AWB
FILE NAME	S-231132_ELEC.dwg
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	231132 SITE TOPO.dwg
PLAN IN HAND	---
INITIALS	---
DATE	---
70 PERCENT REVIEW	JTS
INITIALS	---
DATE	3/13/24
95 PERCENT REVIEW	JTS
INITIALS	---
DATE	5/14/24
REVISIONS	---

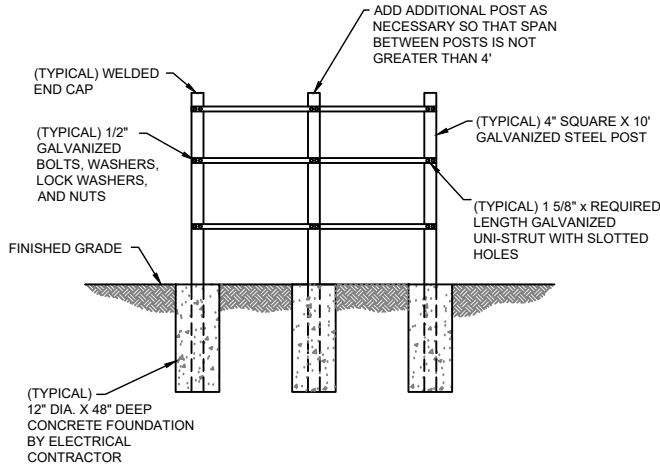


CORROSIVE ENVIRONMENTS:

1. ALL ELECTRICAL WORK IN THE VALVE VAULT AND WET WELL SHALL BE CONSIDERED CORROSIVE.

CLASSIFICATION OF HAZARDOUS LOCATIONS:

1. ALL ELECTRICAL WORK IN LIFT STATION WET WELL SHALL BE CLASS I DIVISION 1, GROUP D EXPLOSION PROOF.
2. ALL ELECTRICAL WORK UP TO 18" ABOVE GRADE WITHIN 3' OF ANY OPENINGS IN WET WELL SHALL BE CLASS I DIVISION 2, GROUP D EXPLOSION PROOF.
3. ALL ELECTRICAL WORK WITHIN A 36" RADIUS OF ANY VENT EXTENDING FROM THE WET WELL SHALL BE CLASS I DIVISION 1, GROUP D EXPLOSION PROOF.
4. ALL ELECTRICAL WORK BETWEEN A 36" RADIUS AND 60" RADIUS FROM ANY VENT EXTENDING FROM THE WET WELL SHALL BE CLASS I DIVISION 2, GROUP D EXPLOSION PROOF.
5. ALL ELECTRICAL WORK WITHIN THE VALVE VAULT SHALL BE CLASS I DIVISION 2, GROUP D EXPLOSION PROOF.
6. ALL ELECTRICAL WORK WITHIN A 36" RADIUS OF ANY VENT EXTENDING FROM THE VALVE VAULT SHALL BE CLASS I DIVISION 2, GROUP D EXPLOSION PROOF.
7. ALL ELECTRICAL WORK OUTSIDE OF THESE AREAS IS ORDINARY/UNCLASSIFIED.

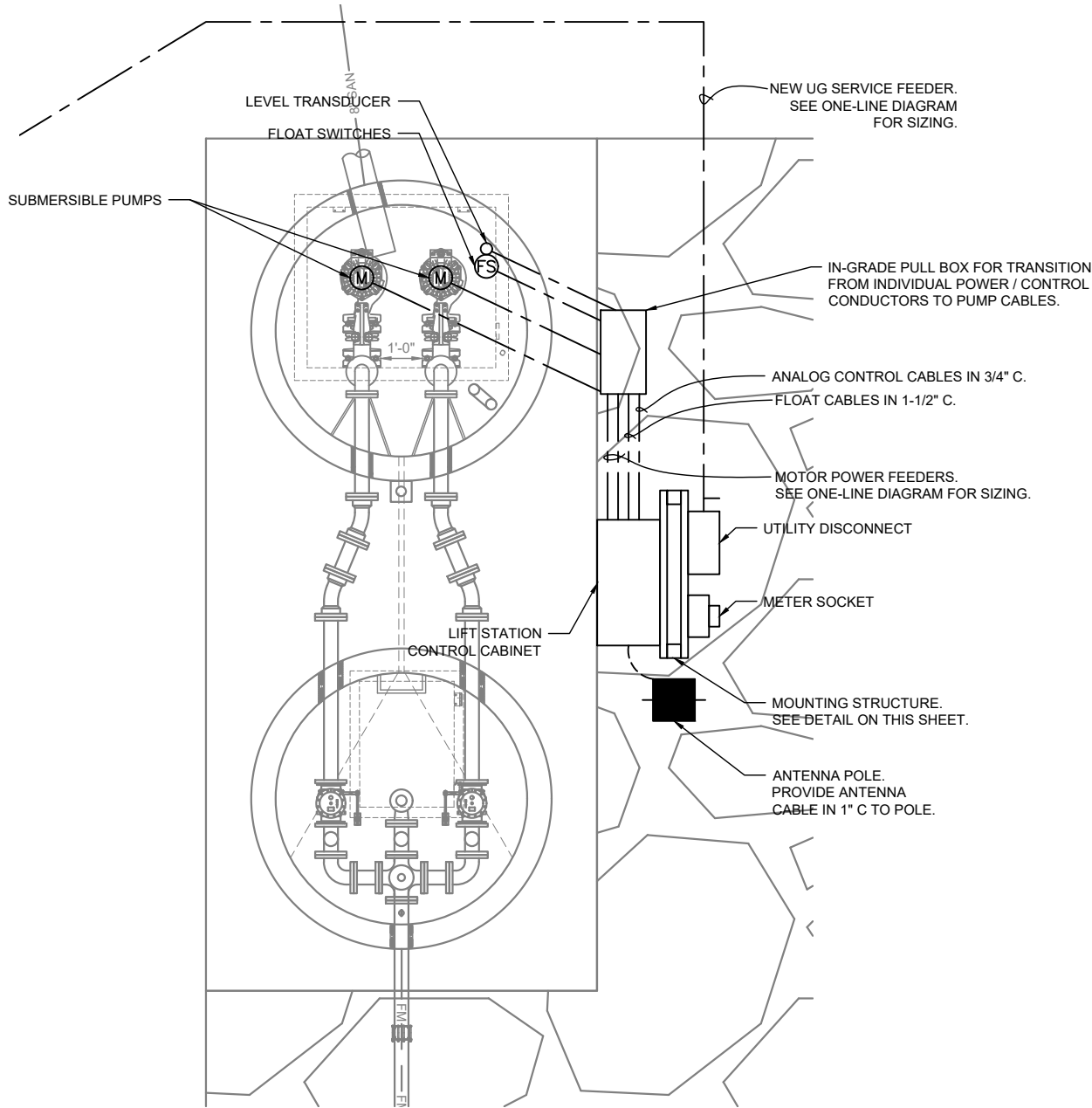
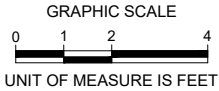


MOUNTING STRUCTURE DETAIL

SCALE: NO SCALE

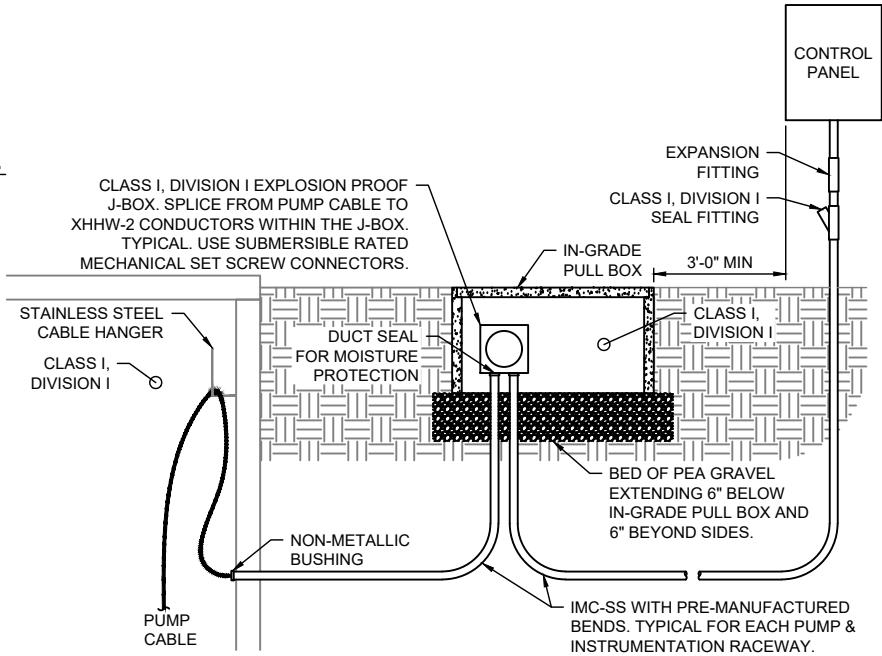
INSTRUCTIONS TO BIDDERS:

1. THE CORROSIVE ENVIRONMENT, HAZARDOUS LOCATION NOTES, AND MOUNTING STRUCTURE DETAIL SHOWN ON THIS SHEET SHALL APPLY TO BOTH THE BASE BID AND ALTERNATE BID.
2. THE ELECTRICAL EQUIPMENT SHOWN IN ELECTRICAL PLAN ON THIS SHEET SHALL APPLY ONLY TO THE BASE BID. SEE SHEET U.07 FOR ELECTRICAL EQUIPMENT ASSOCIATED WITH THE BID ALTERNATE. ALL INCOMING AND OUTGOING CIRCUITS SHALL REMAIN THE SAME, EXCEPT FOR THE REMOVAL OF THE LEVEL SENSOR AND IN-GRADE PULL BOX IN THE BID ALTERNATE.
3. THE LIFT STATION WIRING METHODS DETAIL AND CONTROL CABINET DETAIL SHALL ONLY APPLY TO THE BASE BID.



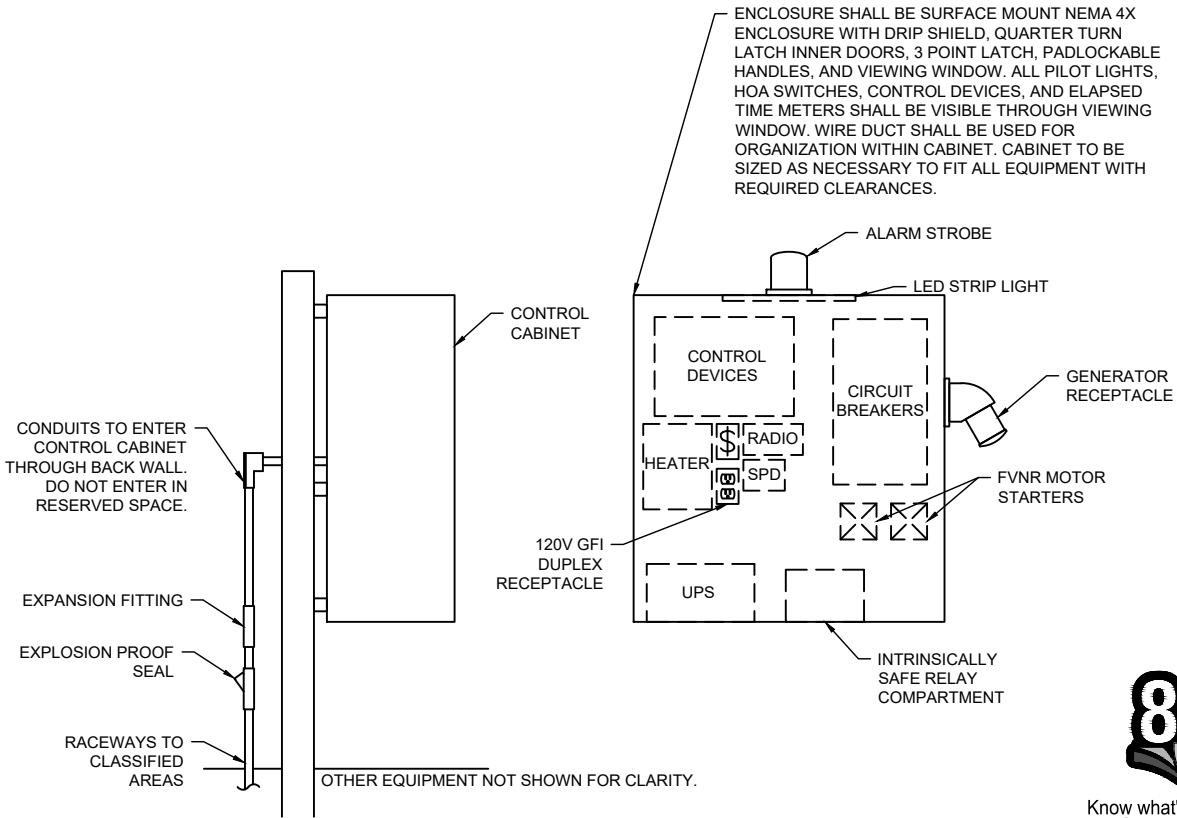
ELECTRICAL PLAN

SCALE: SEE GRAPHIC SCALE



LIFT STATION WIRING METHODS DETAIL

SCALE: NOT TO SCALE



CONTROL CABINET DETAIL

SCALE: NOT TO SCALE

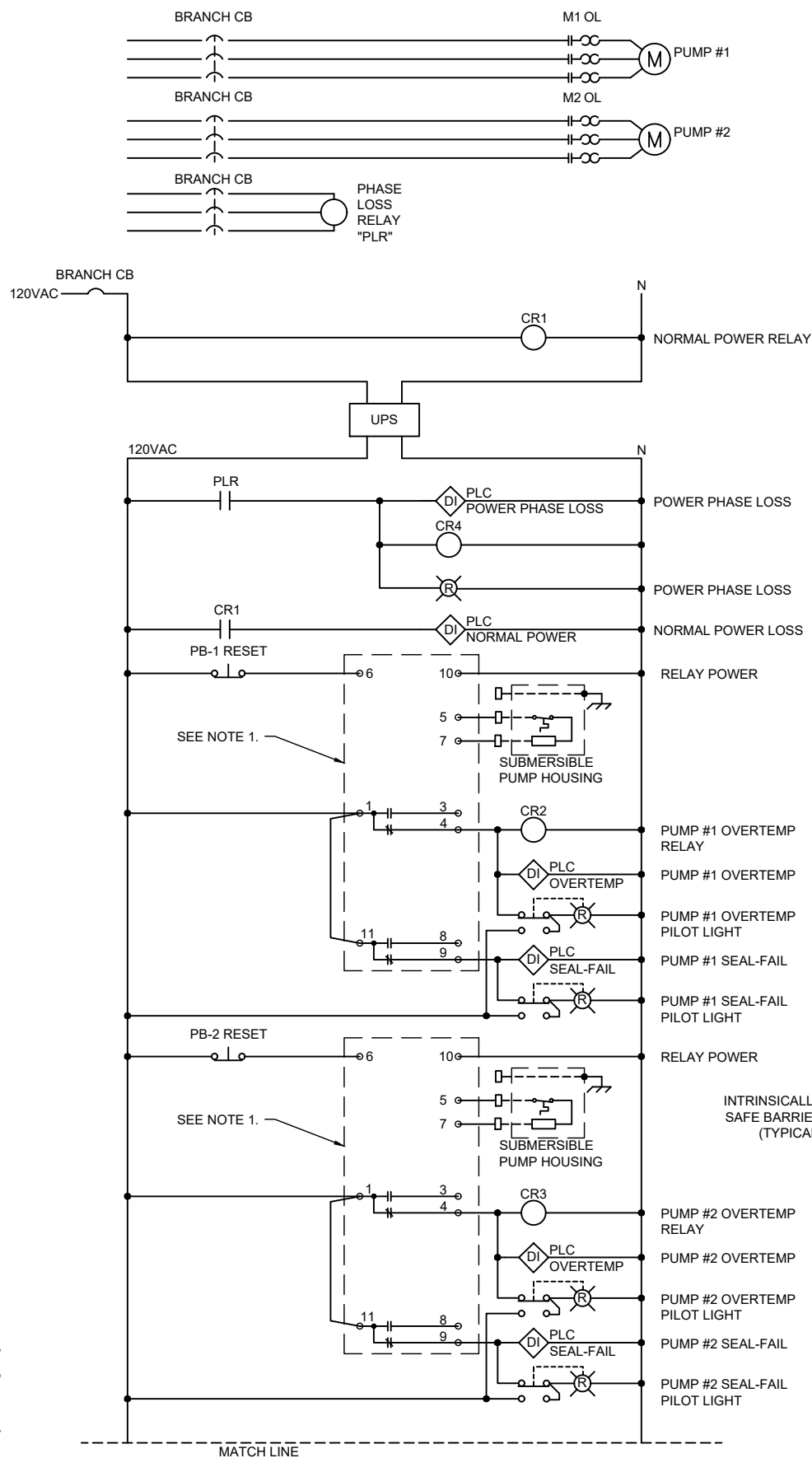


PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

ELECTRICAL PLAN

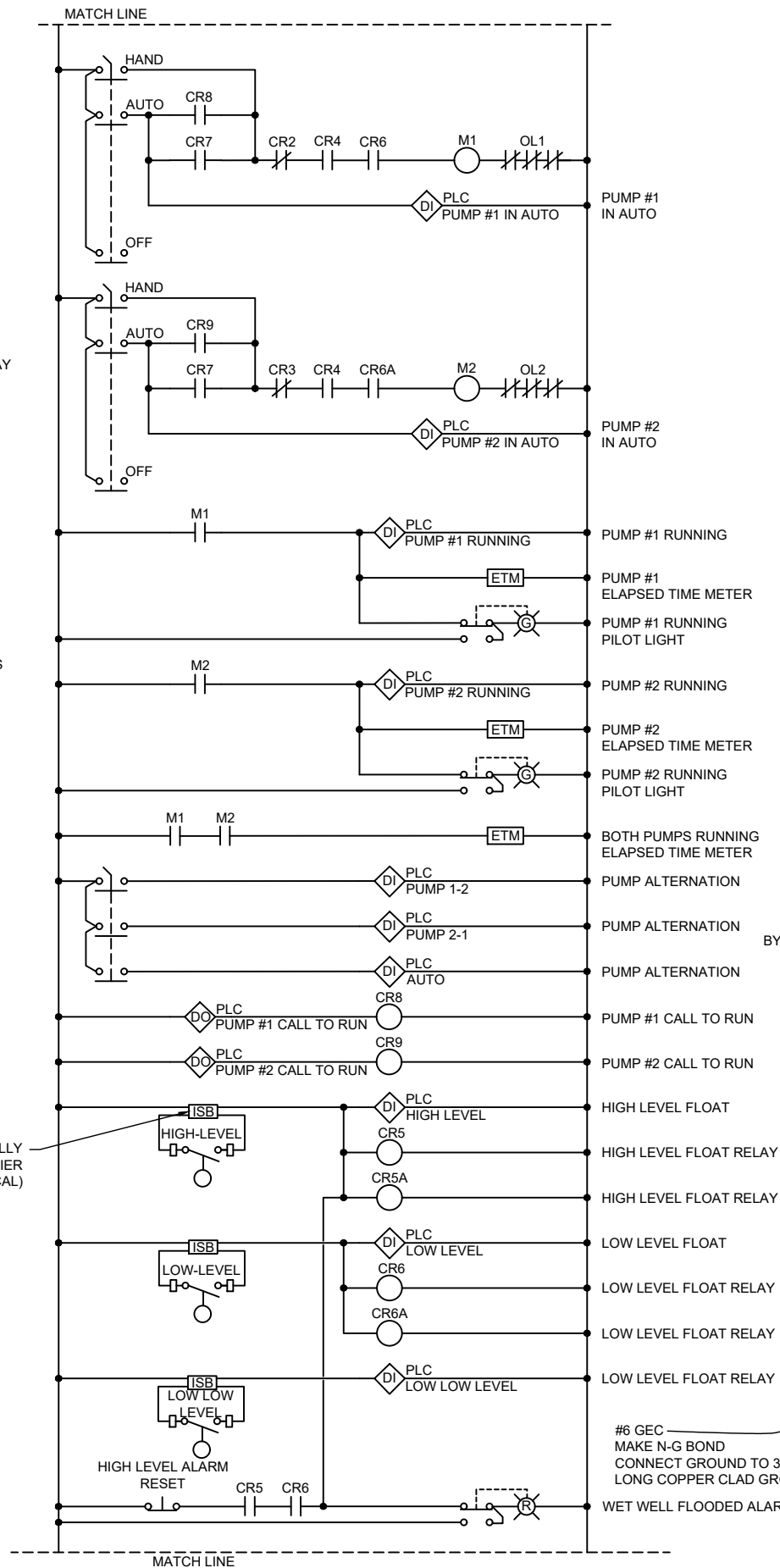
PROJECT NO.	231132.00
DATE	8/4/2026
DRAWN BY	AWB
FILE NAME	S-231132_ELEC.dwg
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	231132 SITE TOPO.dwg
PLAN IN HAND	---
INITIALS	---
DATE	---
70 PERCENT REVIEW	JTS
INITIALS	---
DATE	3/13/24
95 PERCENT REVIEW	JTS
INITIALS	---
DATE	5/14/24
REVISIONS	---

U.04



NOTES:

1. USE PUMP MANUFACTURER'S SEAL FAIL AND OVERTEMP RELAY (FLYGT MINI-CAS OR EQUAL BY OTHER PUMP MANUFACTURERS). THIS SHALL BE FURNISHED BY PUMP MANUFACTURER AND FIELD INSTALLED BY CONTRACTOR. RELAY SHALL BE MOUNTED IN CABINET INNER DOOR.
2. PUMP CONTROL PANEL IS INTENDED TO MATCH OTHER LIFT STATION CONTROL PANELS CURRENTLY IN SERVICE WITHIN THE CITY.
3. CONTRACTOR TO FURNISH AND INSTALL MECHANICAL INTERLOCK BETWEEN UTILITY MAIN BREAKER AND GENERATOR CONNECTION MAIN BREAKER SO THAT ONLY ONE OF THE TWO BREAKERS IS ALLOWED TO BE CLOSED SIMULTANEOUSLY.
4. GENERATOR RECEPTACLE SHALL BE KILLARK VR1042-S39 WITH VJA100 ANGLE ADAPTER TO MATCH EXISTING GENERATOR RECEPTACLE AT EXISTING LIFT STATIONS IN TOWN.

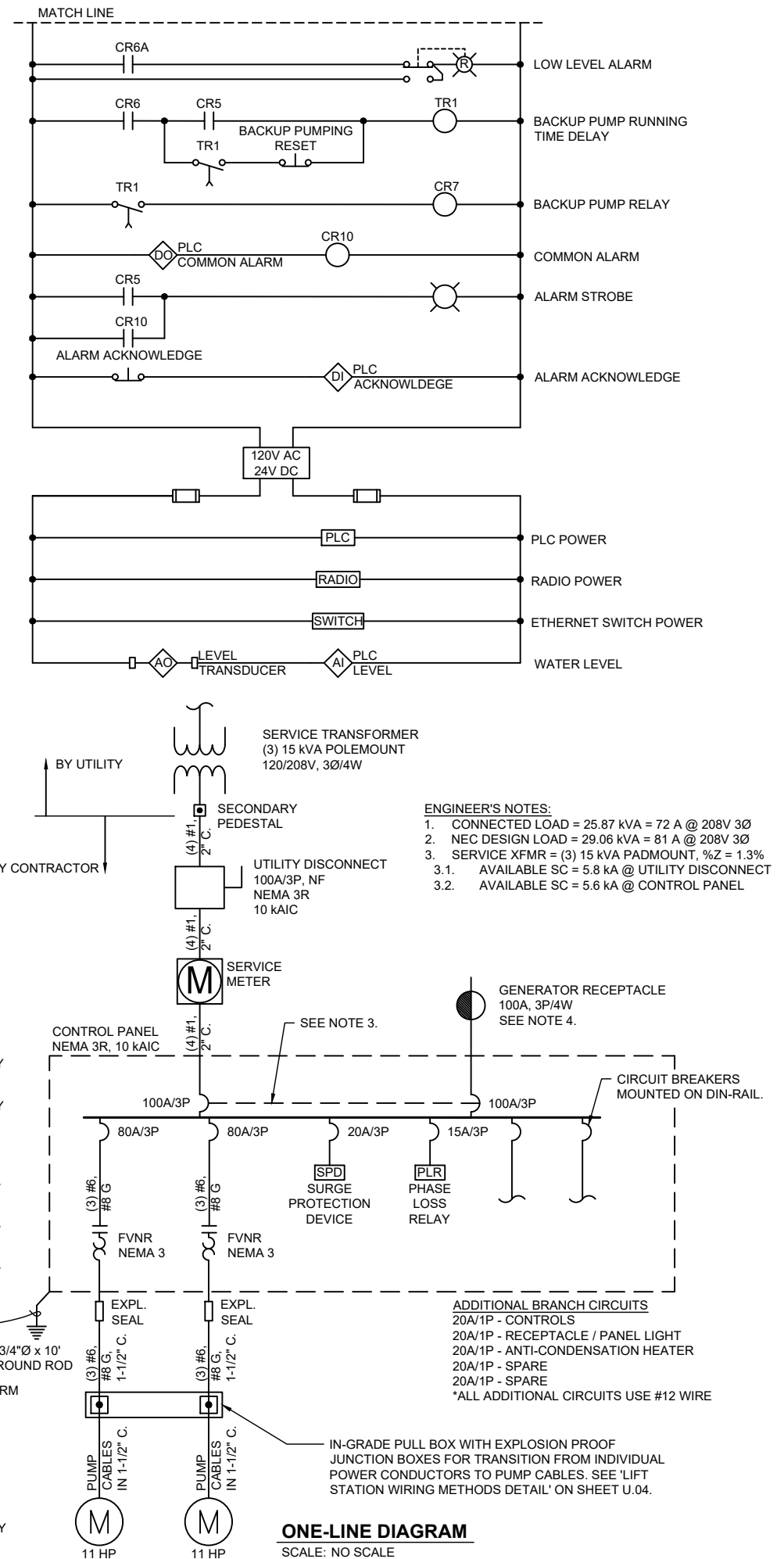


CONTROL DIAGRAM

SCALE: NO SCALE

INSTRUCTIONS TO BIDDERS:

1. ALL ELECTRICAL WORK SHOWN ON THIS SHEET SHALL ONLY APPLY TO THE BASE BID.



ONE-LINE DIAGRAM

SCALE: NO SCALE

OBJECT NO. 231132.00
 DATE 8/4/2026
 DRAWN BY AWW
 FILE NAME S-231132_ELEC.dwg
 PLOT BOOK CARROLL #49
 PLOT CREW J.R.
 SURVEY FILE NO. 231132 SITE TOPO.dwg
 MAN IN HAND
 INITIALS DATE
 PERCENT REVIEW
 INITIALS DATE JTS 3/13/24
 PERCENT REVIEW
 INITIALS DATE JTS 5/14/24
 REVISIONS

J:\Projects\231132\Carroll Main Golf Course Subdivision\Design\Drawings\Sheet\231132_ELEC.dwg, on 8/19/2026, 2:27 PM.



RADIO COMMUNICATION PLAN
SCALE: SEE GRAPHIC SCALE



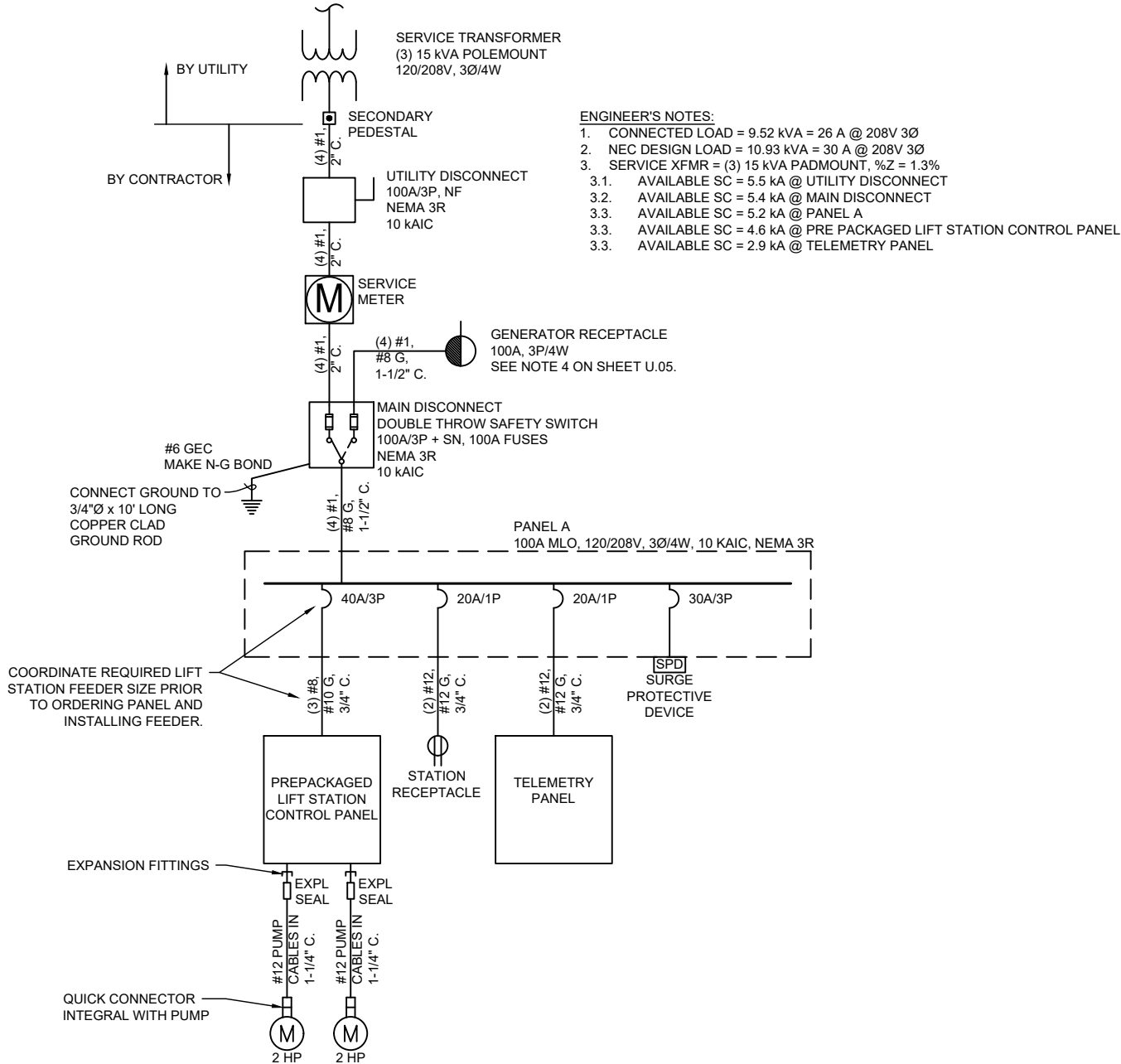
Know what's below.
Call before you dig.

PUBLIC IMPROVEMENTS
WEST GOLFVIEW SUBDIVISION
2026
CARROLL, IOWA

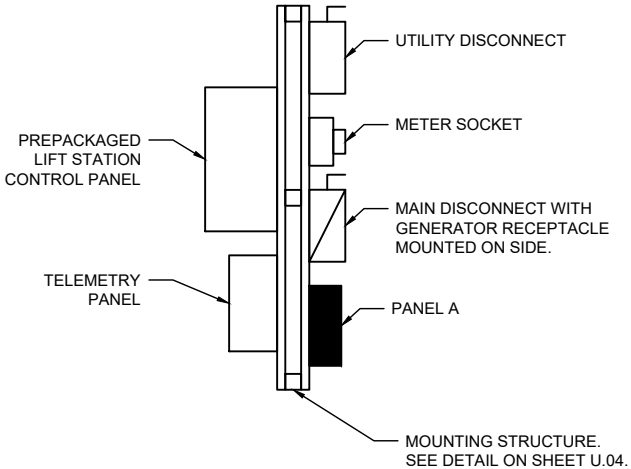
RADIO COMMUNICATION PLAN

PROJECT NO.	231132.00
DATE	8/4/2026
DRAWN BY	AWB
FILE NAME	S-231132_ELEC.dwg
FIELD BOOK	CARROLL #49
FIELD CREW	J.R.
SURVEY FILE NO.	231132 SITE TOPO.dwg
PLAN IN HAND	
INITIALS	---
DATE	---
70 PERCENT REVIEW	
INITIALS	JTS
DATE	3/13/24
95 PERCENT REVIEW	
INITIALS	JTS
DATE	5/14/24
REVISIONS	

INSTRUCTIONS TO BIDDERS:
1. ALL ELECTRICAL WORK SHOWN ON THIS SHEET SHALL ONLY APPLY TO THE BID ALTERNATE.



BID ALTERNATE ONE-LINE DIAGRAM
SCALE: NO SCALE



BID ALTERNATE ELECTRICAL EQUIPMENT
SCALE: NOT TO SCALE



627 N Adams Street
Carroll, IA 51401

phone: (712) 792-1000 | fax: (712) 792-0139 | website: www.cityofcarroll.com

MEMO TO: Aaron Kooiker, City Manager *AK*

FROM: Randall M. Krauel, Director of Public Works *RMK*

DATE: May 19, 2025

SUBJECT: Tree Removal – 2026

- Report of Proposal Opening
- Consideration of Acceptance of Proposal

On August 11, proposals for the Removal of Sixty-one (61) Dead or Dying Trees and Eighty-nine (89) Stumps were received, opened and tabulated. Eighteen proposals were received. The proposals are detailed on the attached Summary of Proposals Received and summarized as follows:

Affordable Tree Service, LLC	\$ 75,520.00
All Purpose Contractors, LLC	\$ 88,525.00
Bender Enterprise, LLC	\$ 30,705.00 ⁽¹⁾
Custom Tree Care, LLC	\$ 90,125.00
Eddy's Limbs	\$ 69,400.00
Forestry Services, LLC	\$175,115.00
Hawkeye Farm Services, LLC	\$ 17,800.00 ⁽¹⁾
Jerald's Tree Service	\$138,775.00
Kanesville Valley Inc.	\$ 91,575.00
Kautzky Tree Care, LLC	\$ 72,696.00
Kings Tree Service	\$106,000.00
Legacy Land & Brush Solutions, LLC	\$ 25,365.00 ⁽¹⁾
Schwebach Tree Service	\$ 47,025.00
Sockets and Saws, LLC	\$172,785.00
Jim Schultes	\$ 27,145.00 ⁽¹⁾
Tallgrass Land Stewardship Co.	\$167,367.00
Western Iowa Tree Services	\$ 53,110.00
Wiederin Stump Grinding	\$ 13,350.00 ⁽¹⁾

Note:

(1) Stump Removal, Disposal and Restoration only

Schwebach Tree Service submitted the low bid of \$47,025.00.

Recommendation: Mayor and City Council consideration of passage and approval of the Resolution accepting the Proposal of Schwebach Tree Service for Removal of Sixty-one (61) Dead or Dying Trees and Eight-nine (89) Stumps at their Proposal price of \$47,025.00.

RMK:ab
attachments (3)

RESOLUTION NO. _____

RESOLUTION ACCEPTING THE PROPOSAL FOR REMOVAL OF SIXTY-ONE (61) DEAD OR DYING TREES AND EIGHTY-NINE (89) STUMPS.

WHEREAS, Chapter 17 of the Code of Ordinances of the City of Carroll, Iowa, provides that all contracts made by the City be approved by the City Council; and,

WHEREAS, the following Proposal for the Removal of Sixty-one (61) Dead or Dying Trees and Eighty-nine (89) Stumps is the lowest responsive, responsible Proposal for said work as follows:

Contractor: Schwebach Tree Service

Amount of Proposal: \$47,025.00

Portion of Project: All Work

and,

WHEREAS, the City Council has determined that acceptance of the Proposal is in the best interest of the City and the residents thereof.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carroll, Iowa, that the Proposal of Schwebach Tree Service for the Removal of Sixty-one (61) Dead or Dying Trees and Eighty-nine (89) Stumps is accepted and the Mayor is authorized to execute the Proposal on behalf of the City.

Passed and approved by the Carroll City Council this 24th day of August, 2026.

CITY COUNCIL OF THE
CITY OF CARROLL, IOWA

By: _____
Gerald H. Fleshner, Mayor

ATTEST:

By: _____
Laura A. Schaefer, City Clerk

CITY OF CARROLL

SUMMARY OF PROPOSALS RECEIVED

Project: **REMOVAL OF SITXY-ONE (61) DEAD OR DYING TREES AND EIGHTY-NINE (89) STUMPS**Date: **August 11, 2026**

Location **City Hall**

Sheet No. 1 of 3

[illegible]

CITY OF CARROLL

SUMMARY OF PROPOSALS RECEIVED

Project: **REMOVAL OF SITXY-ONE (61) DEAD OR DYING TREES AND EIGHTY-NINE (89) STUMPS**Date: **August 11, 2026**

Location: **City Hall**

Sheet No. 2 of 3

[illegible]

COMPLETION	November 1, 2026	November 15, 2026	December 31, 2026		May 1, 2027	June 1, 2027 (Barring all trees removed by 5/1/27)
COMMENTS	Stump Only					Stump Only

CITY OF CARROLL

PROPOSAL

The undersigned Bidder hereby proposes to complete the work as specified in the proposal documents at the following prices.

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Tree Removal and Disposal	61 Ea.	\$ <u>625</u>	\$ <u>38,125</u>
2	Stump Removal, Disposal And Restoration	89 Ea.	\$ <u>100</u>	\$ <u>8,900</u>
Total				\$ <u>47,025</u>

See Exhibit A for locations.

The work performed under this Proposal shall be completed not later than One week from start.

The undersigned certifies that no Federal, State, County or Municipal Tax is included in the above quoted prices and that none will be added.

The Bidder hereby acknowledges that the City, 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 the best bid taking into consideration the City Manager's recommendation; and
2. Make such alterations in the Proposal documents as it determines necessary. Such alterations shall not be considered a waiver of any conditions of the documents, and shall not invalidate any of the provisions thereof.

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 City; 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 person 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.

In compliance with the above invitation for bids and subject to all conditions contained in all bid documents, requirements and specifications, the undersigned offers and agrees to furnish all services, upon which the prices are quoted, at the prices set opposite each item, if this bid is accepted within 30 days after the date of opening. If accepted, the undersigned shall be responsible for the duties and responsibilities set out in all the above-mentioned documents.

BY: Alyssa McIntyre - Business manager

NAME: Alyssa McIntyre
(signature)
(printed name)

COMPANY: Schwebach Tree Service

ADDRESS: 3671 US 75 Ave
Sioux Center, IA 51250

TELEPHONE: (O) 712-348-5074

(C) NA

EMAIL: Schwebachtree@gmail.com

ACCEPTANCE OF PROPOSAL

The above prices, requirements, specifications and conditions are satisfactory and are accepted. Bidder is authorized to do the work as set out herein. Payment will be made monthly based on completed work. This proposal and all bid documents, including the requirements and specifications together make up this contract and agreement between the City and successful bidder, and the parties are responsible for their respective duties and responsibilities set out in the above-mentioned documents.

BY: _____
Gerald H. Fleshner, Mayor

DATE: _____

MEMO TO: Honorable Mayor and City Council Members

FROM: Aaron Kooiker, City Manager



DATE: August 18, 2026

SUBJECT: Carroll Chamber of Commerce Celebrate Carroll Funding Request

The Carroll Chamber is changing their Band Day in October in honor of America's 250th Anniversary. Celebrate Carroll is designed to become an annual event and bring more interest to Carroll and draw more people to Carroll. In some of the research provided by Group Creative Services for the Downtown Art and Cultural Plan, there is strong support for an event in Carroll.

The Chamber has done a good job of fundraising for this event; however, with the scope and new venture, the Chamber is asking the City to assist with overall costs of the event. The request for \$10,000 for this event will be to cover cost of entertainment, activities, equipment rentals, insurance, security, and event operations.

The City's Hotel/Motel tax collections are to be focused on tourism. This is a perfect opportunity to use some of those collections to put towards a tourism event.

RECOMMENDATION: Council discussion and approval of allocating \$10,000 from the Hotel/Motel Fund to the Carroll Chamber of Commerce Celebrate Carroll event.



August 6, 2026

Dear Aaron,

On behalf of the Carroll Chamber of Commerce, I am writing to respectfully request financial support from the City of Carroll for the Celebrate Carroll community event.

This first-ever Celebrate Carroll is especially meaningful because it will also serve as our community's celebration of America's 250th anniversary. The event will bring residents and visitors together for live music, children's activities, inflatables, sports games, food, and entertainment for all ages. It is an opportunity to celebrate our community, honor this historic national milestone, and create lasting memories for families and friends.

The Carroll Chamber invests significant staff time, volunteer coordination, fundraising, and financial resources to make Celebrate Carroll possible. We have been fortunate to receive generous sponsorships from local businesses, and we are grateful for their support. However, those contributions do not fully cover the increasing costs of entertainment, activities, equipment rentals, insurance, and event operations. **As an outdoor event, we also face the risk of weather-related cancellation, which could result in significant unrecoverable expenses for the Chamber.**

We appreciate the City's continued partnership with the Chamber and its commitment to supporting events that enhance the quality of life in Carroll. With that in mind, we respectfully request a contribution of \$10,000 toward Celebrate Carroll to help offset event expenses and keep the event affordable and accessible for families throughout our community.

Celebrate Carroll is an investment in our community. It brings people together, encourages community pride, supports local businesses, and showcases Carroll as a welcoming place to live, work, and visit. We hope the City will partner with us in making this event and our community's celebration of America's 250th anniversary a memorable success.

Thank you for your time and consideration. We appreciate your continued support of our community and would be happy to answer any questions you may have.

Sincerely,

Adam Schweers

Executive Director
Carroll County Growth Partnership
Carroll Chamber of Commerce

Ashley Schable

Chamber Director
Carroll Chamber of Commerce

Carroll Airport Commission

Regular Meeting

The regular meeting of the Carroll Airport Commission was held on Monday, August 10, 2026, at Arthur Neu Airport. Commission members present were Norman Hutcheson, Kevin Wittrock and Gene Vincent. Also attending was Don Mensen, Airport Manager. Greg Siemann and Richard Fulton were absent. Chairman Hutcheson called the meeting to order at 5:30 PM.

Minutes

The minutes from the previous meeting were reviewed by the commission. Wittrock moved to approve the minutes, seconded by Vincent. All present voted Aye. Nays: None. Absent: Siemann, Fulton. Motion carried, 3-0

Hangar Project

There was no discussion in regard to the new hanger.

South Hangar Demolition

Removal of the old hanger is approximately 90% completed. While the deadline for full removal is September 1 it appears, it will be finished in 7-10 days.

T-Hanger Maintenance

Schroeder Construction completed the work on the old T-hangers. The workmanship was inspected by the airport manager and it appears satisfactory. Oil leaks in some of the gear boxes will require new seals. This work is scheduled but has not been completed.

New Business

Discussed the upcoming Flight Breakfast. It will be conducted the same as past years.

Monthly Bills

The following bills were presented to the Commission for approval:

Vendor	Description	Account 001-6-2080-	Amount
Carroll Aviation	Contract	24969	\$ 7,685.00
Racoon Valley Electric Coope	Electric Service	23711	\$ 557.38
Bomgaars	Rodent Control	25952	\$ 53.95
Rueters	Snow Blower Repair	23321	\$ 1,627.80
Mid-Iowa Insurance	Hail Insurance	25955	\$ 798.00
Nutrien Ag Solutions	Fertilizer, Additive, Herbicide	25955	\$ 397.10
Chad Steinkamp	Seed Beans	25955	\$ 1,988.50
R&R Septic Services	Septic Repair	25071	\$ 251.45
Carroll Refuse Service	Garbage Service	25952	\$ 68.83
Wittrock Motor Company	Car Rental	23321	\$ 550.00
Schroeder Construction	T-Hanger Doors Repair	23100	\$ 11,786.59
Echo Electric	T-Hanger LED Bulbs 300W	23100	\$ 342.85
Drees Co	Water	25952	\$ 65.00
Van Wall Equipment	Mower Repair	23321	\$ 500.54

A motion was made by Wittrock and seconded by Vincent to approve the bills as presented. All present voted Aye. Nays: None Absent: Siemann, Fulton. Motion carried, 3-0

There being no further business, a motion to adjourn was made by Wittrock and seconded by Vincent. All present voted Aye. Nays: None. Absent: Siemann, Fulton. Motion carried, 3-0 and the meeting was adjourned at 5:51 PM.

The next regular meeting will be held on Monday, September 14, 2026 at Arthur Neu Airport.

Chairman / Vice Chairman

ATTEST:

Secretary

CARROLL COUNTY SOLID WASTE MANAGEMENT COMMISSION

EXECUTIVE BOARD MEETING - UNOFFICIAL MINUTES

August 11, 2026

1. The meeting was called to order at 6:30 a.m. at the Carroll County Recycling Center by Chair Scott Johnson, Carroll County Supervisor. Others present were Dan Snyder, Mayor of Breda; Harvey Dales, representative for Manning; Jessica Leighty, representative for Coon Rapids; Jerry Fleshner, Mayor of Carroll; and Trevor Reece, Director.
2. Dales moved and Snyder seconded to approve the agenda as presented. Motion carried, all voting aye.
3. There were no public comments.
4. Dales moved and Leighty seconded to approve the minutes of the July 14, 2026, meeting. Motion carried, all voting aye.
5. Reece reviewed the bills payable. Snyder moved and Leighty seconded to approve the bills as presented. Motion carried, all voting aye.
6. Reece presented the financial report, review of accounts, and market prices. Dales moved and Fleshner seconded to approve the reports as presented. Motion carried, all voting aye.
7. The board reviewed our lagoon project. Snyder moved and Leighty seconded to approve the lagoon project. Motion carried, all voting aye.
8. Reece reviewed our investment plan.
9. Reece gave an update on our Education Coordinator position.
10. Reece gave an update on our EMS program.
11. The board discussed our land lease options.
12. Reece gave an update on landfill operations.
13. Reece gave an update on recycling operations.
14. Next meeting is Tuesday, September 8, at 6:30 a.m. at the recycling center.
15. Meeting adjourned at 7:32 a.m.

Respectfully submitted:

Trevor Reece

Library Board Minutes

August 17, 2026

The Carroll Board of Trustees met in the Community Room at the Carroll Public Library. Trustees present: Julie Perkins, Brenda Hogue, Marsha Nuckels, Keith Cook, Wes Treadway, Ralph von Qualen, Kourtney Abbotts and Summer Parrott. Trustees Absent: Jamie McCool. Also present: Director Wendy Johnson. Hogue acted as recording secretary in McCool's absence.

Cook called the meeting to order at 5:17pm. It was moved by Perkins and seconded by von Qualen to approve the agenda. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Minutes Approval: It was moved by Treadway to approve the minutes from July 20, 2026. The motion was seconded by Nuckels. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Financials/Approval of bills: von Qualen motioned to approve bills. The motion was seconded by Treadway. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Public Comment: Thank-you messages received from Kuemper Cares and a patron with appreciation for the library and staff.

Director's Report: Johnson reviewed the Directors' Report; some highlights include new artwork hung displaying the history of the Carroll Public Library, fall hours starting after Labor Day, Rheta Fiscus memorial displayed, online book club is a huge success, NEA Big Read program is coming together, and overall, the library had a very successful fiscal 2026 year. It was also proposed to close the library on Veteran's Day (November 11, 2026) for the staff to have time to relocate and rearrange materials.

New Business:

FY26 Annual Statistics: Johnson went over the financials and stats from the 2026 fiscal year. No action needed.

2026 Summer Reading Statistics: Johnson went over stats from the summer reading program which was a huge success!

Perkins motioned to approve the library closing on November 11, 2026, for the staff to work on moving materials. von Qualen seconded the motion. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Old Business: none

Policy Review:

Bylaws: Parrott motioned to approve the new logo on the Bylaws with a second from Perkins. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Confidentiality Policy: Parrott with a second from Nuckels motioned to approve the verbiage changes recommended by Johnson to the Confidentiality Policy. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0,

Director Annual Review: Johnson left the meeting at 5:55 pm when the Board entered a closed session. The closed session was motioned by Parrott with a second from Perkins. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Johnson received a favorable review with Treadway motioning to approve a 2-step increase in compensation from 92% to 100%, top of the pay rate. Parrott seconded the motion. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Closed session ended at 6:05 pm with Johnson returning. Treadway with a second from Perkins was made to end the closed session. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Board of Trustees Continuing Education

Trustee Handbook Chapter 14: Public Library Standards, Johnson went over a summary of the standards a library is required to meet for tier levels with the Carroll Public Library meeting requirements to be a tier 3 level.

Agenda Items for Next Meeting:

Carroll County Library Board Trustees Training

Adjourn: von Qualen motioned to adjourn at 6:15 pm with a second from Treadway. All voted aye. Nays: None. Abstain: None. Absent: McCool. Motion passed 8-0.

Next Regular meeting- 5:15pm on September 21, 2026, at Carroll Public Library: Community Meeting Room—118 E. 5th St, Carroll, IA 51401.

Keith Cook- President

Brenda Hogue- Recording Secretary

CITY OF CARROLL MONTHLY ACTIVITY REPORT

Department/Division Carroll Public Library

Month: July Year: 2026



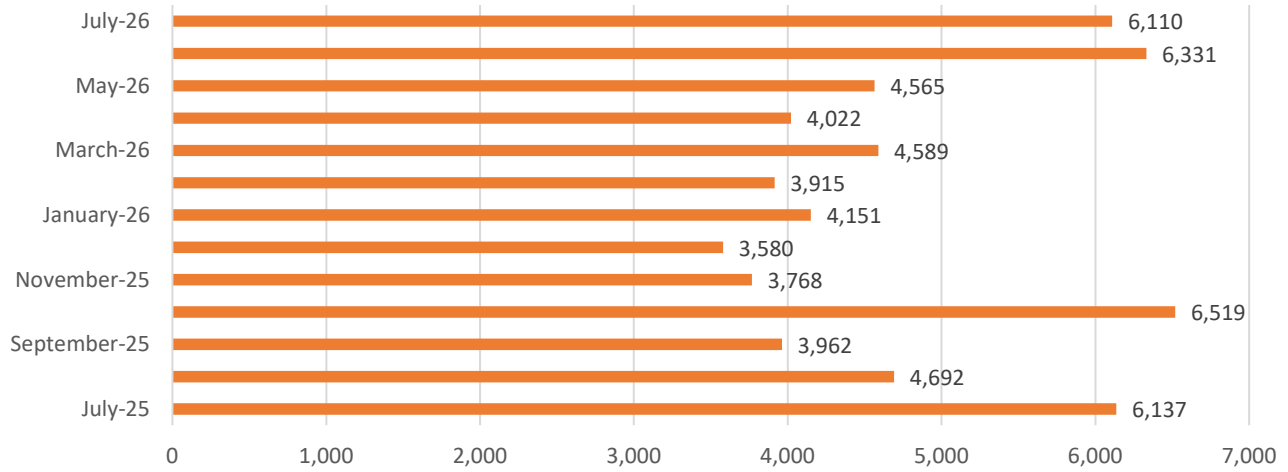
Routine activities for the month/statistics:

Monthly Statistics:		Adult/Family Programs:		Children/Teen Programs:	
Total Print Circulation	10,420	Interviews	3	Storytime (10)	276
Libby Circulation	2,102	America250 Book Club	7	Book Visits Here (6)	199
Public Computer Use	480	Crafty Ladies (4)	64	Book Visits Away (3)	79
Wi-Fi Use	676	Live Virtual (in person)	5	Coloring Pages	643
Website Visits	1,475	Live Virtual (online)	12	Craft Kits	225
Consumer Reports	92	Cribbage (2)	10		
Freegal	571	Trivia Night	25	Environmental Programs (4)	91
Blinkist	1	Alzheimer's Family Group	9	Maker Space Crafts (5)	383
Transparent Language	1	Journey Outreach	17	Kids' Clubhouse (5)	136
LinkedIn Learning	17			Maker Space Activities (4)	301
Kanopy	63	Coffee & Coloring	17	Bee Bots	19
Mometrix	4	Bingo	28	Summer Fun Camp (2)	84
Comics Plus	0	Lawn Games	13	Bird Feeders (3)	28
Carroll Newspaper Archives	624	Dragon Trivia	5		
Carroll Co. Archives	147	CultureALL Drum Workshop	10	D&D (2)	18
Virtual authors (previous)	1,841	Jurassic Park Movie	7		
Wowbrary Newsletters	15,119	Rec Center Shows (3)	510	Study Room Use	137
July Program Guides	220			Meeting Room Use	33
3D Prints	32	Beanstack (447 completed)	668	Makers/Craft Room Use	40
Facebook Video Views	13,406	Puzzle (0 finished)	59	Curbside Pickup	5
		Pixel Art Poster	9	Homebound Delivery	9
Total Resources Utilized	47,291				
				Total Program Attendance	4,184
Members Saved – July 2026		\$150,566.55		Monthly Door Count	6,110
Members Saved FY27 to date		\$150,566.55		New Library Cards Issued	58

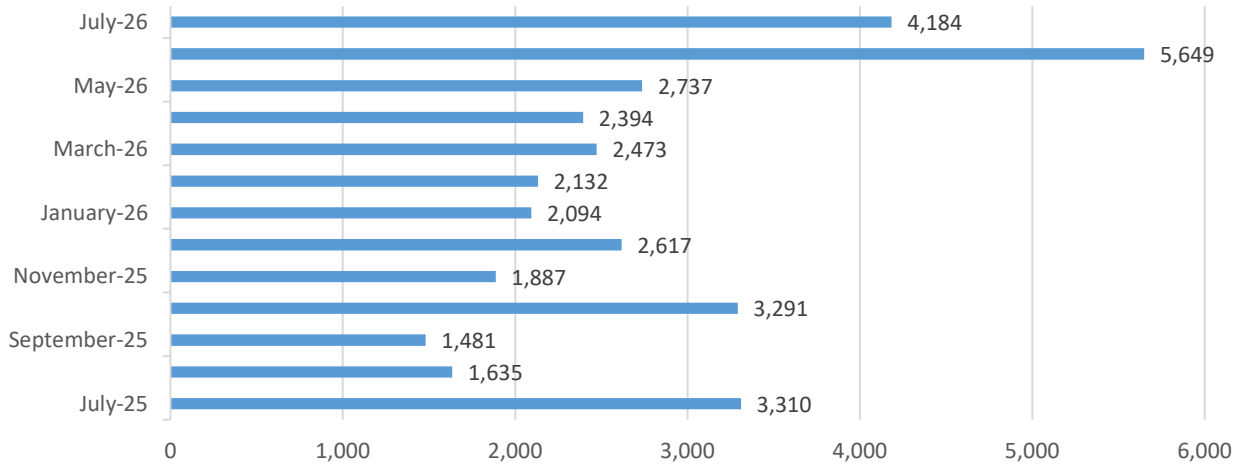
Special activities/accomplishments:

- There are a few programs that take place in the first full week of August, also known as Prize Pick-Up Week, but most of the summer reading programs and activities have been finished. Summer reading is what most libraries are famous for - and we are no exception! In the last several years, summer reading completions have hovered around 300, whereas this year we had 436 completions. We also had several new sponsors this year, which many of our patrons were excited to hear about. Staff are very happy to have another successful summer reading in the books!
- During the summer, we are mostly focused on children's programming, since they are so busy during the school year that it is hard to find time to offer them programs. August and September will show a significant decrease in the number of programs offered and the attendance. However, we will start to focus more on Plant a Seed, Read programs for adults in the fall/winter.

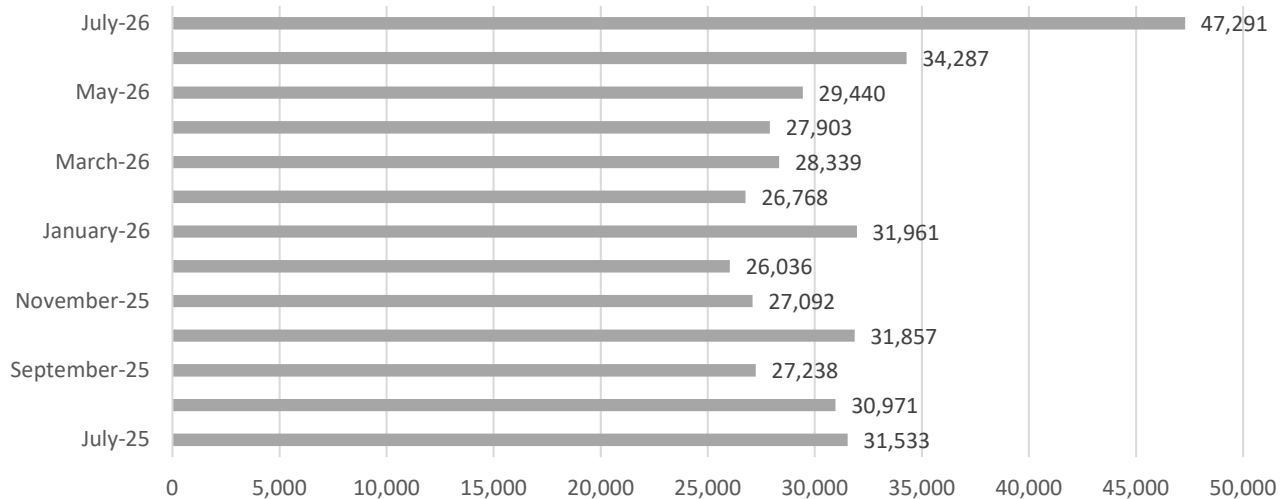
Door Count



Program Attendance



Resources Utilized



Director's Report

August 2026



Library Hours & Closures: The library will return to our regular hours on Tuesday, September 8. Monday through Thursday the library will be open 10 am to 8 pm. Friday will still be 10 am to 6 pm. Saturday will be 10 am to 5 pm. The library will be closed for Labor Day on Monday, September 7.

I would like to propose closing the library for Veteran's Day, which will be Wednesday, November 11. Looking at our strategic plan, we are hoping to get the large print moved closer to the front of the library and move the movies to the back, next to the newspapers. It is difficult to move shelving and re-arrange large amounts of books and DVDs while the library is open. If we have a day when the library is closed and all the full-time employees are able to help with this process, I think we could get a lot of it done. Many patrons will already assume the library will be closed on this day, and if we are able to let them know in advance, it should not cause many issues.

Building & Grounds: The Carnegie Library pictures have been mounted on the wall next to the donor recognition plaque outside the large meeting room. Andy Snyder from the City of Carroll was able to get those pictures mounted for us and I greatly appreciate his skill and his patience. This project was funded through the \$10,000 gift provided to Carnegie Libraries by the Carnegie Foundation of New York and shows some of the history of this building as a descendant of the Carnegie Library that now houses the Carroll County Historical Museum. These pictures have not been displayed long, but already we have had many patrons comment on liking the addition of the pictures and staff have heard many stories starting with, "When I was a kid."

The lobby TV has been replaced, so the slideshow of city events can be viewed by the children's circulation desk, above the indoor book drop, and in the lobby of the library. This slideshow is something that our program specialist, Luke, updates each week and there are occasional events from the Rec Center showcased as well.

The memorial plaque from Rheta Fiscus has been displayed between the adult circulation desk and the indoor book return. I felt this location was ideal for the memorial plaque since Rheta worked at the library and so many patrons go by this section.

Andy Snyder has plans to install the book clock on the gray accent wall across from the indoor book return soon. We have books that were donated to the library or books weeded from our collection that will serve as the numbers of the clock.

I was able to do some troubleshooting with Leroy from Computer Repair and Service on the projector in large meeting room. Leroy needs to gather a little more information on this projector and will come back to see if he can help fix the issues we are having.

Library Materials: Online Book Club started on July 31, and we currently have 51 participants enrolled. It is nice to see so many patrons responding to a new resource being offered. An online book club was one of the goals listed in our long-range plan for something we wanted to start offering in fall 2026, so we are a little ahead of schedule for this one. It will be interesting to see how this discussion goes, since having this many people attend an in-person book club would not be practical. Many patrons said they have been looking for a resource like this to be able to participate in a book discussion in this way, so we will see!

3D Printer Update: We continue to print many 3D prints for patrons. I had to order a new print head, and I ordered a couple extras (both to get up to the price for free shipping and so we have an extra for if this situation comes up again). At this point we are over 1,400 hours on the 3D printer since we purchased it.

NEA Big Read Update: The event sheet listing the event details for our NEA Big Read programs is due to Arts Midwest 30 days before the first event, so that will need to be turned in by August 25. At this point, I am contacting our community partners to make sure we have the dates and times in place and getting our resources ordered. I will be asking for volunteers from the library board, library foundation, and the friends group for our larger events.

Summer Reading Updates: Our community goal for this year was to read 150,000 minutes. Since I have been employed at the Carroll Public Library, our summer reading challenges have been based on the number of books read instead of minutes, so we thought we would try something different this year. We also thought stickers would be easier to coordinate with minutes read than with books read. Our patrons rose to the challenge and logged 552,674 minutes! Next year, we are going to need to set the bar a little higher for our community challenge.

Since I have been at the library here, our summer reading completions have hovered around 300 (296, 299, 302). This year we had 436 completions! There were so many more completions than normal that we ran out of lawn signs and had to get in touch with Options Ink to get more ordered. We are thrilled to see so many patrons participating in our summer reading program!

State Library of Iowa: The application period for Direct State Aid and Open Access were both opened through the computer program originally offered through Baker & Taylor. I was able to get both forms submitted to the State of Iowa. The State Library of Iowa provided the library with \$3,574.58 and the library needs to report what those funds were spent on and certify these funds were used to supplement the library's budget and not replace local funds. For FY26, those funds were spent on mental health books (through our partnership with St. Anthony's Medical Center) and an Ozobot Ari classroom set for STEM instruction. Our Ozobot Evos have been very popular with our younger patrons, but they are starting to show their age and the Ari model has new features and upgrades.

A portion of the Direct State Aid for the library is based on our Open Access numbers, or library materials that were loaned to customers from other towns (either through the Interlibrary Loan System or patrons who travel to our library to check things out but live in another location). In FY26, the library lent 9,833 materials to patrons who live in many other Iowa towns, including Atlantic, Auburn, Audubon, Bayard, Boone, Churdan, Coon Rapids, Council Bluffs, Denison, Exira, Glidden, Gowrie, Grand Junction, Harlan, Ida Grove, Irwin, Jefferson, Lake City, Lake View, Lohrville, Lytton, Manilla, Manning, Odebolt, Rockwell City, Sac City, Scranton, Sioux City, Storm Lake, Wall Lake, and Westside. The Interlibrary Loan System is a great service for us, as it lets us lend our books to patrons in other libraries and lets us borrow books for our patrons that we do not have in our collection. This service is fantastic for our book clubs that need to have multiple copies.

Upcoming Programs:

September - Friends of the Library Book Sale

September 1 - Library on the Road Program for Dedham, Halbur, and Willey patrons at the Carroll Public Library

September 3 - Brown Bag Book Club

September 4 - Coffee & Coloring

September 8 - Trivia Night: Beat the Librarians

September 9 - Friends of the Carroll Public Library Relaunch
September 10 - D&D
September 14 - Cards & Conversations: Cribbage
September 15 - Evening Book Club
September 18 - Coffee & Coloring
September 21 - Maker Space Drop In: Colorful Keychains
September 21 - Author Visit: Sister Karen Lueck
September 24 - The River's Alive with Carroll County Conservation
September 24 - D&D
September 25 - Chamber Coffee: NEA Big Read
September 26 - Read, Play, Grow
September 28 - Cards & Conversations: Cribbage
September 28 - Mayoral Proclamation: NEA Big Read at City Council Meeting

PLANT A SEED, READ

2026 SUMMER READING STATS

382 Craft Kits
2,473 Coloring
Sheets



219 New
Library
Cards

139
Library
Programs



1,358
Carroll Rec
Center Shows
Attendance



668 Beanstack Users

447 Completions

552,674 Minutes Logged

Total
Program
Attendance:
5,610



June/July
Check-outs:
25,929

June/July
Door
Count
12,441

775
Program
Guides

477
students at
Field Trips



CARROLL PUBLIC LIBRARY ANNUAL REPORT FISCAL YEAR 2026

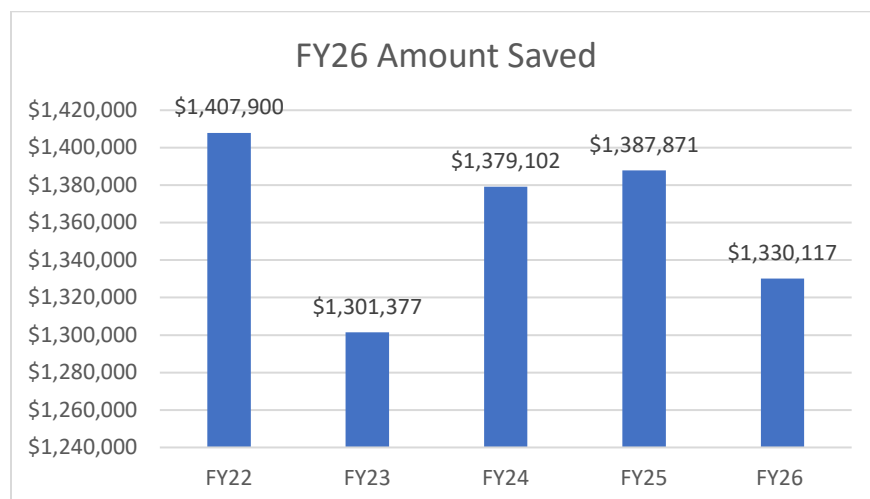
Libraries have the ability to adapt to their community, which is why each library looks a little different from their neighbors. Libraries (and librarians) are great at keeping track of statistics, and it is interesting to be able to look through year after year to see how usage of the library has changed. These statistics help library staff and the library board determine priorities for the next year and help shape the next strategic plan. While statistics do not give a full accounting of all the ways the library is utilized by our patrons, it does show that the library is a well-used community resource.

Statistically, the Carroll Public Library had many successes in FY26. Increases were seen in circulation of physical materials, downloadable use, door count, number of library patrons, wireless usage, and public access computer use. This year, library staff focused on evaluating resources and services the library offered to continue to be a benefit to our community, and these statistics reflect that. For FY27, the library wants to continue to offer resources and programs that reflect the needs and interests of our patrons. We will also continue to work towards accomplishing the goals set forth in our strategic plan.

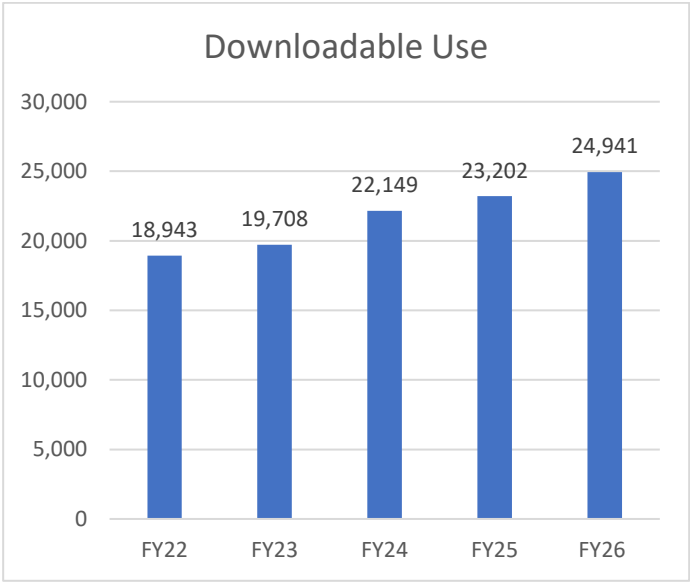
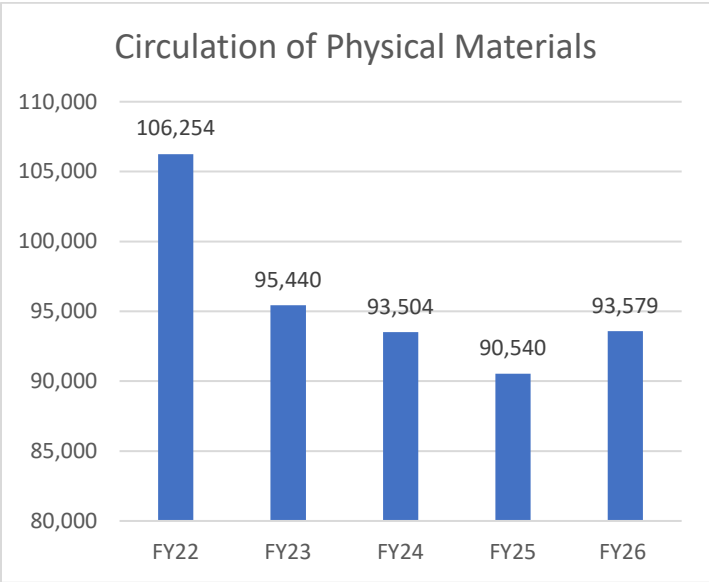
--- Wendy Johnson, Library Director

Fiscal Year 2022 - 2026 Statistics

Below you will see numerous charts outlining the last several fiscal years of data for the Carroll Public Library. All calculations have been rounded to the nearest percent for simplicity. In FY26, our focus was on evaluating the resources and programs we currently offer to see if they are being utilized by our patrons and working towards completing more of the goals outlined in our strategic plan.

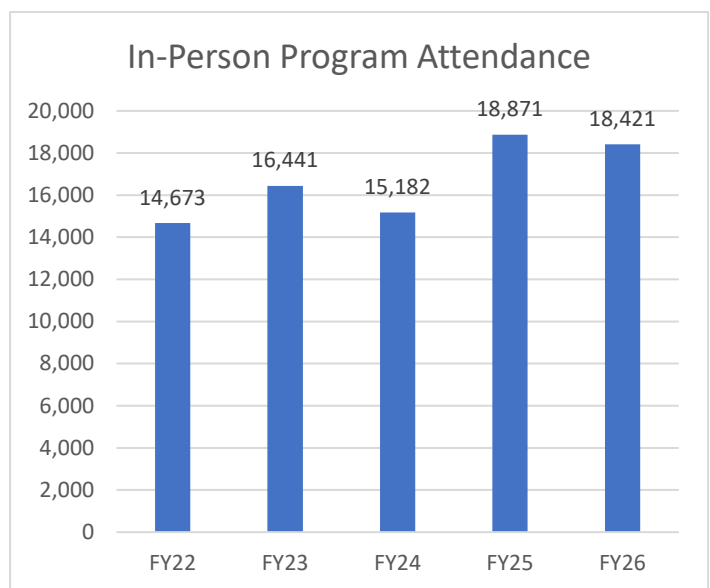
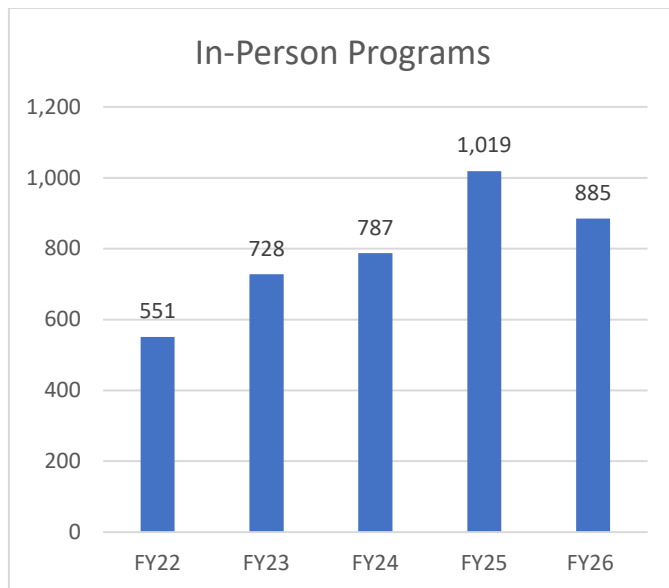


Amount Saved is a tricky title for this graphic, as it only considers a certain section of the library’s services - the physical check-outs. These are more traditional materials that the library offers: books, DVDs, puzzles, games, and take-home kits. Our library is able to offer many more services to the community that are a little harder to put a number on for an “amount saved,” such as: meeting rooms and gathering spaces, public access computers, Wi-Fi, printing, faxing, 3D printing, technology help, reference questions, programs, presentations, community outreach, and online resources. While this number does not encompass everything the library is able to provide for our patrons, it is a good way to show that libraries are still being used in the traditional way. In FY26 there was a 4% decrease in the amount saved compared to last year. Since there was not a decrease in physical circulation this year, this decrease is more than likely due to which materials were checked out more often. For example, VOX books are more expensive than a puzzle or a children’s picture book.



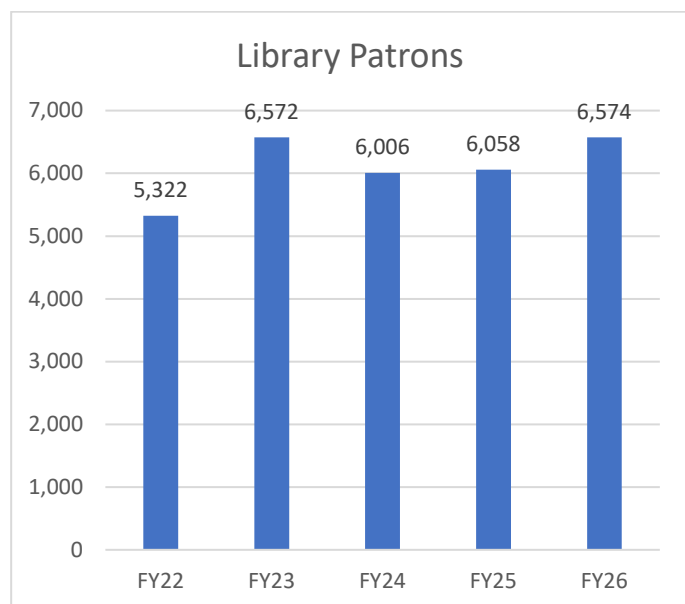
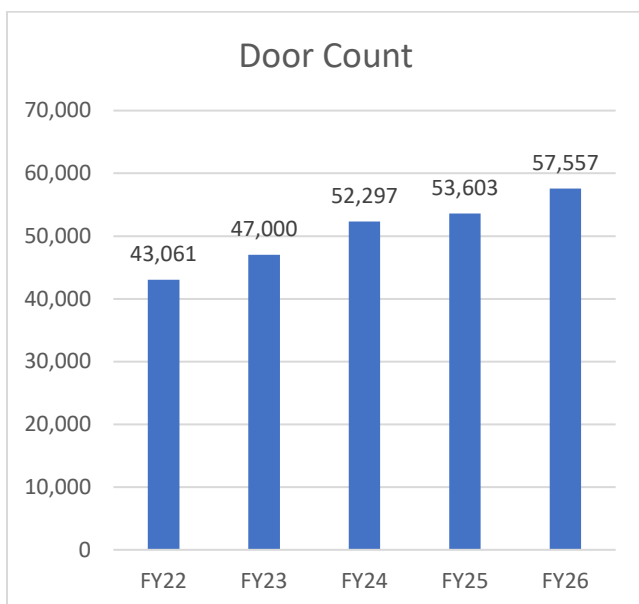
The trend recently has been a decrease in the circulation of physical materials, however FY26 marked a 3% increase in circulation. Selecting library materials that we believe will circulate well with our patrons is obviously a priority for library staff, so everyone at the library was very proud to see the increase this year!

In general, there is a trend towards more e-books and audiobooks which can be seen with the slight increase annually from FY22 through FY26. This year is no exception to that trend, showing a 7% increase in downloadable use. We offer e-books and e-audiobooks through the State Library of Iowa’s consortium with the Overdrive platform and the Libby app. The library supplements the books purchased through the State Library with purchases of additional books to decrease the time waiting on hold for our patrons. E-books and e-audiobooks are more expensive than physical copies, however they are also checked out more often and they are easier to loan to patrons from other Iowa libraries. We have many patrons who use the Libby app and are very happy with this service.



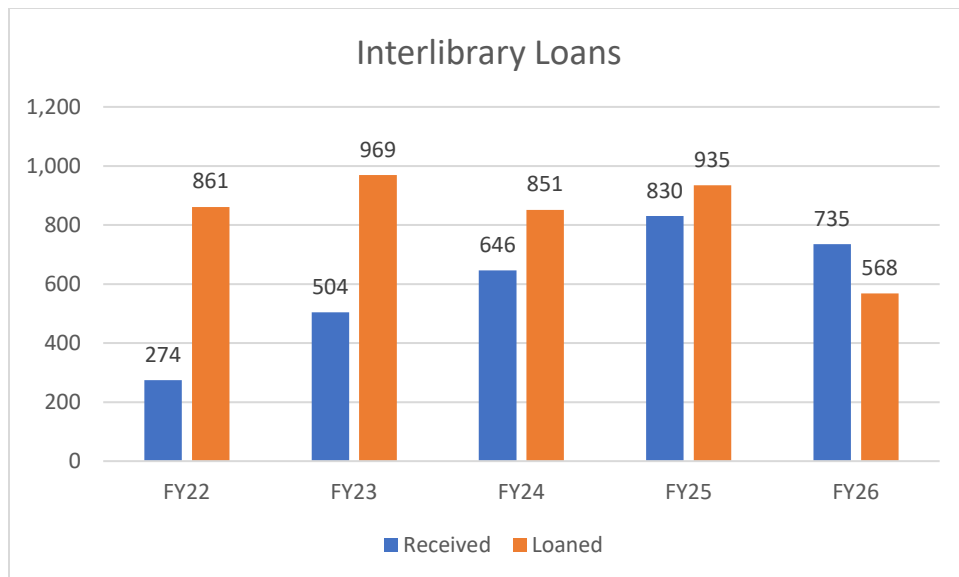
This year, library staff tried to focus on the quality of our programs rather than just the quantity of programs provided. We had outreach at local daycares and elementary schools and worked with some new partners to bring programs to the library. There was a group that utilized our space to offer programs that were able to obtain their own space, so they no longer offer programs at the library. We discontinued several weekly/monthly programs that we did not see much attendance with and started offering new things to try.

Some of those went very well and some of them did not see the attendance we would have liked. This resulted in a 13% decrease in programs offered and a 2% decrease in program attendance. This year was the first year for our new Program Specialist Librarian, so we are confident that we will see new program ideas moving forward as well!

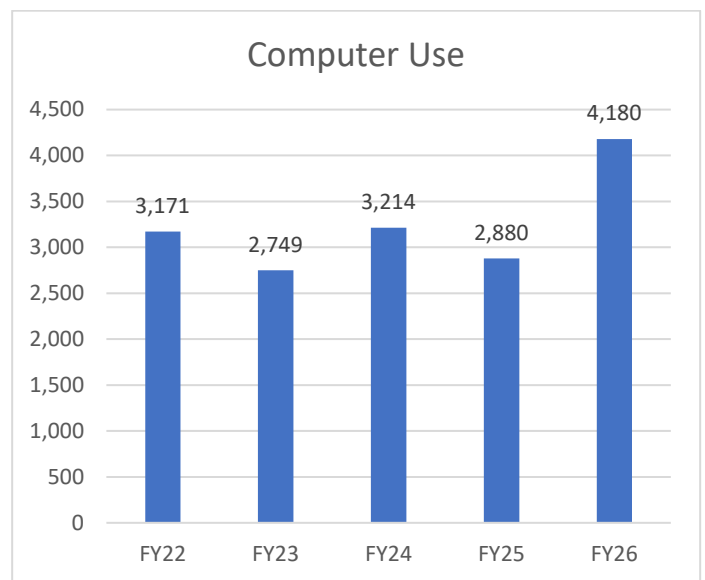
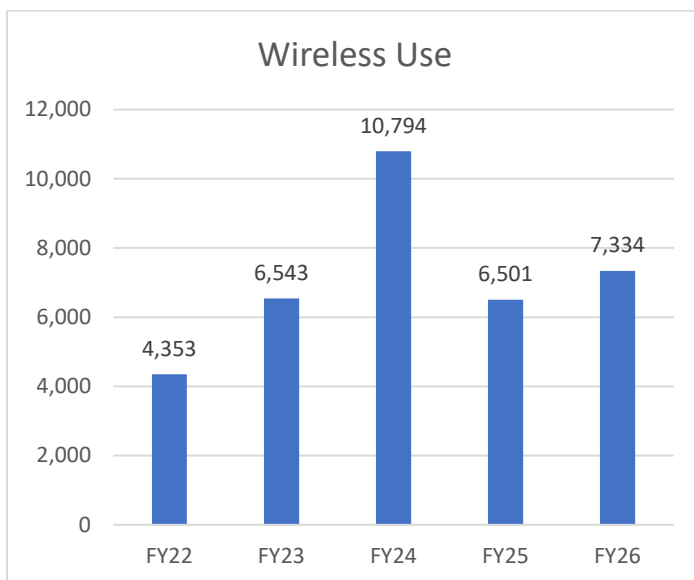


The door count is another statistic that continues to show gradual increases each year, showing a 7% increase in FY26. There was also a 9% increase in the number of library patrons registered at the Carroll Public Library.

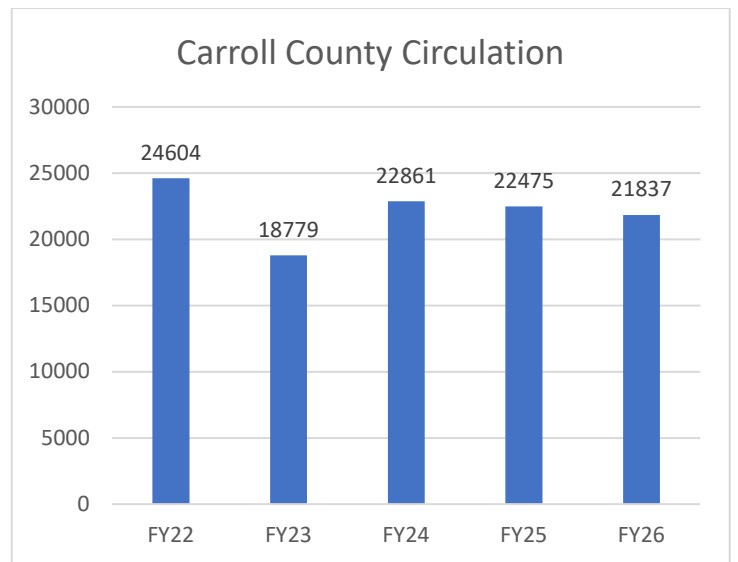
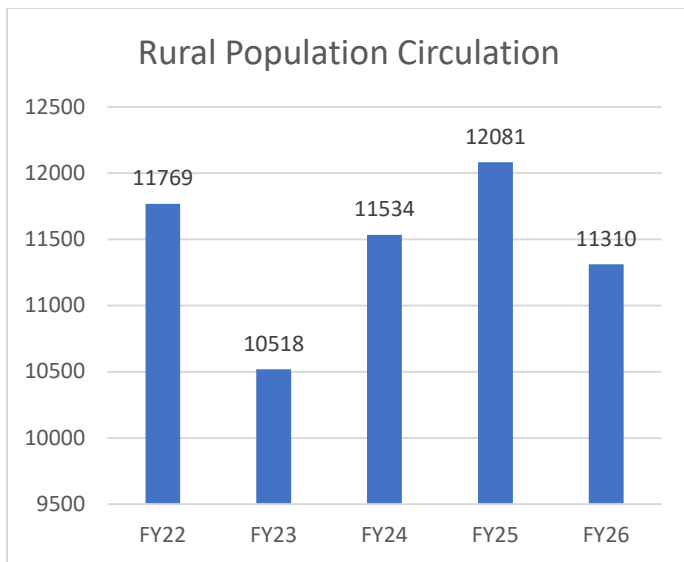
These statistics show the library is a well-used resource in our community!



The interlibrary loan system is funded by the State Library of Iowa, both the software that allows us to search for materials at other libraries and the IA Shares system that physically transfers the materials from one library to another. This system is a win-win-win for Iowa public libraries – allowing us access to more books than we have room to house, money in our budget to buy, or time and resources to send all these items through the mail system. We noticed quite a decrease in the number of items loaned to other libraries this year, 39%, and an 11% decrease in the number of items we borrowed from other libraries. This year, due to budget cuts at the state level, each library receives one IA Shares delivery each week instead of the two times a week we enjoyed previously. This has resulted in longer waiting times to get materials from other Iowa libraries, and ultimately a decrease in requests.



Wireless use showed a 13% increase for FY26. This statistic includes sessions when phones, tablets, or laptops connect to the library’s Wi-Fi, so patrons are bringing in their device to connect to the internet. The computer use statistic (up 45% this year), is the number of patrons using one of the library’s computers. These sessions can include watching videos, looking at Facebook, checking email, searching for or applying for jobs or financial assistance, completing continuing education, utilizing Microsoft Office, or any of the many reasons that people use computers.



The rural and Carroll County circulation statistics both showed a slight decrease this year (6% for rural and 3% for Carroll County). Since we do not break down the e-book and e-audiobook checkouts into city, rural, and contracting cities, it could just be that there are more rural patrons checking out books through our Libby app.

FY26 Most Popular Books – Physical Checkouts

One of the more fun statistics to look at each year is the Top Titles – the books that were checked out the most by patrons of the Carroll Public Library. The most checked out book of the year was the 2026 Adult All Iowa Reads selection – *The Quiet Librarian* by Allen Eskens. We were able to host Allen for a book discussion in person as well as through a live virtual author talk sponsored by the State Library of Iowa. Each year we purchase 10 copies of the All Iowa Reads book to be able to share with our patrons and then loan to other Iowa libraries. Next on the list was *Distant Sons* by Tim Johnston, which was the 2025 Adult All Iowa Reads.

Here at the Carroll Public Library, the most check out author was Freida McFadden again this year.

Title	Author	Genre	# of Copies	Circulation
The Quiet Librarian	Allen Eskens	Historical Fiction	10	52
Distant Sons: a Novel	Tim Johnston	Fiction	10	47
The Tenant	Freida McFadden	Mystery/Thriller	2	43
The Housemaid	Freida McFadden	Mystery/Thriller	3	42
The Crash	Freida McFadden	Mystery/Thriller	2	35
The Teacher	Freida McFadden	Mystery/Thriller	2	34
The Boyfriend	Freida McFadden	Mystery/Thriller	2	33
The Housemaid’s Secret	Freida McFadden	Mystery/Thriller	2	28
The Intruder	Freida McFadden	Mystery/Thriller	2	28
The Housemaid is Watching	Freida McFadden	Mystery/Thriller	2	27
Broken Country	Clare Leslie Hall	Fiction	2	26

FY26 Most Popular Books – Digital Downloads

This year for the digital downloads, the books checked out through the Libby app, the format was all audiobooks. In previous years there has been a mix of audiobooks and e-books. The top titles are more varied for the downloadable books this year as well. You will also notice how many more times each book was circulated for the online versions. Online books tend to be returned faster and returned automatically on their due dates. Patrons who utilize the Libby app tend to be more responsive when they see there is a book ready to be checked out, so they check out those books quickly.

Title	Author	Genre	Format	Circulation
The Housemaid	Freida McFadden	Mystery/Thriller	Audiobook	113
The Intruder	Freida McFadden	Mystery/Thriller	Audiobook	90
Broken Country	Clare Leslie Hall	Fiction	Audiobook	88
My Friends: A Novel	Fredrik Backman	Fiction	Audiobook	83
The Housemaid's Secret	Freida McFadden	Mystery/Thriller	Audiobook	83
The Women: A Novel	Kristin Hannah	Historical Fiction	Audiobook	80
Listen For the Lie	Amy Tintera	Mystery/Thriller	Audiobook	79
Say You'll Remember Me	Abby Jimenez	Romance	Audiobook	75
Great Big Beautiful Life	Emily Henry	Romance	Audiobook	73
Atmosphere	Taylor Jenkins Reid	Historical Fiction	Audiobook	67
The Correspondent: A Novel	Virginia Evans	Fiction	Audiobook	67