DITTMER COMMERCIAL ADDITION

SANITARY SEWER PLAN

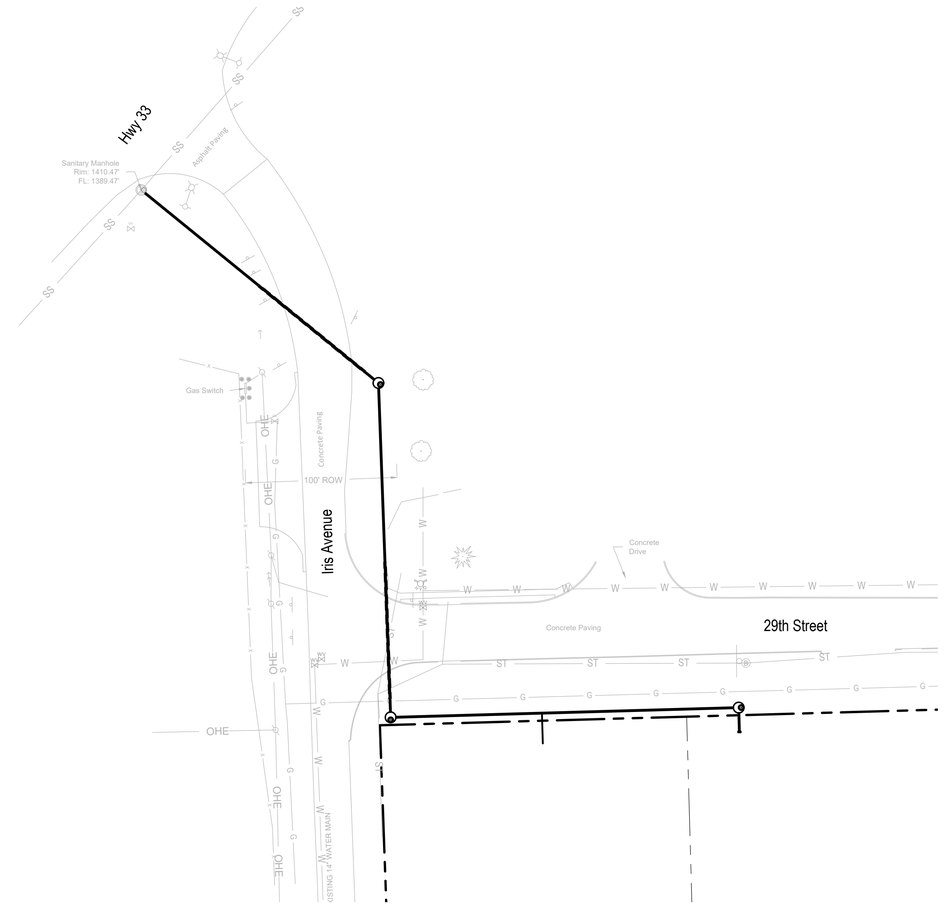
29TH STREET & IRIS AVENUE
CRETE, NEBRASKA

GENERAL NOTES:

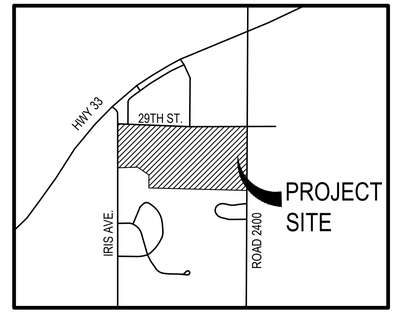
1. All project products, material bonds, and reserves shall conform to the City of Crete Infrastructure and Material Specifications, the contractor shall pay all permit fees and other associated fees required to successfully complete the project. Any costs shall be considered as incidental to the project.
2. The Contractor shall be responsible for securing all permits necessary for working within the public right-of-way and coordination of inspections of work needing approval by City of Crete.
3. All Elevations are referenced to USGS North American Vertical Datum (NAVD)88.
4. The contractor shall furnish and maintain all necessary barricades, warning signs, lights, and flagman as per the City of Crete traffic control guidelines for street construction, maintenance, and utility operations and as directed by the Engineer.
5. Access to the adjacent property must be maintained at all times. The Contractor shall be responsible for coordinating their work with the owner and site improvement contractors.
6. The existence and location of underground utility pipes and structures shown on these plans were obtained by a search of available records to the best of our knowledge constitutes all known facilities. However, the Contractor is required to take due precautionary measures to protect any existing utilities of structures located at the work site. It is the Contractor's responsibility to contact Nebraska One Call (811) @ 1-800-331-5666 at least 72 hours in advance of any excavation for the mark-out of the location of utilities and notification of commencement of work.
7. Before excavating for the contract, the Contractor shall field verify location of underground utilities. Contractor shall make exploration excavations and locate existing underground utilities sufficiently ahead of construction to permit revisions to plan if revisions are necessary because of actual location of existing facilities. Contractor shall notify Project Engineer and City Inspector of any discrepancies between existing conditions and the construction plans.
8. Contractor is required to take precautionary measures to protect the existing utility lines and any other existing improvements located within the project limits. Contractor is responsible for the repairs of any damage caused by their actions to existing conditions.
9. All spoil material shall be removed from the Street ROW, Utility Easement, or Access Easement by the Contractor. Spoil material shall be deposited within the site development boundary in areas designated by the Developer's Engineer. The material shall be stockpiled or spread as directed by the Developer. No separate payment shall be made for disposal of spoil material; it shall be considered subsidiary to the pride bid.
10. Contractor shall leave the site clean and smooth graded.
11. Contractor shall re-seed all disturbed grass areas to match existing grass.
12. A portable restroom facility shall be provided on-site during construction activities.
13. On-site fueling must comply with Local, State and Federal requirements.
14. A concrete truck washout shall be provided by Contractor, following completion of paving project, Contractor shall remove concrete washout and restore surrounding area to original grades.
15. Construction may require the disturbance of existing drainage and erosion control measures. The contractor shall make himself aware of the existing drainage and erosion control measures prior to bidding this work. A copy of the grading and erosion control plan CSW-202408924 can be found at: https://ecmp.nebraska.gov/publicaccess/viewer.aspx?&MyQueryID=513. The function of these items must be maintained throughout construction with emphasis placed on restoring their integrity prior to any rainfall event. Erosion control improvements have been constructed on this site, including terraces, silt fence, diversion dikes, and temporary sediment basins. The contractor shall be responsible for prompt reconstruction of any erosion control improvements disturbed by his operations. All disturbed erosion control improvements shall be fully reconstructed at the end of each working day prior to leaving the site.
16. Installation, maintenance and removal of erosion control BMP's shall be performed in accordance with the Nebraska Department of Environment and Energy requirements. Contractor is required to maintain erosion control BMP's during sequence of construction. Following completion of utility construction activities, Contractor must inspect erosion control BMP's and repair or replace all BMP's to original working condition.
17. Prior to moving off the job the Contractor shall notify the Developer and request a Final Walk-Through of the construction site.
18. Pavement removals and replacement shall extend to the limits of existing joints.
19. Pavement replacement shall be completed in accordance with City of Crete Infrastructure and Material Specifications. Replacement pavement thickness shall match existing. If actual thickness is different from plans, Contractor shall contact Engineer.

LEGEND

- Property Line
- Interior Property Line
- Easement
- Road Centerline
- Adjacent Property Line
- Proposed Water Main
- UGW — Exist. Buried Water Main
- Exist. Buried San. Sewer
- Proposed San. Sewer
- Proposed San. Sewer Service Lateral
- Proposed Storm Sewer
- UGC — Exist. Buried Communication Line
- UGE — Exist. Buried Power Line
- G — Exist. Buried Gas Line
- X — Existing Fence



50 0 50
1 inch = 50 ft.



VICINITY MAP

SANITARY SEWER APPROXIMATE QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
1	CRUSHED ROCK FOUNDATION MATERIAL	CY	4
2	8" SANITARY SEWER	LF	489
3	8" C900 CERTA-LOK RESTRAINED JOINT PIPE	LF	180
4	TAP EXISTING MH & REBUILD INVERT	EA	1
5	SANITARY SEWER MH (TYPE "S")	EA	3
6	SANITARY SEWER MH (TYPE "S")	VF	50
7	INSTALL 8" SANITARY SEWER PLUG	EA	1
8	BORING FOR C900 CERTA-LOK RESTRAINED JOINT PIPE	LF	180

SANITARY SEWER NOTES:

1. Sanitary sewer construction shall be performed in accordance with the Nebraska Department of Environment and Energy, and all approved addenda.
2. For Details of Sanitary Sewer Construction, Refer to the City of Crete Infrastructure and Material Specifications.
3. Location and Elevations of improvements to be met (or avoided) by work to be done shall be confirmed by the Contractor through field explorations prior to construction. Contractor shall report to the Engineer or City Inspector any discrepancies between his measurements and these plans.
4. Sanitary sewer must be separated by at least 10' (3.48m) horizontally from any existing or proposed parallel water mains, measured edge to edge.
5. At all water main crossings, sanitary sewer shall be laid at such an elevation that the top of the sanitary sewer is at least 18 inches below the bottom of the water main. In those instances where the bottom of the water main is less than 18 inches above the top of the sanitary sewer shall be constructed using a 20 ft. length of PVC pressure pipe, meeting the requirements of AWWA C900 DR 18, pressure rating 150 psi, centered on the water main.
6. Utility contractor is responsible for installation of the adjusting riser above the concrete cone section and the installation of the manhole frame and cover. Contractor shall pressure test from the adjusting riser down to the invert. Adjusting rings and external frame seal to be installed by utility contractor.

ne1call.com
Nebraska 811
know what's below.
Call before you dig.
Dial: 811

BENCHMARK:

BENCHMARK #1: NW Section Corner Found Mag Nail

ELEV: 1410.6900

BENCHMARK #2: Storm Manhole on NE Corner of Property; South Side of 29th Street

ELEV: 1444.4800

E & A CONSULTING GROUP, INC.
Engineering • Planning • Environmental & Field Services
2077 N Street, Suite 400 Lincoln, NE 68510-1068
Phone: 402.420.7217
www.eacg.com
State of NE Certificate of Authorization #CA0008

E & A CONSULTING GROUP, INC.
Engineering Answers

DITTMER COMMERCIAL ADDITION
SANITARY SEWER PLAN
CRETE, NEBRASKA

COVER SHEET

PRELIMINARY NOT FOR CONSTRUCTION

No.	Date	Description
1		

Proj No: 2022.289.001
Date: 08/09/2024
Designed By: RPO
Drawn By: JLJ
Scale: AS SHOWN
Sheet: 1 of 4

Brennan Ferguson 8/15/2024 11:27 AM K:\Projects\2022\289.p01\Engineering\CAD Files\Sanitary Sewer\SHT-SAN-000.dwg

CONSTRUCT SANITARY SEWER MANHOLE

ID	Sanitary Sta.	Type	Details	Coordinates	V.F.
M1	2+01.74		RIM = 1411.74 INV IN = 1393.60 (8") INV OUT = 1393.50 (8")	N: 12849.3050 E: 9938.1452	18.238
M2	4+22.51		RIM = 1409.40 INV IN = 1398.12 (8") INV OUT = 1398.02 (8")	N: 12628.6782 E: 9946.1744	11.378

INSTALL SANITARY SEWER PIPE

ID	Size	Length	Slope
P1	8"	100.00	2.00%
P3	8"	11.74	2.00%
P4	8"	118.26	2.00%
P6	8"	12.51	2.00%

BORE C900 CERTA-LOK RESTRAINED JOINT PIPE

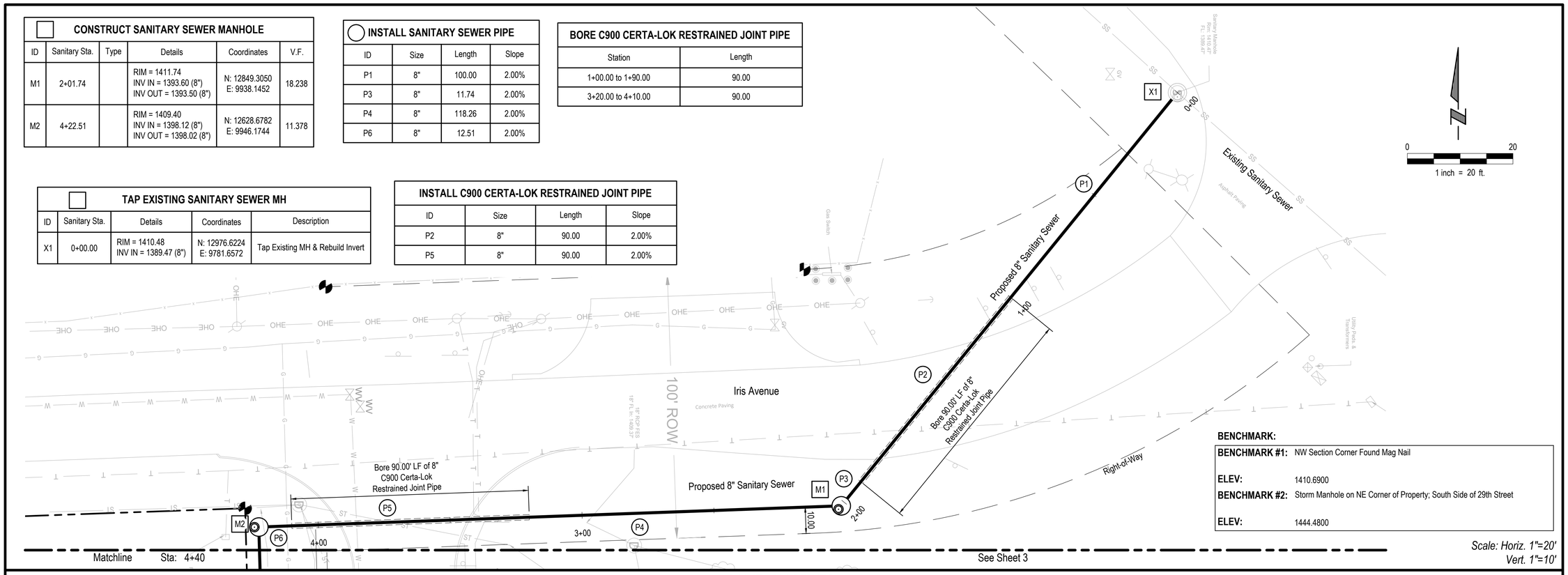
Station	Length
1+00.00 to 1+90.00	90.00
3+20.00 to 4+10.00	90.00

TAP EXISTING SANITARY SEWER MH

ID	Sanitary Sta.	Details	Coordinates	Description
X1	0+00.00	RIM = 1410.48 INV IN = 1389.47 (8")	N: 12976.6224 E: 9781.6572	Tap Existing MH & Rebuild Invert

INSTALL C900 CERTA-LOK RESTRAINED JOINT PIPE

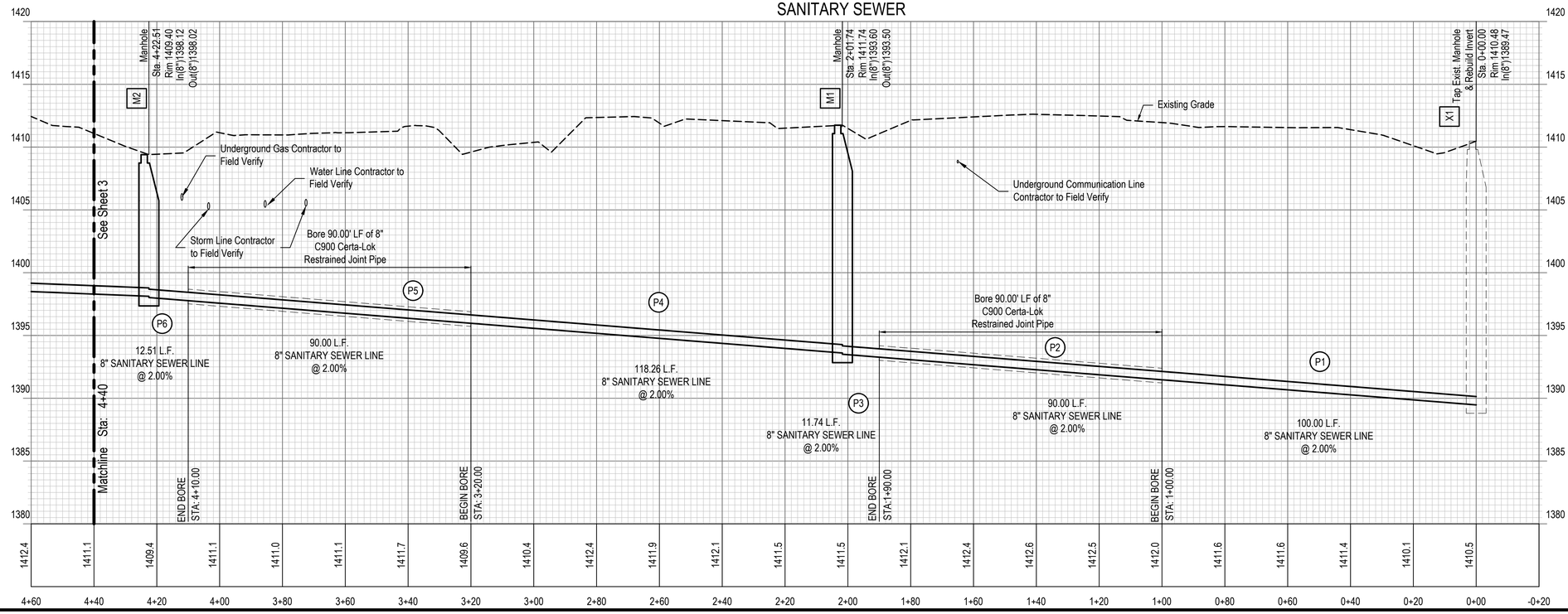
ID	Size	Length	Slope
P2	8"	90.00	2.00%
P5	8"	90.00	2.00%



BENCHMARK:

BENCHMARK #1:	NW Section Corner Found Mag Nail
ELEV:	1410.6900
BENCHMARK #2:	Storm Manhole on NE Corner of Property; South Side of 29th Street
ELEV:	1444.4800

Scale: Horiz. 1"=20'
Vert. 1"=10'



E & A CONSULTING GROUP, INC.
Engineering • Planning • Environmental & Field Services
2077 N Street, Suite 400 Lincoln, NE 68510-1068
Phone: 402.420.7217
www.eacg.com
State of NE Certificate of Authorization #CA0008

E & A CONSULTING GROUP, INC. *Engineering Answers*

DITTMER COMMERCIAL ADDITION
SANITARY SEWER PLAN
CRETE, NEBRASKA

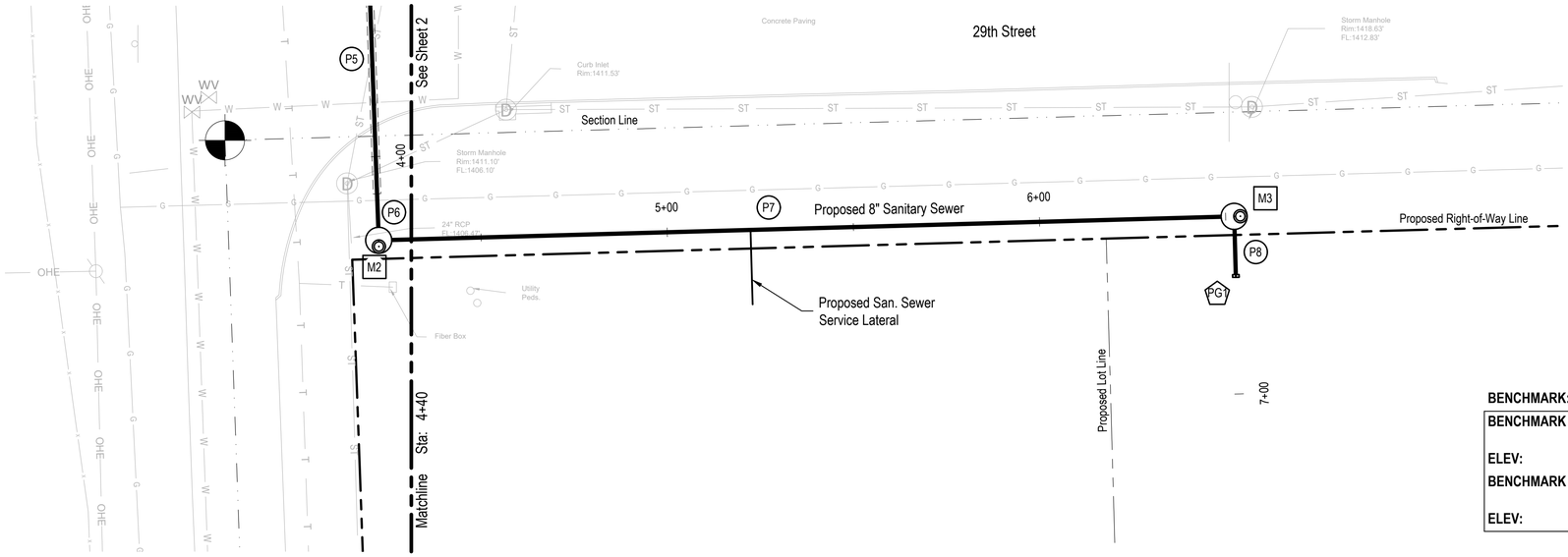
SAN. SEWER PLAN & PROFILE

PRELIMINARY NOT FOR CONSTRUCTION

No.	Date	Description
1	08/09/2024	

Proj No:	2022.269.001
Date:	08/09/2024
Designed By:	RPO
Drawn By:	JLJ
Scale:	AS SHOWN
Sheet:	2 of 4

Brennan Ferguson 8/15/2024 11:27 AM K:\Projects\2022\269\p01\Engineering\CAD Files\Sanitary Sewer\SHT-SAN-000.dwg



0 20

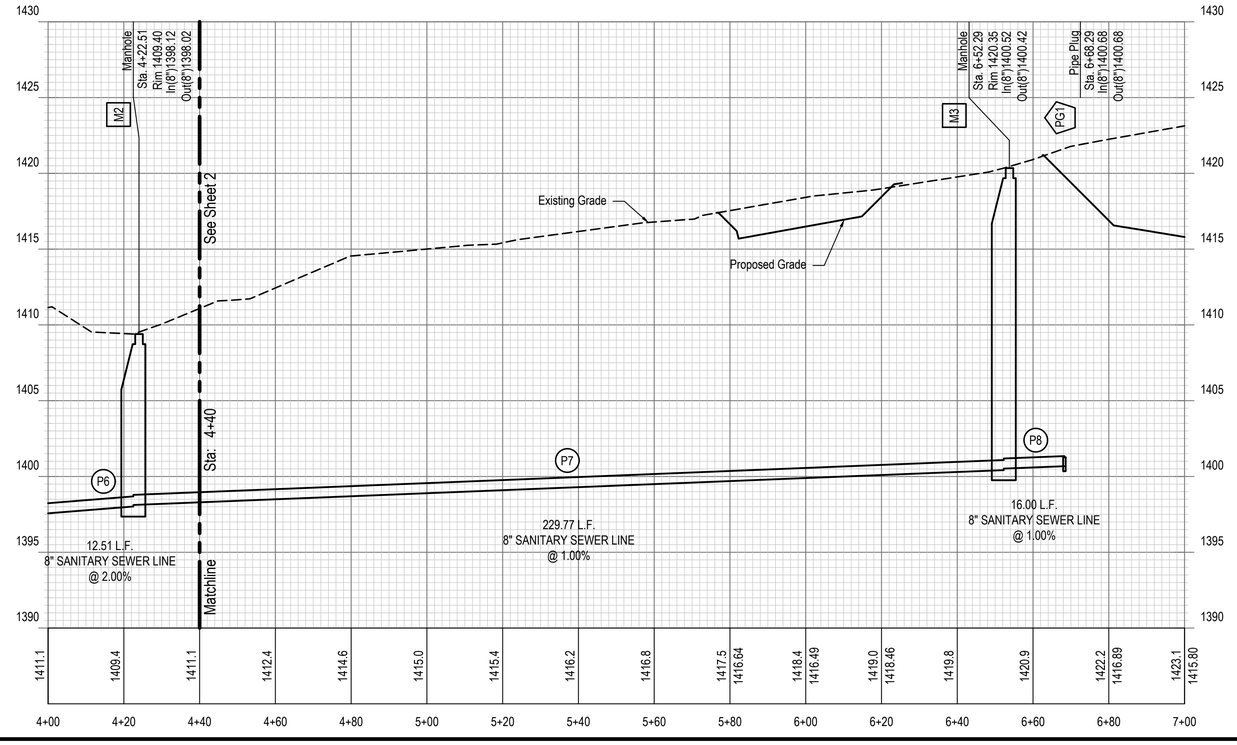
1 inch = 20 ft.

BENCHMARK:

BENCHMARK #1:	NW Section Corner Found Mag Nail
ELEV:	1410.6900
BENCHMARK #2:	Storm Manhole on NE Corner of Property; South Side of 29th Street
ELEV:	1444.4800

Scale: Horiz. 1"=20'
Vert. 1"=10'

SANITARY SEWER



CONSTRUCT SANITARY SEWER MANHOLE

ID	Sanitary Sta.	Type	Details	Coordinates	V.F.
M2	4+22.51		RIM = 1409.40 INV IN = 1398.12 (8") INV OUT = 1398.02 (8")	N: 12628.6782 E: 9946.1744	11.378
M3	6+52.29		RIM = 1420.35 INV IN = 1400.52 (8") INV OUT = 1400.42 (8")	N: 12635.1006 E: 10175.8591	19.928

INSTALL SANITARY SEWER PIPE

ID	Size	Length	Slope
P7	8"	229.77	1.00%
P8	8"	16.00	1.00%

INSTALL SANITARY SEWER PLUG

ID	Sanitary Sta.	Coordinates	Flowline
PG1	6+68.29	N: 12619.11 E: 10176.3064	FL = 1400.68 (8") INV = 1400.68 (8")

E & A CONSULTING GROUP, INC.
Engineering • Planning • Environmental & Field Services
2077 N Street, Suite 400 Lincoln, NE 68510-1068
Phone: 402.420.7217
www.eacg.com
State of NE Certificate of Authorization #CA0008

E & A CONSULTING GROUP, INC. *Engineering Answers*

DITTMER COMMERCIAL ADDITION
SANITARY SEWER PLAN
CRETE, NEBRASKA

SAN. SEWER PLAN & PROFILE

PRELIMINARY NOT FOR CONSTRUCTION

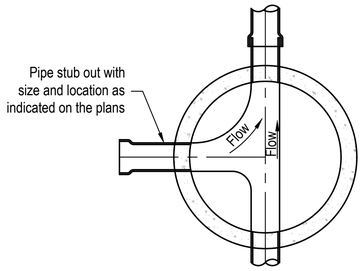
No.	Description	Date
1		

Proj No: 2022.269.001
Date: 08/09/2024
Designed By: RPO
Drawn By: JLJ
Scale: AS SHOWN
Sheet: 3 of 4

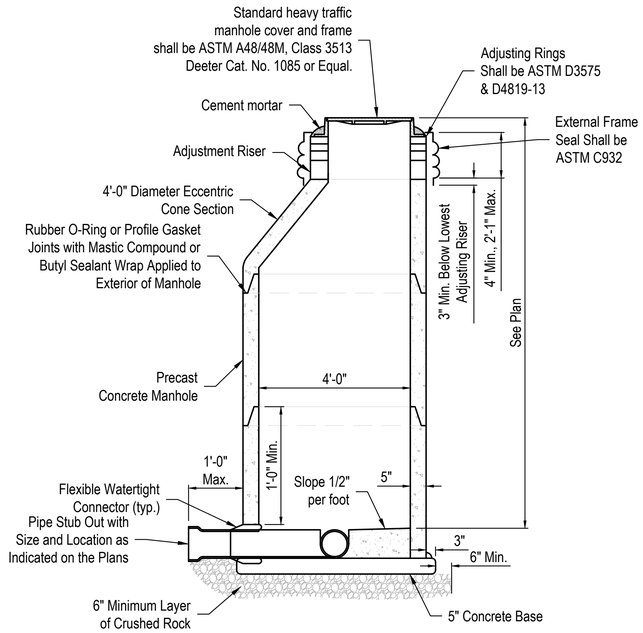
Brennan Ferguson 8/15/2024 11:27 AM K:\Projects\2022\269\p01\Engineering\CAD Files\Sanitary Sewer\SHT-SAN-000.dwg

MANHOLE NOTES:

1. All manholes are to be constructed circular in plan as shown on the drawings.
2. The cast iron manhole ring shall be set in a bed of mortar and carefully adjusted to proposed grade.
3. Manhole ring and cover shall be ASTM.
4. Manhole floor shall be finished to a smooth surface.



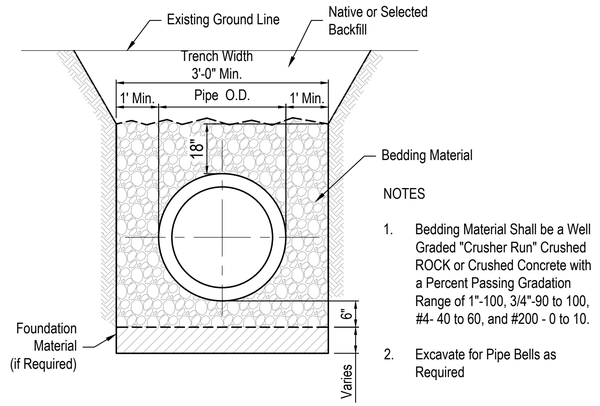
PLAN VIEW



SECTION VIEW

STANDARD 48" MANHOLE DETAIL

NOT TO SCALE



NOTES

1. Bedding Material Shall be a Well Graded "Crusher Run" Crushed ROCK or Crushed Concrete with a Percent Passing Gradation Range of 1"-100, 3/4"-90 to 100, #4- 40 to 60, and #200 - 0 to 10.
2. Excavate for Pipe Bells as Required

PIPE BEDDING DETAIL FOR SAN. SEWER

NOT TO SCALE

E & A CONSULTING GROUP, INC.
Engineering • Planning • Environmental & Field Services
2077 N Street, Suite 400 Lincoln, NE 68510-1068
Phone: 402.420.7217
www.eacg.com
State of NE Certificate of Authorization #CA0008

E & A CONSULTING GROUP, INC. *Engineering Answers*

DITTMER COMMERCIAL ADDITION
SANITARY SEWER PLAN
CRETE, NEBRASKA

SANITARY DETAILS

PRELIMINARY NOT FOR CONSTRUCTION

No.	Date	Description
1		

Proj No: 2022.289.001
Date: 08/09/2024
Designed By: RPO
Drawn By: JLJ
Scale: AS SHOWN
Sheet: 4 of 4

Brennan Ferguson 8/15/2024 11:27 AM K:\Projects\2022\289.001\Engineering\CAD Files\Sanitary Sewer\SHT-SAN-000.dwg