



ENGINEER'S REPORT
Paving & Utility District 2021-1
CITY PROJECT 4585

Project Background

This project was first initiated to provide a shovel ready project to upgrade the existing 1st Street NW rural asphalt roadway into a fully compliant City of Minot local road that would serve the impending development of the Magic City Discovery Center (MCDC). The project began as a Minot Park District general assessment project with the final design completed by our engineering consultant (AE2S) while under contract to a 3rd party working on behalf of the Minot Park District. The plans and specifications were previously submitted to City Engineering Department staff and were approved on 19 May 2020 in anticipation future construction to occur within 1 calendar year.

In late 2020, the MCDC received US Department of Defense grant funding that allowed the MCDC board of directors to authorize final design plans for the MCDC, retention of a construction manager, and to solicit public bids for construction. This expected but quick success required all parties to evaluate the timing and sequencing of various community activities.

For myriad reasons that serve the larger common interest of the community, the project has been transferred over to the City of Minot for construction. The Petition for Special Assessment Improvement is attached. The City of Minot has entered into an agreement in principle with AE2S to finalize various sundry design tasks to transition the previously approved construction plans, bidding documents, and construction documents to City of Minot forms, and to provide bidding and construction phase engineering services. The design work has been completed.

Draft versions of bidding documents, construction documents, and an engineering agreement have also been completed by AE2S.

Proposed Improvements

An overview of the project plans and district boundary are attached.

The project will remove approximately 2,000 LF of existing 24' wide asphalt rural road section on 1st St NW from 19th Ave NW to 15th Ave NE and replace it with City of Minot Standard 31' road. Other beneficial activities of the Work include, but is not limited to the following:

- Construction of a regional storm water collection system to collect storm water and route it to a regional storm water pond
- Construction of a regional detention pond and outlet structures that will receive storm water from the road way and the MCDC site, thereby freeing up land area for the MCDC to construct parking and other site amenities; the pond will also provide



storm water quality and flow detention to further compliance with City, State, and Federal water quality rules

- Construction of sanitary sewer mains in accordance with City of Minot standards, and service laterals that will connect to the MCDC sanitary system and to future park developments contemplated by the Minot Park District
- Construction of water mains in accordance with City of Minot standards, and service laterals that will connect to the MCDC potable domestic and potable fire suppression water utilities, and to future park developments contemplated by the Minot Park District
- Construction of LED street lighting in accordance with City of Minot standards, in an area where existing lighting does not comply with Minot standards
- Improvements to existing parking areas owned by the Minot Park District that will serve the MCDC, thereby relieving them of site constraints that would reduce their capacity to construct the facility and site amenities to the level needed to maximize the chance of operational success
- Reconstruction of recreational sport field features where the necessary alignment of the road right of way impacted the field; the impact is limited to one ballfield at the Minot Park District Sertoma complex.

The project is phased into two portions of work during the 2021 construction season. The date of Substantial Completion is established as 30 October 2021, at which time the roads and utilities will be complete, leaving only the sidewalks and landscaping to complete in 2022. The date of Final Completion is established as 30 June 2022.

The work in 2021 is phased into two milestone dates that are timed and coordinated with the MCDC construction project. Three milestone dates define the project completion schedule:

- Milestone 1: Completion of underground utilities, including storm water pond, south of project station 9+00, no later than 21 June 2021
- Milestone 2: Completion entire road south of project station 9+00, no later than 04 July 2021
- Milestone 3: Project Substantial Completion to include all work except sidewalks, shared use paths, final grass seeding and grow-in, on or before 31 October 2021
- Final Completion no later than 30 June 22

Standard liquidated damages are included in the construction contract.

Subject to Council authorization, bid advertisements are scheduled to start on 22 January 2021, with a proposed bid opening date of 23 February 2021. Bids will be received and publicly opened at City Hall per normal City policy.



Project Justification and Benefits

The project is necessary to provide municipal utility services and adequate roadway access to the MCDC development. A project schedule is attached.

The project will also spur future development of a new park in the area at the intersection of 19th Ave NE and 1st St NW, called Overlook Park.

Cost Estimate

A detailed cost estimate has been prepared and is attached, as summarized below:

CONSTRUCTION TOTAL	\$2,433,590
10% CONTINGENCY	\$243,359
SUBTOTAL	\$2,676,949

Contract	ENGINEERING	\$200,700
8.0%	ADMINISTRATION	\$214,155.92
1.0%	MISCELLANEOUS	\$26,769.49
6.0%	FINANCE	\$160,616.94

TOTAL	\$3,279,191
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A Preliminary Assessment Roll is also attached.

Recommendation

It is recommended that the City Council adopt the following resolutions:

1. Create Paving & Utility District 2021-1
2. Direct preparation of the Engineer's Report
3. Approve the Engineer's Report
4. Direct preparation of Plans and Specifications.
5. Approve the request for AE2S to provide the necessary engineering services and authorize the Mayor to sign the contract on the City's behalf.
6. Waive the Resolution of Necessity and Public Hearing since all of the district area has petitioned for the project.
7. Approve the Plans and Specifications and authorize a call for bids.

Prepared By: _____

Approved By: _____



Attachments

1. Petition for Improvements
2. Project Plan Overview
3. Map of the District
4. Project Schedule
5. Engineer's Opinion of Cost
6. Preliminary Assessment Roll



PETITION FOR SPECIAL ASSESSMENT IMPROVEMENT

TO: City Council
City of Minot, ND

Council Members:

We, the undersigned owners of property abutting the street, avenue, or alley in the City of Minot on which improvement is to be made, as indicated below, do hereby petition the City Council for the following:

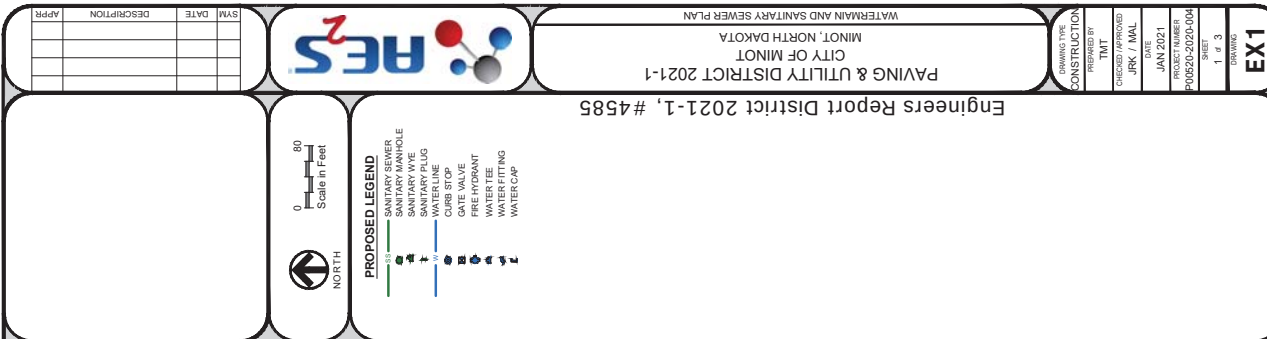
Urban street and lighting construction with sidewalks, water, sewer, storm sewer utilities and incidental items

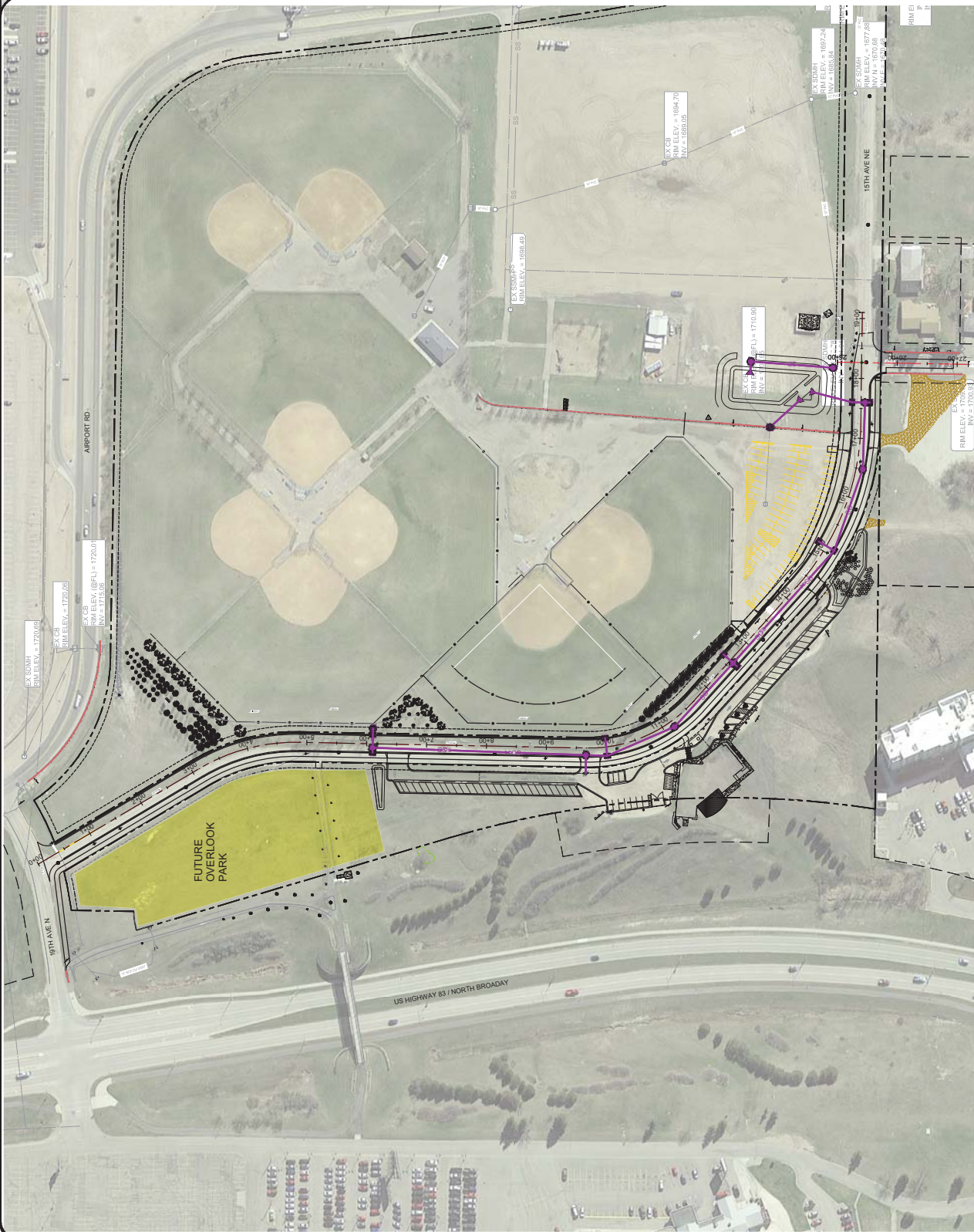
(type of improvement)

Location: 1st St NW and 15th Ave NE/NW from 1st St NE to 19th Ave NW

The work is to be accomplished under the special assessment plan, as provided by law, and paid for by special assessments against benefitting properties and/or with such other financial assistance as may be legally available from other sources.

[illegible]





Advanced Engineering and Environmental Services, Inc. • 1115 16th St SW Ste 2 Minot, ND 58701 • (t) 701-852-4048 (f) 701-852-4054 • www.ae2s.com

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Engineers Report District 2021-1, #4585

STORM SEWER PLAN



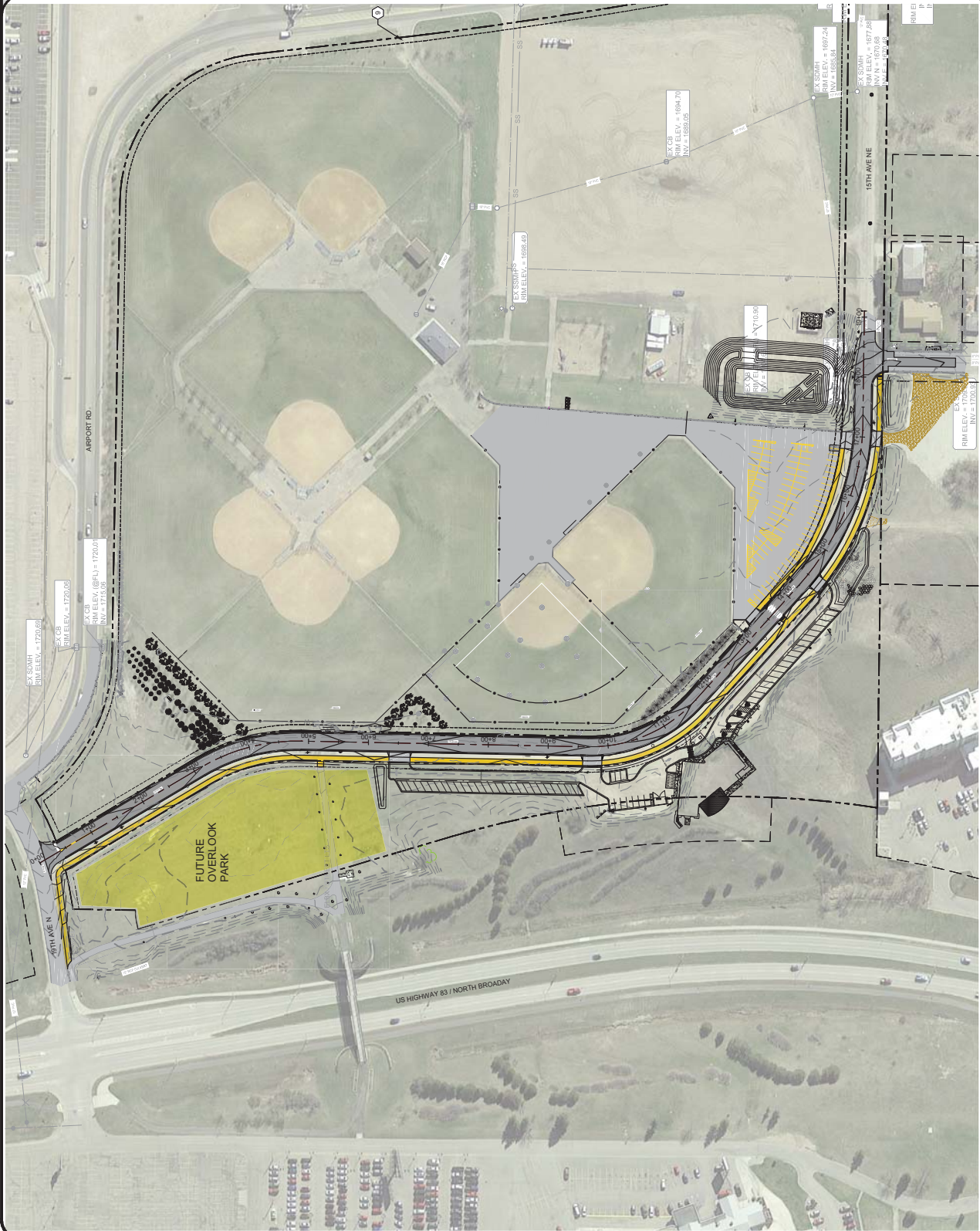
Scale in Feet

0 80

PROPOSED LEGEND

	SD	STORM DRAIN PIPE
		AREA INLET
		BEEHIVE INLET
		CURB INLET
		STORM MANHOLE
		FES OUTFALL

SYM	DATE	DESCRIPTION	APPR



0 30 60
Scale in Feet

- PROPOSED LEGEND**
- BITUMINOUS PAVEMENT
 - CONCRETE PAVEMENT
 - CONCRETE SIDEWALK
 - GRAVEL
 - CONTOUR - IN-SITU
 - CONTOUR - INTERMEDIATE

Engineers Report District 2021-1, # 4585

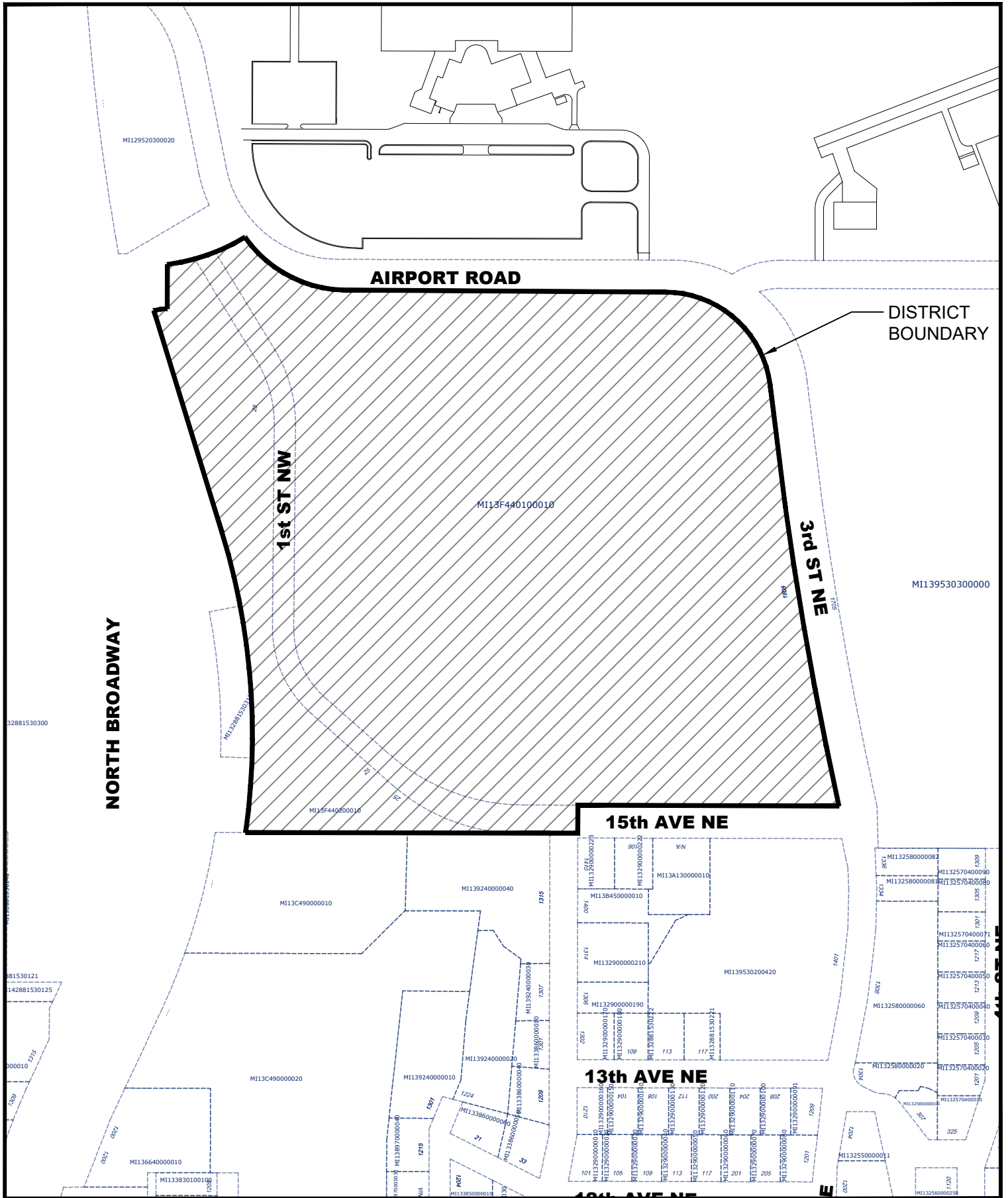
PAVING & UTILITY DISTRICT 2021-1
CITY OF MINOT
MINOT, NORTH DAKOTA
PAVING AND GRADING PLAN



SYM	DATE	DESCRIPTION	APPR

CONSTRUCTION	DATE
PROJECT	JAN 2021
PROJECT NUMBER	P0620-2020-004
SHEET	3
TOTAL SHEETS	3
DESIGNED BY	JRK / MAL
CHECKED / APPROVED	
PROJECT	
TMT	

EX3



AIRPORT ROAD

**DISTRICT
BOUNDARY**

1st ST NW

3rd ST NE

NORTH BROADWAY

15th AVE NE

13th AVE NE

14th AVE NE



Paving and Utility District 2021-1



City of Minot Paving and Utility District 2021-1 Project #4585**AE2S #P00520-2020-004****1st St NW Construction Schedule****07 January 2021****2,000 LF of 31' roadway, asphalt pavement**

Activity	Dates	Notes/Comments
Authorization to proceed	11/4/2020	
Final Design Submitted	1/12/2021	
District Authorization	1/19/2021	January 2021 City Council Meeting
Submit Bid Documents	1/20/2021	To Minot Daily News, plan services; Pending Council approval
Bid advertisement start	1/22/2021	1/22, 1/29, 2/05 run dates
Bid Opening	2/23/2021	11am CST @ City Council Chambers
Bid review/recommendation	3/9/2021	Staff report deadline
Sign Contracts	3/15/2021	City Council meeting
Mobilization/Shops/Certs	5/15/2021	
Field Start - S Utilities strip/clear	5/1/2021	
South Utilities Start	5/8/2021	Includes stormwater pond, Sta 19+00 to sta 7+00
South Utilities complete	6/21/2021	Milestone 1
North Utilities start	7/3/2021	After S utilities complete
North Utilities end	8/14/2021	
South Road start	6/19/2021	Grading & Base
South Road end	7/4/2021	Milestone 2
Restore Field #2 - start	7/4/2021	Reconstruct irrigation, restore fence
Restore Field #2 - end	10/2/2021	Grow-in and maintenance
North Road start, S lighting start	8/14/2021	Grading & Base
North road end	8/28/2021	
C&G, Asphalt Start	8/28/2021	
C&G, Asphalt End, lighting end	10/2/2021	
Substantial Completion	10/30/2021	Milestone 3
Path, Landscaping start	5/10/2022	Approximate, pending weather
Final Completion	6/30/2022	

Paving & Utility District 2021-1, City Project #4585
Construction Cost Estimate
07 January 2021
1st St NW 2,000 LF of 31' roadway, asphalt pavement



Section No.	Item No.	Description	Unit	Qty	Unit Cost	Cost
Suppl	1	CONTRACT BOND	LS	1	\$50,000	\$ 50,000
1100	2	MOBILIZATION	LS	1	\$35,000	\$ 35,000
1100	3	TRAFFIC CONTROL - TYPE 1	LS	1	\$9,200	\$ 9,200
1200	4	STORM WATER MANAGEMENT	LS	1	\$6,000	\$ 6,000
1200	5	SILT FENCE - SUPPORTED	LF	3,470	\$3.25	\$ 11,277
1200	6	STABILIZED CONSTRUCTION ENTRANCE	EA	1	\$3,800	\$ 3,800
1200	7	STORM DRAIN INLET PROTECTION	EA	11	\$250.00	\$ 2,750
1200	8	EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT	SY	3,925	\$1.75	\$ 6,869
1200	9	DITCH CHECK	LF	120	\$3.50	\$ 420
1500	10	REMOVE BITUMINOUS PAVEMENT	SY	7,549	\$10.00	\$ 75,488
1500	11	REMOVE CONCRETE PAVEMENT	SY	3	\$150.00	\$ 465
1500	12	REMOVE CURB & GUTTER	LF	489	\$700	\$ 342,300
1500	13	REMOVE EXISTING PIPE	LF	338	\$25.00	\$ 8,450
1500	14	REMOVE MANHOLE	EA	1	\$1,500	\$ 1,500
1500	15	SALVAGE & REINSTALL FENCE	LF	505	\$15.00	\$ 7,581
1500	16	SALVAGE & REINSTALL SIGN	EA	5	\$125.00	\$ 625
1600	17	REMOVE TREE	EA	19	\$200	\$ 3,800
1800	18	COMMON EXCAVATION	CY	11,410	\$10.50	\$ 119,805
1800	19	IMPERVIOUS FILL	CY	940	\$28.00	\$ 26,320
1800	20	TOPSOIL - IMPORT	CY	1,700	\$22.00	\$ 37,400
1900	21	12 INCH SUBGRADE PREPARATION	SY	7,184	\$2.25	\$ 16,164
1900	22	GEOSYNTHETIC MATERIAL - R1	SY	7,184	\$2.50	\$ 17,960
2100	23	WATER MAIN PIPE - 4" - PVC	LF	55	\$58.00	\$ 3,190
2100	24	WATER MAIN PIPE - 6" - PVC	LF	308	\$75.00	\$ 23,123
2100	25	WATER MAIN PIPE - 8" - PVC	LF	1,903	\$100.00	\$ 190,280
2100	26	FITTINGS	LB	2,394	\$1.00	\$ 2,394
2100	27	VALVE & BOX - 4"	EA	1	\$2,000	\$ 2,000
2100	28	VALVE & BOX - 6"	EA	8	\$2,500	\$ 20,000
2100	29	VALVE & BOX - 8"	EA	2	\$3,000	\$ 6,000
2100	30	FIRE HYDRANT	EA	5	\$6,000	\$ 30,000
2100	31	TAPPING GATE VALVE & SLEEVE - 8"	EA	1	\$3,900	\$ 3,900
2100	32	CONNECT TO EXISTING WATER MAIN	EA	2	\$3,700	\$ 7,400
2300	33	SANITARY SEWER PIPE - 8" PVC	LF	1,708	\$70.00	\$ 119,560
2300	34	MANHOLE STRUCTURE - 48"	EA	9	\$5,500	\$ 49,500
2300	35	MANHOLE OVERDEPTH - 48"	LF	12.00	\$200	\$ 2,400
2300	36	WYES - 8"x6"	EA	1	\$250.00	\$ 250
2300	37	WYES - 8"x8"	EA	1	\$250.00	\$ 250
2300	38	CONNECT TO EXISTING STRUCTURE	EA	1	\$2,000	\$ 2,000
2400	39	PVC SERVICE PIPE - 6"	LF	85	\$60.00	\$ 5,070
2400	40	PVC SERVICE PIPE - 8"	LF	66	\$75.00	\$ 4,913
2700	41	STORM SEWER PIPE - 12" PVC SDR 26	LF	66	\$75.00	\$ 4,950
2700	42	STORM SEWER PIPE - 15" RCP CL III	LF	139	\$120.00	\$ 16,673
2700	43	STORM SEWER PIPE - 18" RCP CL III	LF	356	\$130.00	\$ 46,332
2700	44	STORM SEWER PIPE - 24" RCP CL III	LF	487	\$140.00	\$ 68,219
2700	45	STORM SEWER PIPE - 30" RCP CL III	LF	252	\$150.00	\$ 37,866
2700	46	STORM SEWER PIPE - 36" RCP CL III	LF	343	\$160.00	\$ 54,947
2700	47	CATCH BASIN - 24"x36"	EA	6	\$2,700	\$ 16,200
2700	48	CATCH BASIN MANHOLE - 30"	EA	1	\$5,100	\$ 5,100
2700	49	CATCH BASIN MANHOLE - 48"	EA	1	\$5,500	\$ 5,500
2700	50	CATCH BASIN MANHOLE - 60"	EA	2	\$6,500	\$ 13,000

2700	51	MANHOLE STRUCTURE - 48"	EA	3	\$5,500	\$	16,500
2700	52	MANHOLE STRUCTURE - 60"	EA	3	\$6,500	\$	19,500
2700	53	STRUCTURE OVERDEPTH - 60"	LF	2.00	\$200.00	\$	400
2700	54	FLARED END SECTION WITH TRASH GUARD - 12"	EA	1	\$2,200	\$	2,200
2700	55	FLARED END SECTION WITH TRASH GUARD - 24"	EA	1	\$2,600	\$	2,600
2700	56	FLARED END SECTION WITH TRASH GUARD - 36"	EA	1	\$3,200	\$	3,200
2700	57	RIP RAP - GRADE I	CY	22	\$110.00	\$	2,420
2900	58	AGGREGATE BASE, CLASS 5	TN	4,546	\$20.00	\$	90,925
3000	59	BITUMINOUS TACK COAT	GAL	597	\$2.50	\$	1,492
3000	60	HOT MIX ASPHALT (MHA) FAA 43, PG 58S-28	TN	1,550	\$128.00	\$	198,400
3100	61	4IN NON-REINFORCED CONCRETE PAVEMENT CL AE	SY	21	\$45.00	\$	930
3200	62	CONCRETE CURB & GUTTER	LF	3,552	\$38.00	\$	134,976
3300	63	DRIVEWAY PAVEMENT - 6" CL AE	SY	321	\$85.00	\$	27,313
3300	64	CONCRETE SIDEWALK - 4" CL AE	SY	1,934	\$45.00	\$	87,040
3300	65	DETECTABLE WARNING PANEL	SF	48	\$50.00	\$	2,400
3400	66	SIGNS	SF	32	\$325.00	\$	10,238
3400	67	DELINEATORS	EA	6	\$50.00	\$	300
3500	68	EPOXY PVMT MK 4IN LINE - YELLOW	LF	3,081	\$0.75	\$	2,311
3500	69	EPOXY PVMT MK 24IN LINE - WHITE	LF	71	\$3.00	\$	213
3600	70	TYPE C STREET LIGHT	EA	21	\$6,200	\$	130,200
3600	71	CONDUCTOR - UNDERGROUND (No. 4 RHW/USE, Cu)	LF	8,448	\$2.00	\$	16,896
3600	72	CONDUCTOR - UNDERGROUND (No. 6 THW Grd)	LF	4,224	\$1.50	\$	6,336
3600	73	2-INCH CONDUIT - RIGID	LF	590	\$8.00	\$	4,720
3600	74	TRENCHING	LF	3,070	\$6.00	\$	18,420
3600	75	FEED POINT - TYPE IV	EA	1	\$20,000	\$	20,000
3600	76	SPARE POLE/DAVIT ARM	EA	2	\$2,500	\$	5,000
3600	77	SPARE LUMINAIRE - LED	EA	2	\$1,500	\$	3,000
3700	78	SEEDING CLASS III (HYDROMULCH)	SY	14,052	\$3.75	\$	52,696
SPPL	79	POND OUTLET STRUCTURE - 60"	LS	1	\$8,000	\$	8,000
SPPL	80	FOUL POLE EQUIPMENT	EA	2	\$1,200	\$	2,400
SPPL	81	SPORTS FENCE	LF	325	\$35.00	\$	11,375
SPPL	82	MODIFY IRRIGATION SYSTEM	ALLOW	1	\$12,000	\$	12,000
SPPL	83	XCEL ENERGY PASS THROUGH	ALLOW	1	\$15,000	\$	15,000
CONSTRUCTION TOTAL						\$2,433,590	
10% CONTINGENCY						\$243,359	

Parcel ID	Property Address	Owner	Owner Address	Owner City	Owner State	Owner Zip	Legal	Sq Ft	Petition	Petitioned SF	Front Footage	Side Footage	Assessed Cost
MI113.F44.020.0010	1545 1ST ST NW	MINOT PARK DISTRICT & CITY OF MINOT	PO BOX 538	MINOT	ND	58702-0538	OVERLOOK PARK ADDITIONLOT 1 BLOCK 2	233,348.00	TRUE	233,348.00	1795		\$ 1,677,921.46
MI113.F44.010.0010	1700 3RD ST NE	MINOT PARK DISTRICT & CITY OF MINOT	CIVIC CENTER	MINOT	ND	58703-0000	OVERLOOK PARK ADDITIONLOT 1 BLOCK 1	1,395,584.00	TRUE	1,395,584.00	1713.00		\$ 1,601,269.89
Total								1,628,932.00		1,628,932.00	3,508.00	0.00	\$ 3,279,191.35

Estimated Construction Cost	\$	2,433,590.00	Petitioned SF	1,628,932.00
Contingency, 10%	\$	243,359.00	Total SF	1,628,932.00
Total of All Construction	\$	2,676,949.00	% of property petitioned	100.00%
Engineering, Contract	\$	200,700.00		
City Administration, 8%	\$	214,155.92		
City Finance, 6%	\$	160,616.94		
Miscellaneous, 1%	\$	26,769.49		
Right-of-Way and Easement Acquisition	\$	-		
Total Costs	\$	3,279,191.35		
Estimated Total Assessment Cost Per Lineal Foot	\$	934.78		