



ADDENDUM | No. 1

PROJECT	Prairie Hills Addition Infrastructure Improvements	
BID DATE	11:00 AM	March 3, 2022
BID LOCATION	Banner Associates Office 409 22 nd Ave S. Brookings, SD 57006	
ISSUE DATE	February 25, 2022	
NOTICE	Failure to acknowledge all addenda in the BID may cause rejection of the BID. See Instructions to Bidders.	

SCOPE OF THIS ADDENDUM

The following becomes a part of the original project manual and drawings, taking precedence over the items that may conflict. The bidder shall note receipt and make acknowledgment of the Addendum on his/her bid form, incorporating its provision in his/her bid.

PROJECT MANUAL

The following additions, changes and clarifications have been made to the Project Manual.

C-410 Bid Form

Remove: Remove bid form in its entirety.

Add: Replace with new bid form.

32 9200 Turf and Grasses

Remove: Remove section in its entirety.

Add: Replace with new section.

3.3.C.6 - Seed rate clarified.

4.1.A - "Mulch" is no longer included under "Seeding" bid item.

4.2.A - A new bid item was added for "Mulch".



DRAWINGS

The following additions, changes and clarifications have been made to the Drawings.

Drawing Sheet B-1.

Estimate of Quantities,

Remove: Remove Sheet B-1

Add: New Drawing Sheet

This drawing sheet has been updated with a revised estimate of quantities.

Drawing Sheet G-14.

Seeding Plan,

Remove: Remove Sheet G-14

Add: New Drawing Sheet

This drawing sheet has been updated with a new bid item for mulch.

NOTE

The Plan Holders List and Addendums are available on our website at <http://www.bannerassociates.com> by clicking on **View Bid Information / Project Name / Project Information** link.

Project Manual and Drawing inquiries regarding the work should be directed to:

CONTACT PERSON(S)

Banner Associates, Inc.

Tel 1-605-692-6342 | Toll Free 1-855-323-6342 | Fax 1-605-692-5714

Justin Bucher

Project Engineer

justinb@bannerassociates.com



ATTACHMENTS

1. C-410 Bid Form
2. Section 32 9200
3. Revised Drawing Sheets



Justin Bucher, PE #14123

BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Banner Associates, Inc. on behalf of Prairie Hills, LLC
409 22nd Avenue S
Brookings, SD 57006

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- C. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;

ARTICLE 3—BASIS OF BID—UNIT PRICES

3.01 *Unit Price Bids*

A. Bidder will perform the following Work at the indicated unit prices:

Schedule A - TIF

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Amount
A1	Temporary Traffic Control Signs	70.0	SF	\$	\$
A2	Temporary Traffic Control, Miscellaneous	1	LS	\$	\$
A3	Type 3 Barricade, 8' Single Sided	22	Each	\$	\$
A4	Permanent Traffic Control Signs	128	SF	\$	\$
A5	Sweeping	5	Hr	\$	\$
A6	Mobilization	1	LS	\$	\$
A7	Unclassified Excavation	75,625	CY	\$	\$
A8	Stockpile Excess Material	13,475	CY	\$	\$
A9	Strip, Stockpile, and Replace Topsoil	93,500	CY	\$	\$
A10	Install Topsoil from Existing Stockpile	7,500	CY	\$	\$
A11	8-Inch Scarify and Recompact	11,915	SY	\$	\$

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PRAIRIE HILLS ADDITION INFRASTRUCTURE IMPROVEMENTS
 BROOKINGS, SOUTH DAKOTA

A12	Digout Excavation	200	CY	\$	\$
A13	Subbase Foundation Aggregate	100	Ton	\$	\$
A14	Adjust Manhole Frame and Cover	1	Each	\$	\$
A15	Erosion Control Blanket	500	SY	\$	\$
A16	Silt Fence	7,310	LF	\$	\$
A17	Riprap	105	Ton	\$	\$
A18	Sediment Control at Type S Reinforced Concrete Drop Inlet	8	Each	\$	\$
A19	Construction Entrance	1	Each	\$	\$
A20	Concrete Washout Area	1	Each	\$	\$
A21	Base Course	6,300	Ton	\$	\$
A22	Geotextile Fabric	11,915	SY	\$	\$
A23	Asphalt Concrete	2,480	Ton	\$	\$
A24	4" White Pavement Marking	60	LF	\$	\$
A25	12" White Pavement Marking	224	LF	\$	\$
A26	White Pavement Marking, Arrow	4	Each	\$	\$
A27	Yellow Pavement Marking, Yield Line	3	Each	\$	\$
A28	6" Colored PCC Pavement	427	SY	\$	\$
A29	Concrete Curb and Gutter (Standard)	4,316	LF	\$	\$
A30	Concrete Curb and Gutter (Rollover)	1,880	LF	\$	\$
A31	4" Concrete Sidewalk	2,633	SF	\$	\$
A32	Type 1 Detectable Warning Panel	120	SF	\$	\$
A33	Developer Seed Mix	25.7	Acres	\$	\$
A34	Alfalfa Mix	16.7	Acres	\$	\$
A35	Wetland Seed Mix	3.9	Acres	\$	\$
A36	Mulch	46.3	Acres	\$	\$
A37	18" RCP Storm Sewer Pipe	758	LF	\$	\$
A38	36" RCP Storm Sewer Pipe	282	LF	\$	\$
A39	6' Sioux Falls Drop Inlet	8	Each	\$	\$
A40	10' Sioux Falls Drop Inlet	2	Each	\$	\$
A41	18" RC Flared End	2	Each	\$	\$
A42	36" RC Flared End	6	Each	\$	\$
A43	Trench Stabilization Material	100	Ton	\$	\$
A44	Imported Trench Backfill Material	100	Ton	\$	\$
A45	6" Watermain	176	LF	\$	\$
A46	8" Watermain	2,498	LF	\$	\$
A47	8" MJ Bend (11.25 Degree) w/ Joint Restraints	6	Each	\$	\$
A48	8" MJ Bend (45 Degree) w/ Joint Restraints	1	Each	\$	\$
A49	6" MJ Cap w/ Joint Restraints	3	Each	\$	\$
A50	8" x 6" MJ Tee w/ Joint Restraints	8	Each	\$	\$
A51	8" x 8" MJ Tee w/ Joint Restraints	1	Each	\$	\$
A52	12" x 8" MJ Reducer w/ Joint Restraints	1	Each	\$	\$
A53	6" Foster Adaptor	5	Each	\$	\$
A54	8" MJ Sleeve w/ Joint Restraints	1	Each	\$	\$
A55	6" MJ Gate Valve & Box W/ Joint Restraints (Contractor Furnish/Install)	2	Each	\$	\$
A56	6" MJ Gate Valve (BMU Furnished)	5	Each	\$	\$

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A57	8" MJ Gate Valve (BMU Furnished)	5	Each	\$	\$
A58	Fire Hydrant - 7'-6" Bury Depth (BMU Furnished)	5	Each	\$	\$
A59	1" Water Service Piping	343	LF	\$	\$
A60	1" Curb Stop & Box	12	Each	\$	\$
A61	8" x 1" Water Service Saddle Tap & Corp	12	Each	\$	\$
A62	8" Dia Gravity Sewer Pipe	1,812	LF	\$	\$
A63	6" Dia Gravity Sewer Pipe	124	LF	\$	\$
A64	4" Dia Gravity Sewer Pipe	324	LF	\$	\$
A65	8"x4" Sanitary Sewer Wye	12	Each	\$	\$
A66	8"x6" Sanitary Sewer Wye	3	Each	\$	\$
A67	48" Dia Sanitary Sewer Manhole	6	Each	\$	\$
A68	Additional Manhole Vertical Feet	31.2	VF	\$	\$
A69	Connect to Existing Sanitary Sewer Manhole	1	Each	\$	\$
A70	Manhole Construction Plate Marker	7	Each	\$	\$
Subtotal of All Unit Price Bid Items:					\$

Schedule B

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Amount
B1	Mobilization	1	LS	\$	\$
B2	8-Inch Scarify and Recompact	9,500	SY	\$	\$
B3	Digout Excavation	100	CY	\$	\$
B4	Subbase Foundation Aggregate	100	Ton	\$	\$
B5	Adjust Water Valves	1	Each	\$	\$
B6	Adjust Manhole Frame and Cover	5	Each	\$	\$
B7	Retaining Wall	994	LF	\$	\$
B8	Riprap	15	Ton	\$	\$
B9	Sediment Control at Type S Reinforced Concrete Drop Inlet	15	Each	\$	\$
B10	Base Course	4,250	Ton	\$	\$
B11	Geotextile Fabric	9,500	SY	\$	\$
B12	Asphalt Concrete	1,600	Ton	\$	\$
B13	Concrete Curb and Gutter (Rollover)	3,831	LF	\$	\$
B14	Concrete Curb and Gutter (Custom Rollover)	1,194	LF	\$	\$
B15	5' Valley Gutter	340	SF	\$	\$
B16	Concrete Fillet Section	780	SF	\$	\$
B17	4" Concrete Sidewalk	17,514	SF	\$	\$
B18	Type 1 Detectable Warning Panel	50	SF	\$	\$
B19	12" RCP Storm Sewer Pipe	102	LF	\$	\$
B20	18" RCP Storm Sewer Pipe	392	LF	\$	\$
B21	6' Sioux Falls Drop Inlet	5	Each	\$	\$
B22	24" Dia. Area Inlet	1	Each	\$	\$
B23	18" RC Flared End	1	Each	\$	\$
B24	Connect to Existing Drop Inlet	1	Each	\$	\$
B25	Trench Stabilization Material	100	Ton	\$	\$

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B26	Imported Trench Backfill Material	100	Ton		
B27	6" Watermain	116	LF	\$	\$
B28	8" Watermain	2,295	LF	\$	\$
B29	8" MJ Bend (11.25 Degree) w/ Joint Restraints	8	Each	\$	\$
B30	8" MJ Bend (90 Degree) w/ Joint Restraints	1	Each	\$	\$
B31	8" x 6" MJ Tee w/ Joint Restraints	6	Each	\$	\$
B32	8" x 8" MJ Tee w/ Joint Restraints	1	Each	\$	\$
B33	8" x 6" MJ Reducer w/ Joint Restraints	2	Each	\$	\$
B34	6" Foster Adapter	4	Each	\$	\$
B35	8" MJ Sleeve w/ Joint Restraints	2	Each	\$	\$
B36	6" MJ Gate Valve & Box W/ Joint Restraints (Contractor Furnish/Install)	1	Each	\$	\$
B37	8" MJ Gate Valve & Box W/ Joint Restraints (Contractor Furnish/Install)	1	Each	\$	\$
B38	6" MJ Gate Valve & Box W/ Joint Restraints (BMU Furnished)	5	Each	\$	\$
B39	8" MJ Gate Valve & Box W/ Joint Restraints (BMU Furnished)	3	Each	\$	\$
B40	Fire Hydrant w/ Joint Restraints – 7'-6" Bury Depth (Contractor Furnished/Install)	2	Each	\$	\$
B41	Fire Hydrant w/ Joint Restraints (BMU Furnished)	6	Each	\$	\$
B42	1" Water Service Piping	752	LF	\$	\$
B43	1" Curb Stop & Box	30	Each	\$	\$
B44	8" x 1" Water Service Saddle Tap & Corp	30	Each	\$	\$
B45	Remove and Salvage Fire Hydrant	2	Each	\$	\$
B46	Remove Water Valve	1	Each	\$	\$
B47	8" Dia Gravity Sewer Pipe	1,184	LF	\$	\$
B48	4" Dia Gravity Sewer Pipe	795	LF	\$	\$
B49	8"x 4" Sanitary Sewer Wye	20	Each	\$	\$
B50	12"x4" Inserta Tee	10	Each	\$	\$
B51	48" Dia Sanitary Sewer Manhole	5	Each	\$	\$
B52	Additional Manhole Vertical Feet	22.2	VF	\$	\$
B53	Connect to Existing Sanitary Sewer Manhole	1	Each	\$	\$
B54	Manhole Construction Plate Marker	9	Each	\$	\$
Subtotal of All Unit Price Bid Items:					\$

Schedule A Subtotal:	\$
Schedule B Subtotal:	\$
Project Total:	\$

B. Bidder acknowledges that:

1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
2. estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—TIME OF COMPLETION

4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

A. This Bid will remain subject to acceptance for 30 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder's Representations*

A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 *Bidder's Certifications*

- A. The Bidder certifies the following:
 1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
 2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
 3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

Bidder's Contact:

Name:

(typed or printed)

Title:

(typed or printed)

Phone:

Email:

Address:

Bidder's Contractor License No.: (if applicable) _____

SECTION 32 9200 – TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications Sections apply to this Section.

1.2 SUMMARY

- A. This section of the Specifications includes the following:
 - 1. Seed Mix
 - 2. Mulching
 - 3. Fertilizer
 - 4. Hydro-mulching (hydro-seeding)
- B. Related Sections include the following:
 - 1. Division 31; Section “Site Clearing” for temporary erosion and sedimentation control measures, site stripping, stripping and stockpiling topsoil, of above – and below – grade improvements and utilities.
 - 2. Division 31; Section “Roadway Excavation and Embankment” for soil materials, excavating, and site grading.
 - 3. Division 32; Section “Erosion and Sedimentation Controls” for erosion control blanket, silt fence, erosion bales, and placement of materials.

1.3 STANDARD SPECIFICATION REFERENCE

- A. The Contractor shall meet all the requirements of the applicable chapters of Title 38 - Agriculture and Horticulture of the South Dakota Codified Laws.
- B. The seeding work to be performed under this Contract shall be governed by the “Standard Specifications for Roads and Bridges”, South Dakota Department of Transportation, Current Edition, which specifications shall apply as though printed in full with these Contract Documents.

PART 2 - PRODUCTS

2.1 PERMANENT SEED MIXTURE

- A. Seed shall be labeled in accordance with U.S. Department of Agriculture Rules and Regulations and shall be furnished in sealed containers. Labels shall indicate compliance with the Federal Seed Act.
 - 1. Pure Live Seed (PLS) shall be determined using the following equation:

$$\%PLS = \%Germination \times \% Purity$$

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SECTION 32 9200 – TURF AND GRASSES

2. The PLS shall be used in the specified grass seed mixtures.

B. Lot and Boulevard Seed Mix (Permanent Seeding)

1. Millborn's Custom Developer's Mix or Owner/Engineer approved equal shall consist of the following components
 - 20% Annual Ryegrass
 - 30% Creeping Red Fescue
 - 10% Kentucky Bluegrass
 - 40% Perennial Ryegrass
2. Seeding Rate = 100 #PLS/acre

C. Wetland Seed Mix

1. Millborn's Economy Emergent Mix or Owner/Engineer approved equal shall consist of the following components
 - 15% Fowl Bluegrass
 - 11% Switchgrass
 - 8% Brown Fox Sedge
 - 7% Fowl Mannagrass
 - 7% Big Bluestem
 - 7% Indiangrass
 - 5% Virginia Wildrye
 - 5% Wool Grass
 - 4% Dudley's Rush
 - 4% Dark Green Bulrush
 - 4% Canada Bluejoint
 - 3% Monkey Flower
 - 20% Other Wildflower and Grass Species
2. Seeding Rate = 15 #PLS/acre

D. Alfalfa Mix

1. Millborn's The Stockman Alfalfa or Owner/Engineer approved equal shall consist of the following components
 - 60% Final Answer Alfalfa
 - 20% Orchardgrass
 - 20% Tall Forage Fescue
2. Seeding Rate = 20 #PLS/acre

2.2 FERTILIZER

- A. Apply 24-5-10 fertilizer 50% SCU with Prospect at 150 lbs per acre.

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2.3 MULCH

- A. Mulch shall consist of small grain straw, grass hay, small-stemmed grass, leaf compost, or other approved locally available material. Mulch shall be free of noxious weeds or other seed-bearing weeds that would be detrimental to the seeded area.

- 2.4 Mulch for hydro-mulching shall be produced from wood or recycled paper processed into a fibrous material. The fiber texture shall be sufficient to achieve an erosion resistant product which can be easily pumped with a hydro-mulching machine.

PART 3 - EXECUTION

3.1 INSPECTION AND TESTS

- A. Materials shall be subject to inspection and testing to determine if furnished in accordance with applicable Federal and State laws and are equal to the requirements stated in the PRODUCTS paragraph.

3.2 SOIL PREPARATION

- A. Topsoil previously placed on areas to be seeded shall be smoothed, then tilled to a depth of four inches. The soil shall be in a firm but uncompacted condition immediately in advance of the seeding operations. Vegetation and debris unearthed shall be removed. Fertilizer shall be incorporated uniformly into the soil to a depth of not more than 1 inch at the rate of 1 pound of available nitrogen and 1.5 pounds actual phosphate per 1000 sq. ft. for seeded areas. The surface of the seedbed shall conform to the established grades.

3.3 SEEDING

- A. Permanent seeding shall not be done between June 1 and August 1 except as otherwise directed in writing by the Engineer.

- B. Planting Schedule

- 1. Spring: April – June 1
- 2. Fall: August 1 – September 15
- 3. Dormant: November – Freeze Up

- C. Seeding Guidelines

- 1. It is desirable to have at least 8” of black topsoil.
- 2. If weeds are a problem, apply a glyphosate product and allow weeds to burn down for at least 7 days.
- 3. Remove rocks larger than 1” and debris. Till the top 4”-6” of soil.
- 4. Firm up the seedbed by raking and/or roll packing. When walked on, you should not sink more than 1”.
- 5. Seed with a special grass drill or hydro-seed.
- 6. Seed at the application rate specified for each seed mix.
- 7. Apply 24-5-10 fertilizer 50% SCU with Prospect at 3 lb/ 1000 sf.
- 8. Apply Mat-Fiber Plus® at 90lb/ 1000 sf.

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- D. Seed shall be sown by means of a disc drill. The drills shall be set for uniform rows not to exceed six inches apart. The seed shall be drilled in a depth of 3/4 to 1 inch. The seed shall be sown in two passes with the second pass perpendicular to the first. Broadcast sowing shall be permitted only in areas inaccessible to drills. Seed shall be sown at the rate of 7 pounds of pure live seed per 1,000 square feet for disturbed lawns. The seed shall be lightly covered by harrowing or raking.
- E. Mulch shall be applied to all seeded areas in a uniform, continuous blanket at the rate of 1½ to 3 tons per acre. Mulch shall be spread in such a manner that the individual stems are not pulverized or broken excessively. After the mulch has been spread it shall be anchored in the soil a minimum of one inch by means of a mulch disk to provide a standing stubble mulch.

3.4 HYDRO-MULCHING

- A. Hydro-mulching (hydro-seeding) shall mix mulch, seed, fertilizer, and water in the tank of a hydro-mulching machine at the specified rates for seed and fertilizer.
- B. Mulch application rates shall be 35-50 pounds per 1000 square feet depending on local weather conditions at the time of placement.

3.5 WATERING

- A. Immediately upon completion of the mulching operation, the seeded areas shall be given one watering unless otherwise directed. Sufficient water shall be applied to penetrate the seedbed to a depth of two (2) inches. All watering shall be done in a manner which will provide uniform coverage but which will not cause erosion or damage to the finished surface. Subsequent watering of seeded areas shall be in compliance with Maintenance; stated below.

3.6 MAINTENANCE

- A. The seeded areas and trees to be replanted shall be watered as necessary, or as directed by the Engineer, and be maintained until all work in the entire contract or designated portions thereof have been completed and accepted. Maintenance shall consist of providing protection against traffic and of repairing any damage. Mulch material that has been dislodged by wind or from other causes shall be replaced and secured.

3.7 REPAIR

- A. If at any time before completion and acceptance of the entire contract work, the seeded areas are damaged by erosion, trespass or other cause, the areas shall be repaired and reseeded as originally specified. Contractor shall be responsible to ensure grass growth in all seeded areas. Any areas of insufficient grass growth shall be re-tilled, seeded, mulched and watered by the Contractor at no additional cost to the Owner.

PART 4 - MEASUREMENT AND PAYMENT

4.1 SEEDING

- A. All seeding of every description, site preparation, mulching, watering, bedding, water for maintenance, fertilizing, seed, seeding, and reseeded, site cleanup and other incidentals required to complete the

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seeding in grassed areas disturbed by construction shall be measured in acres and will be paid for at the Contract unit price per acre for "Seeding", as stipulated in the Bid, which price and payment shall be full compensation for furnishing all materials, tools, plant, equipment and labor to seed, fertilizer, and water areas disturbed in the construction, and to remove all rock and debris, in accordance with the Drawings and Specifications.

4.2 MULCH

- A. All site preparation, mulching, site cleanup and other incidentals required to complete the mulching in grassed areas disturbed by construction shall be measured in acres of mulch applied and will be paid for at the Contract unit price per acre for "Mulching", as stipulated in the Bid, which price and payment shall be full compensation for furnishing all materials, tools, equipment and labor to mulch areas disturbed in the construction, and to remove all rock and debris, in accordance with the Drawings and Specifications.

END OF SECTION 32 9200

PRAIRIE HILLS ADDITION INFRASTRUCTURE IMPROVEMENTS
BROOKINGS, SOUTH DAKOTA
SECTION 32 9200 – TURF AND GRASSES

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ESTIMATE OF QUANTITIES

SCHEDULE A - TIF

NO.	DESCRIPTION	QTY	UNITS
A1	Temporary Traffic Control Signs	70.0	SF
A2	Temporary Traffic Control, Miscellaneous	1	LS
A3	Type 3 Barricade, 8' Single Sided	22	Each
A4	Permanent Traffic Control Signs	128	SF
A5	Sweeping	5	Hr
A6	Mobilization	1	LS
A7	Unclassified Excavation	75625	CY
A8	Stockpile Excess Material	13475	CY
A9	Strip, Stockpile, and Replace Topsoil	93500	CY
A10	Install Topsoil from Existing Stockpile	7500	CY
A11	8-Inch Scarify and Recompact	11915	SY
A12	Digout Excavation	200	CY
A13	Subbase Foundation Aggregate	100	Ton
A14	Adjust Manhole Frame and Cover	1	Each
A15	Erosion Control Blanket	500	SY
A16	Silt Fence	7310	LF
A17	Riprap	105	Ton
A18	Sediment Control at Type S Reinforced Concrete Drop Inlet	8	Each
A19	Construction Entrance	1	Each
A20	Concrete Washout Area	1	Each
A21	Base Course	6300	Ton
A22	Geotextile Fabric	11915	SY
A23	Asphalt Concrete	2480	Ton
A24	4" White Pavement Marking	60	LF
A25	12" White Pavement Marking	224	LF
A26	White Pavement Marking, Arrow	4	Each
A27	Yellow Pavement Marking, Yield Line	3	Each
A28	6" Colored PCC Pavement	427	SY
A29	Concrete Curb and Gutter (Standard)	4316	LF
A30	Concrete Curb and Gutter (Rollover)	1880	LF
A31	4" Concrete Sidewalk	2633	SF
A32	Type 1 Detectable Warning Panel	120	SF
A33	Developer Seed Mix	25.7	Acres
A34	Alfalfa Mix	16.6	Acres
A35	Wetland Seed Mix	3.9	Acres
A36	Mulch	46.2	Acres
A37	18" RCP Storm Sewer Pipe	758	LF
A38	36" RCP Storm Sewer Pipe	282	LF
A39	6' Sioux Falls Drop Inlet	8	Each
A40	10' Sioux Falls Drop Inlet	2	Each
A41	18" RC Flared End	2	Each
A42	36" RC Flared End	6	Each
A43	Trench Stabilization Material	100	Ton
A44	Imported Trench Backfill Material	100	Ton
A45	6" Watermain	176	LF

A46	8" Watermain	2498	LF
A47	8" MJ Bend (11.25 Degree) w/ Joint Restraints	6	Each
A48	8" MJ Bend (45 Degree) w/ Joint Restraints	1	Each
A49	6" MJ Cap w/ Joint Restraints	3	Each
A50	8" x 6" MJ Tee w/ Joint Restraints	8	Each
A51	8" x 8" MJ Tee w/ Joint Restraints	1	Each
A52	12" x 8" MJ Reducer w/ Joint Restraints	1	Each
A53	6" Foster Adaptor	5	Each
A54	8" MJ Sleeve w/ Joint Restraints	1	Each
A55	6" MJ Gate Valve & Box W/ Joint Restraints (Contractor Furnish/Install)	2	Each
A56	6" MJ Gate Valve (BMU Furnished)	5	Each
A57	8" MJ Gate Valve (BMU Furnished)	5	Each
A58	Fire Hydrant - 7'-6" Bury Depth (BMU Furnished)	5	Each
A59	1" Water Service Piping	343	LF
A60	1" Curb Stop & Box	12	Each
A61	8" x 1" Water Service Saddle Tap & Corp	12	Each
A62	8" Dia Gravity Sewer Pipe	1812	LF
A63	6" Dia Gravity Sewer Pipe	124	LF
A64	4" Dia Gravity Sewer Pipe	324	LF
A65	8"x4" Sanitary Sewer Wye	12	Each
A66	8"x6" Sanitary Sewer Wye	3	Each
A67	48" Dia Sanitary Sewer Manhole	6	Each
A68	Additional Manhole Vertical Feet	31.2	VF
A69	Connect to Existing Sanitary Sewer Manhole	1	Each
A70	Manhole Construction Plate Marker	7	Each

B19	12" RCP Storm Sewer Pipe	102	LF
B20	18" RCP Storm Sewer Pipe	392	LF
B21	6' Sioux Falls Drop Inlet	5	Each
B22	24" Dia. Area Inlet	1	Each
B23	18" RC Flared End	1	Each
B24	Connect to Existing Drop Inlet	1	Each
B25	Trench Stabilization Material	100	Ton
B26	Imported Trench Backfill Material	100	Ton
B27	6" Watermain	116	LF
B28	8" Watermain	2295	LF
B29	8" MJ Bend (11.25 Degree) w/ Joint Restraints	8	Each
B30	8" MJ Bend (90 Degree) w/ Joint Restraints	1	Each
B31	8" x 6" MJ Tee w/ Joint Restraints	6	Each
B32	8" x 8" MJ Tee w/ Joint Restraints	1	Each
B33	8" x 6" MJ Reducer w/ Joint Restraints	2	Each
B34	6" Foster Adapter	4	Each
B35	8" MJ Sleeve w/ Joint Restraints	2	Each
B36	6" MJ Gate Valve & Box W/ Joint Restraints (Contractor Furnish/Install)	1	Each
B37	8" MJ Gate Valve & Box W/ Joint Restraints (Contractor Furnish/Install)	1	Each
B38	6" MJ Gate Valve (BMU Furnished)	5	Each
B39	8" MJ Gate Valve (BMU Furnished)	3	Each
B40	Fire Hydrant w/ Joint Restraints - 7'-6" Bury Depth (Contractor Furnish/Install)	2	Each
B41	Fire Hydrant - 7'-6" Bury Depth (BMU Furnished)	6	Each
B42	1" Water Service Piping	752	LF
B43	1" Curb Stop & Box	30	Each
B44	8" x 1" Water Service Saddle Tap & Corp	30	Each
B45	Remove and Salvage Fire Hydrant	2	Each
B46	Remove Water Valve	1	Each
B47	8" Dia Gravity Sewer Pipe	1184	LF
B48	4" Dia Gravity Sewer Pipe	795	LF
B49	8"x4" Sanitary Sewer Wye	20	Each
B50	12"x4" Inserta Tee	10	Each
B51	48" Dia Sanitary Sewer Manhole	5	Each
B52	Additional Manhole Vertical Feet	22.2	VF
B53	Connect to Existing Sanitary Sewer Manhole	1	Each
B54	Manhole Construction Plate Marker	9	Each

SCHEDULE B

NO.	DESCRIPTION	QTY	UNITS
B1	Mobilization	1	LS
B2	8-Inch Scarify and Recompact	9500	SY
B3	Digout Excavation	100	CY
B4	Subbase Foundation Aggregate	100	Ton
B5	Adjust Water Valves	1	Each
B6	Adjust Manhole Frame and Cover	5	Each
B7	Retaining Wall	994	LF
B8	Riprap	15	Ton
B9	Sediment Control at Type S Reinforced Concrete Drop Inlet	15	Each
B10	Base Course	4250	Ton
B11	Geotextile Fabric	9500	SY
B12	Asphalt Concrete	1600	Ton
B13	Concrete Curb and Gutter (Rollover)	3831	LF
B14	Concrete Curb and Gutter (Custom Rollover)	1194	LF
B15	5' Valley Gutter	340	SF
B16	Concrete Fillet Section	780	SF
B17	4" Concrete Sidewalk	17514	SF
B18	Type 1 Detectable Warning Panel	50	SF



ESTIMATE OF QUANTITIES
 BROOKINGS, SOUTH DAKOTA
 PROJECT / SHEET TITLE: PRAIRIE HILLS ADDITION INFRASTRUCTURE IMPROVEMENTS
 DESCRIPTION: ESTIMATE OF QUANTITIES
 REV. DATE 2/25/2022
 01 UPDATED ESTIMATE OF QUANTITIES

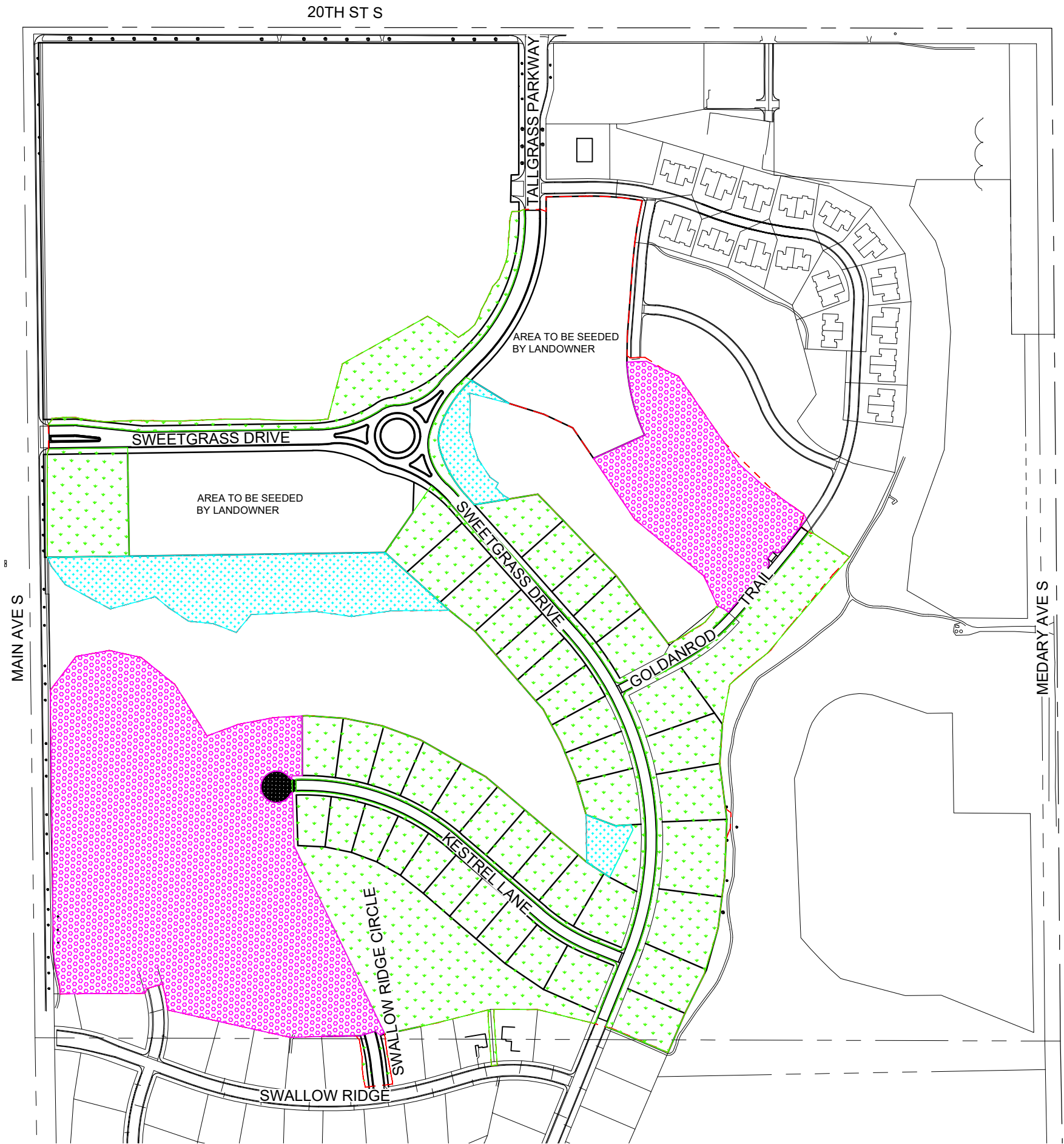


JOB No.: 20977-01
 DATE: FEBRUARY 2022
 ENG / ARCH: JDB
 DESIGNER: JDB
 TECHNICIAN: JLU
 SCALE REDUCTION BAR: 0 1/2" 1"

SHEET No.: **B-1**

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EROSION AND SEDIMENT CONTROL
 25.7 ACRES - DEVELOPER'S SEED MIX
 16.6 ACRES - ALFALFA
 3.9 ACRES - WETLAND SEED MIX
 46.3 ACRES - MULCH

LEGEND

	DEVELOPER'S SEED MIX
	ALFALFA
	WETLAND SEED MIX



PROJECT / SHEET TITLE:
PRAIRIE HILLS ADDITION INFRASTRUCTURE IMPROVEMENTS

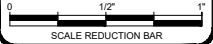
SEEDING PLAN

BROOKINGS, SOUTH DAKOTA

REV. DATE DESCRIPTION
 01 2/25/2022 ADD MULCH BID ITEM



JOB No.: 20977-01
 DATE: FEBRUARY 2022
 ENG / ARCH: JDB
 DESIGNER: JDB
 TECHNICIAN: JLU



SHEET No.: **G-14**