

WATER PERMIT NO. 2034-1

Name of Applicant: City of Sturgis

Address: 1057 Dudley Street, Sturgis SD 57785

Phone: 605-347-3916

Amount of Water Claimed: 724 AF

Total Acres: N/A

Source of Water Supply: Groundwater

Water to be used for: Municipal

County: Meade

Type of Waste Disposal System:

Location: Approx. 1/4 mile southeast of Sturgis SD

PRIORITY

Date Received: 12-14-23

Application/License Fee: \$1,350.00

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks: Future Use Reservation

Diversion Point: SE 1/4 SW 1/4 Sec 15-T5N-R5E

Land to be Irrigated: N/A

Depth of Well:

Well Driller:

Remarks:

Type of Map: topo

			15		
			*		

Reviewed and the Number Assigned on: 12-19-23

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 2034-1

Date of first receipt of application December 14, 2023.

Date of return to applicant for corrections, amendments or changes December 27, 2023.

Date of receipt of corrected application January 3, 2024.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2034-1 to City of Sturgis, SD – Well 8, 1057 Dudley Street, Sturgis SD 57785, authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2034-1 appropriates up to 500 acre-feet of water annually at a maximum pump rate of 1.00 cubic feet per second from one well to be completed into the Madison Aquifer (approximately 1,437 feet deep) located in the SE 1/4 SW 1/4 Section 15-T5N-R5E for municipal use. This site is located near the southern boundary of Sturgis SD.
2. The water appropriated shall be used for the purpose of municipal and water distribution system use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 2034-1 is March 25, 2024.
5. The date from which applicant may claim right is December 14, 2023.
6. One-fifth of the construction is to be completed on or before September 25, 2026.
7. All construction is to be completed on or before March 25, 2029.
8. Water is to be put to beneficial use on or before March 25, 2033.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2034-1 is issued for a twenty-year term. Pursuant to SDCL 46-2A-21, the twenty-year term may be deleted at any time during the twenty-year period or following its expiration. If the twenty-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2034-1 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
2. The well will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

(continued)

3. The well authorized by Permit No. 2034-1 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.
5. Water Permit No. 2034-1 appropriates up to 500 acre-feet of water annually.

WATER MANAGEMENT BOARD

By: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

APR 25 2024

date



FORM 2: Application for uses other than irrigation
(type or print)

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2034-1</u> Hydrologic Unit <u>10120202</u> Basin <u>Lower Belle Fourche</u> Newspaper <u>Faith Independent</u> <u>Spearfish Black Hills Pioneer</u> (office use only)
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PAID
DEC 14 2023
Ck# 143875
Rec't# 1211423

Application for Permit to Appropriate Water in South Dakota

Check use(s) of water:

☒ Municipal	☒ Water Distribution System	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other _____	

Type of Application:
(check one)

☒ New	☐ Vested Right (Use predates Mar 2, 1955)	☒ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____		
☐ Amendment/Correction to Permit No. _____		

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

New municipal drinking water well to serve the public drinking water system for the City of Sturgis, South Dakota.

1. Name to Appear on Water Permit City of Sturgis, SD - Well 8

Mailing Address 1057 Dudley St Sturgis SD 57785
(Address) (City) (State) (Zip Code)

Phone (605) 347-3916 Mobile (605) 347-1832 Email RBush@sturgisgov.com

2. Amount of water claimed _____ *CFS or 450 **GPM and 720 ***AF or 236,000,000 Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)

3. Source of water supply Madison Aquifer

4. Location of point of diversion One (1) well in SE 1/4 of SW 1/4 of S15 T5N R5E County Meade
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☐ No

If "Yes," where will water be used? Public water supply for the City of Sturgis, SD
(example - NW1/4 section 12-T104N-R53W)

5. County or counties where water will be used Meade County

6. Annual period during which water is to be used Year-round Jan 1 - Dec 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

This proposed well (Well 8) will be used primarily to provide capacity to the City's public water supply to account for reduction in well production of existing wells and to provide water service to residents within the City. This project consists of one (1) new well, one (1) new well house, and water distribution main. These new water system components will be located in the 3,770' Pressure Zone, which is the main storage zone within the City that feeds the other zones via boosting or pressure reducing.

RECEIVED

DEC 14 2023

**OFFICE OF
WATER**

I, Kyle McCutcheon Project Engineer, the applicant, certify under
Name of Person Title (if applicable)
penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable)

☒ Drilling new well(s) ☐ Using existing well(s)

- a) If new wells, how many 1 Have test holes been drilled? ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)
- b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:

- c) Well Depth (required) 1437' Depth to Top of Water Bearing Material 987' Depth to Water from Surface 500'
- d) Distance to nearest domestic well on applicant's property N/A Property owned by others 2000'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) N/A
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

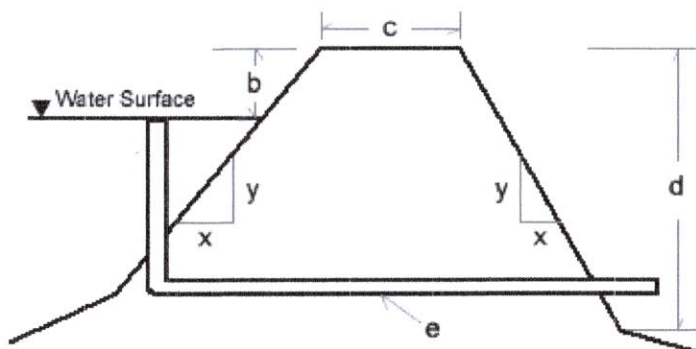
3. Dugout Information

- a) Surface Dimensions N/A Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres



CITY OF
STURGIS
SOUTH DAKOTA

02/14/2024 STURGIS WELL 8 WATER SYSTEM IMPROVEMENTS SCHEDULE A - WELL 8

STURGIS PUBLIC WORKS DEPARTMENT
CITY OF STURGIS, SD

UTILITY AND EMERGENCY TELEPHONE NUMBERS

CITY OF STURGIS PUBLIC WORKS - STURGIS, SOUTH DAKOTA
EMERGENCY: 911
SOUTH DAKOTA ONE CALL: (800) 781-7474
CITY OF STURGIS WATER: (605) 347-3916
CITY OF STURGIS WASTEWATER: (605) 347-3916
CITY OF STURGIS PUBLIC WORKS: (605) 347-3916
BLACK HILLS ENERGY: (888) 890-5554
CENTURYLINK: (605) 394-4720
MIDCO: (605) 787-3371
MDU: (605) 642-2654
BLUEPEAK: (888) 975-4258

OWNER CONTACT INFORMATION

RICK J. BUSH, CPWP-M
DIRECTOR OF PUBLIC WORKS
CITY OF STURGIS
OFFICE (605) 347-3916

ENGINEER CONTACT INFORMATION

TED SCHULTZ, PE, PROJECT MANAGER
FOTH INFRASTRUCTURE & ENVIRONMENT, LLC
510 1/2 NINTH STREET, SUITE 200
RAPID CITY, SD 57701
(651) 288-8608

PROPERTY ADDRESS

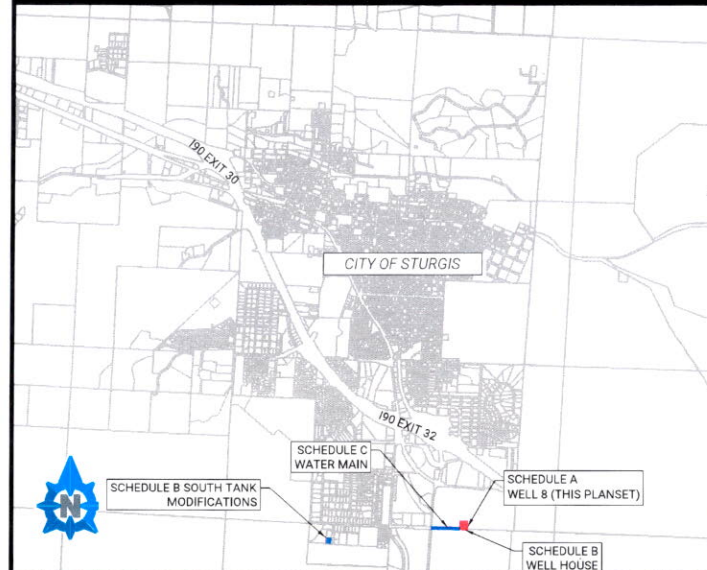
STURGIS, SD 57785

UTILITY NOTES

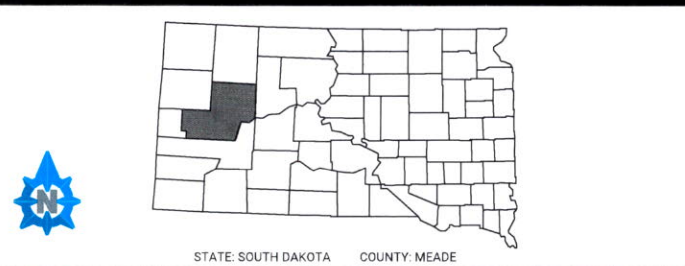
CONTROL/DATUM:

ANY SURVEY MONUMENTS THAT ARE DAMAGED
MUST BE REPLACED IN ACCORDANCE WITH
SPECIFICATIONS.

LOCATION MAP



STATE & COUNTY LOCATION



STATE: SOUTH DAKOTA COUNTY: MEADE

INDEX OF SHEETS

NO.	DESCRIPTION
AG0.01	TITLE SHEET
AG0.02	GENERAL NOTES
AG0.03	GENERAL NOTES, PROJECT QUANTITIES AND TYPICAL ABBREVIATIONS
AC0.01	WELL 8 VICINITY PLAN
AC1.01	WELL 8 SITE PLAN
AC5.01	TYPICAL DETAILS
AD1.01	WELL CONSTRUCTION PLAN
AD1.02	WELL PUMP SETTING PLAN
AD5.01	WELL CONSTRUCTION DETAILS



GENERAL PROJECT NOTES

PROJECT DESCRIPTION

THE CITY OF STURGIS HAS SELECTED PROJECTS FOR WATER SYSTEM IMPROVEMENTS NEAR THE INTERSECTION OF JUNCTION AVE. AND PINEVIEW DRIVE

THIS PLAN SET IS FOR THE WELL CONSTRUCTION (SCHEDULE A):

WORK UNDER THIS CONTRACT CONSISTS OF CONSTRUCTING A NEW WELL WHICH INCLUDES DRILLING, INSTALLATION OF CASING PIPE, GROUTING, BOND LOGGING, PUMP TESTING, INSTALLATION OF DROP PIPE AND A SUBMERSIBLE WELL PUMP, WELL HEAD PROTECTION, AND OTHER RECORDS AND REPORTS.

WORK RELATED TO BUT NOT IN CONSTRUCTION CONTRACT:

- WELL HOUSE B CONSTRUCTION (SCHEDULE B)
- WATER MAIN INSTALLATION (SCHEDULE C)

STANDARD SPECIFICATIONS

SUPPLEMENTAL SPECIFICATIONS ARE INCLUDED FOR WORK NOT COVERED IN THE STANDARD SPECIFICATIONS.

STANDARD SPECIFICATIONS FOR THE WORK SHALL BE:

- FOTH TECHNICAL SPECIFICATIONS
- CITY OF STURGIS STANDARD SPECIFICATIONS AND REQUIREMENTS

LICENSE

THE WORK REQUIRES THAT THE WELL DRILLER BE LICENSED WITH A MINIMUM OF FIVE (5) YEARS EXPERIENCE.

PROJECT INFORMATION SIGN

THE CONTRACTOR WILL BE REQUIRED TO FURNISH A SIGN UNDER THIS CONTRACT WHICH SHALL BE LOCATED AT THE ENTRANCE OF THE PROJECT SITE. THE PROJECT SHALL BE CONSIDERED INCIDENTAL WORK.

WATER QUALITY

SURFACE WATER QUALITY

IF CONSTRUCTION DEVELOPMENT IS REQUIRED, THE CONTRACTOR IS REQUIRED TO OBTAIN A SURFACE WATER DISCHARGE PERMIT FROM THE SD DNR. CONTACT THE SD DNR SURFACE WATER PROGRAM AT 605-773-3351 TO APPLY FOR A PERMIT. THE CONTRACTOR IS REQUIRED TO PREPARE THE STORMWATER APPLICATION AND PLAN FOR SIGNATURE BY THE OWNER. THE OWNER WILL SIGN THE PERMIT COVERAGE AND THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE NOTICE OF INTENT.

STORM WATER

THE CONTRACTOR IS ADVISED THIS PROJECT IS REGULATED UNDER STORM WATER REGULATIONS AND MUST RECEIVE COVERAGE UNDER THE SD DNR GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES. A NOTICE OF INTENT (NOI) SHALL BE SUBMITTED TO SD DNR A MINIMUM OF 15 DAYS PRIOR TO PROJECT START BY THE CONTRACTOR. A LETTER MUST BE RECEIVED FROM SD DNR THAT ACKNOWLEDGES PROJECT COVERAGE UNDER THIS GENERAL PERMIT BEFORE PROJECT START. THE CONTRACTOR IS ADVISED THAT PERMIT COVERAGE MAY ALSO BE REQUIRED BY OFFSITE ACTIVITIES, SUCH AS BORROW AND STAGING AREAS, WHICH ARE ALSO THE RESPONSIBILITY OF THE CONTRACTOR.

A MAJOR COMPONENT OF THE STORM WATER CONSTRUCTION PERMIT IS DEVELOPMENT AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). STORM WATER PERMIT INFORMATION IS INCLUDED IN THE APPENDICES OF THE CONTRACT DOCUMENTS. NO SEPARATE PAYMENT WILL BE MADE FOR DEVELOPING THE STORM WATER POLLUTION PREVENTION PLAN. COSTS SHALL BE INCLUDED UNDER THE ITEM "INCIDENTAL WORK".

COORDINATION AND SCHEDULING

CONTRACTOR SHALL PROVIDE A SEVEN (7) DAY NOTICE TO OWNER AND ENGINEER PRIOR TO CHANGES IN TRAFFIC CONTROL, CONNECTION TO EXISTING WATER SYSTEMS, DISRUPTION OF UTILITIES. CONTRACTOR SHALL COORDINATE WITH OTHER SCHEDULES OF WORK, AS LISTED UNDER THE PROJECT DESCRIPTION, FOR CONNECTION OF THE SYSTEM COMPONENTS. THE CONTRACTOR SHALL NOTIFY THE CITY OF STURGIS WATER DEPARTMENT PERSONNEL AND AFFECTED PROPERTY OWNERS 48 HOURS PRIOR TO WORK, FOR WORK REQUIRING THE OPERATION OF CITY OWNED PROPERTY.

COORDINATE GRADING PLAN OF THE TEMPORARY ACCESS ROAD AND PERMANENT ACCESS ROAD WITH OWNER AND ENGINEER PRIOR TO WORK. NO ACCESS OR DISTURBANCES ARE ALLOWED TO TAKE PLACE ON PARCEL ID 11.22.12. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING SITE ROUTING MARKERS THROUGHOUT PROJECT.

THE SCHEDULE A, SCHEDULE B, AND SCHEDULE C CONTRACTORS SHALL COORDINATE AND COOPERATE WITH ALL CONSTRUCTION INTERFACE, SCHEDULING AND SEQUENCE OF WORK.

GENERAL SEQUENCING

THE CONTRACTOR SHALL USE THE DRAWINGS FOR THE PROJECT SPECIFIC SEQUENCING GUIDANCE. THE CONTRACTOR SHALL SUBMIT THE PROPOSED SEQUENCE AND PROJECT SCHEDULE NOT LESS THAN SEVEN (7) WORKING DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING.

THE WELL PROJECT IS PROPOSED FOR MULTIPLE PHASES OF WORK TO COMPLETE WELL DRILLING, DEVELOPMENT, AND INSTALLATION OF THE WELL PUMP AND MOTOR UNDER A SEPARATE MOBILIZATION. THE PROJECT WILL ALSO REQUIRE COORDINATION WITH A SEPARATE CONTRACT FOR THE PROPOSED WELL HOUSE AND ELECTRICAL CONNECTIONS TO THE PROPOSED PUMP AND MOTOR. THE CONSTRUCTION SEQUENCE FOR THE PROJECT IS AS FOLLOWS:

- CONSTRUCTION STAKE FEATURES FOR CONSTRUCTION.
- INSTALL CULVERT AND CONSTRUCT APPROACH AND VEHICLE TRACKING PAD.
- INSTALL EROSION CONTROL DEVICES.
- WELL DRILLING AND DEVELOPMENT.
- TEST PUMPING.
- DEMObILIZATION FOR WELL DRILLING.
- MOBILIZATION FOR WELL PUMP AND MOTOR INSTALLATION.
- COMPLETE FINAL SITE RESTORATION AND REMOVAL OF EROSION CONTROL DEVICES.

GENERAL PROJECT NOTES

CONTRACTOR FURNISHED PROGRESS SCHEDULES

AT LEAST TWO WEEKS PRIOR TO THE START OF THE WORK THE CONTRACTOR SHALL FURNISH THE ENGINEER TWO (2) COPIES OF A PROGRESS SCHEDULE. THE SCHEDULE SHALL CONSIST OF A CONSTRUCTION SCHEDULE AND A BRIEF WRITTEN NARRATIVE. THE SCHEDULE SHALL CONTAIN THE FOLLOWING INFORMATION:

1. THE CONTRACTOR SHALL IDENTIFY TIMING OF CONSTRUCTION INTERFACES WITH SCHEDULE B AND SCHEDULE C WORK AND SHALL COORDINATE THIS SCHEDULING WITH SCHEDULE B AND C CONTRACTORS SUCH THAT THE TIMING OF INTERFACE IS AGREED TO AND SHOWN CORRECTLY ON ALL CONTRACTOR'S SCHEDULES
2. A TIME SCALE TO GRAPHICALLY SHOW PERCENTAGE OF WORK SCHEDULED FOR COMPLETION WITHIN THE CONTRACT COMPLETION REQUIREMENTS
3. DEFINITION AND RELATION OF WORK ACTIVITIES TO SCHEDULE OF VALUES.
4. WORK ACTIVITIES (PRIME CONTRACTOR AND ALL SUBCONTRACTOR ACTIVITIES) IN THE ORDER THE WORK WILL BE PERFORMED INCLUDING SUBMITTALS, APPROVALS, DELIVERIES, TRAFFIC CONTROL, AND RELATED WORK.
5. ALL MAJOR WORK ACTIVITIES THAT ARE CONTROLLING FACTORS IN THE COMPLETION OF THE WORK.
6. THE TIME REQUIRED FOR EACH ACTIVITY AND ITS RELATIONSHIP IN TIME TO OTHER ACTIVITIES
7. THE TOTAL EXPECTED TIME TO COMPLETE ALL WORK.
8. THE EXPECTED WORK SHIFTS IN DAYS PER WEEK AND HOURS PER DAY AND THE DAYS WHEN WORK IS NOT EXPECTED TO BE PERFORMED.

THE SCHEDULE SHALL BE UPDATED, REVISED AND RESUBMITTED ON A MONTHLY INTERVAL UNTIL THE PROJECT IS SUBSTANTIALLY COMPLETE. THERE WILL BE NO DIRECT PAYMENT FOR THE CONTRACTOR-FURNISHED SCHEDULE. ALL COSTS INCURRED WITH THE SCHEDULE SHALL BE INCIDENTAL TO THE PROJECT. FAILURE TO PROPERLY SUBMIT THE REQUIRED CONSTRUCTION SCHEDULES WILL RESULT IN THE WITHHOLDING OF PROGRESS PAYMENTS UNTIL AN APPROVED SCHEDULE IS RECEIVED.

AS BUILT DRAWINGS / RECORD DOCUMENTS

THE CONTRACTOR IS RESPONSIBLE FOR RECORDING AND PROVIDING ALL AS-BUILT CONDITIONS FOUND AND INSTALLED UPON CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE AS-BUILTS WITH FIELD MEASUREMENTS AND GRADES UPON COMPLETION OF THE WORK. A COPY OF THE AS-BUILTS SHALL BE KEPT AT THE PROJECT SITE AT ALL TIMES.

PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR THIS PROJECT. THE CITY WILL PAY PERMIT FEES AS INDICATED IN OF THE CONTRACT DOCUMENTS. ANTICIPATED PERMITS FOR THIS PROJECT ARE AS FOLLOWS:

1. SDDANR GENERAL DEWATERING GENERAL PERMIT FOR DISCHARGES UNDER THE SOUTH DAKOTA SURFACE WATER DISCHARGE SYSTEM FOR TEMPORARY DISCHARGE ACTIVITIES IN SOUTH DAKOTA.
2. SDDANR WATER RIGHTS PERMIT (PROVIDED BY CITY OF STURGIS.)

TEMPORARY POWER

THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER OR GENERATOR POWER FOR RUNNING OF THE WELL PUMP AS GENERALLY SIZED IN THE PROJECT PLANS. THE CONTRACTOR SHALL COORDINATE DRILLING & TEMPORARY POWER SETUP WITH BLACK HILLS ENERGY AND IS RESPONSIBLE FOR SERVICE AND ELECTRICAL CHARGES DURING THE CONSTRUCTION PROJECT. PAYMENT SHALL BE MADE UNDER THE BID ITEM, "TEMPORARY POWER, LS". CONTRACTOR IS RESPONSIBLE TO DETERMINE IF TEMPORARY POWER WILL BE AVAILABLE OR IF GENERATOR POWER IS REQUIRED.

SUBMITTALS

THE TERM "SUBMITTALS" INCLUDES DRAWINGS, DIAGRAMS, DESCRIPTIVE LITERATURE, ILLUSTRATIONS, INSTRUCTIONS, SCHEDULES, PERFORMANCE AND TEST DATA, PRODUCT DATA SHEETS, MATERIAL SAFETY DATA SHEETS, AND SIMILAR MATERIALS BY A SUPPLIER OR CONTRACTOR TO ILLUSTRATE MATERIAL OR EQUIPMENT FOR SOME PORTION OF THE WORK. AT LEAST FOURTEEN (14) WORKING DAYS BEFORE NEEDED APPROVAL, THE CONTRACTOR SHALL FORWARD TO THE ENGINEER A MINIMUM OF FIVE (5) COPIES OF SUBMITTALS FOR ALL CONTRACTOR FURNISHED PRODUCTS. SUBMITTALS SHALL CLEARLY INDICATE ANY DEVIATION FROM THE SPECIFICATIONS AND SHALL BE CERTIFIED AND DATED BY THE CONTRACTOR. SUBMITTALS WILL BE ACCEPTED ONLY FROM THE CONTRACTOR. THE ENGINEER WILL INDICATE APPROVAL OR DISAPPROVAL OF EACH SUBMITTAL AND IF NOT APPROVED, THE SUBMITTAL WILL INDICATE REASONS FOR DISAPPROVAL. ANY WORK DONE PRIOR TO APPROVAL SHALL BE AT THE CONTRACTOR'S OWN EXPENSE. RESUBMITTALS SHALL BE MADE THE SAME AS THE ORIGINAL SUBMITTALS WITH CHANGES FROM THE PREVIOUS SUBMITTAL CLEARLY SHOWN. SUBMITTALS MAY BE SUBMITTED ELECTRONICALLY VIA EMAIL WITH FULL DOCUMENTATION AND TRANSMITTAL LETTER.

THE LOG OF CONSTRUCTION SUBMITTALS SHALL INCLUDE BUT IS NOT LIMITED TO:

1. CONSTRUCTION SCHEDULE
2. SUBCONTRACTOR & SUPPLIER LIST
3. KEY PERSONNEL
4. STORM WATER PLAN
5. SDDANR DEWATERING PERMIT
6. EROSION CONTROL DEVICES
7. FILL MATERIALS
8. STEEL CASING PIPES
9. STEEL COLUMN PIPE
10. PITLESS WELL ADAPTOR
11. CEMENT GROUT
12. ELECTRICAL JUNCTION BOX
13. ELECTRICAL CONDUIT
14. COLUMN PIPE CHECK VALVES
15. WELL PUMP & MOTOR
16. POLYETHYLENE AIR LINE
17. LEVEL TRANSDUCER
18. DAILY DRILLER'S LOG
19. PIPE TALLY SHEETS
20. GEOPHYSICAL LOGGING
21. ACIDIZATION PLAN
22. PUMPING TESTS / PUMP TEST PLAN & EQUIPMENT
23. PUMP CABLE
24. WATER QUALITY RESULTS
25. WELL DISINFECTION PLAN
26. PLUMBNESS AND ALIGNMENT TEST RESULTS
27. BACTERIOLOGICAL SAMPLE RESULTS
28. VIDEO
29. WELL CONSTRUCTION REPORT

GENERAL PROJECT NOTES

MOBILIZATION - WELL DRILLING

UNDER THIS ITEM, THE CONTRACTOR SHALL BE PAID THE LUMP SUM PRICE BID ON THE BID FORM AS FULL COMPENSATION FOR MOBILIZATION, DEMOBILIZATION, GENERAL CONDITIONS FOR CONSTRUCTION OF ONE WATER SUPPLY WELL, THE PRICE BID FOR THIS ITEM INCLUDES STAGING/DE-STAGING OF DRILL RIG AND OTHER NECESSARY EQUIPMENT AT THE WELL LOCATION, SITE SAFETY, EROSION CONTROL MEASURES, CONSTRUCTION OF THE ACCESS ROAD INCLUDING SURFACING AS NEEDED, AND ANY SITE PREPARATION AS REQUIRED BY OWNER.

INCIDENTAL WORK

INCIDENTAL WORK SHALL INCLUDE ALL MISCELLANEOUS ITEMS NOT INCLUDED IN THE REGULAR ITEMS COVERED BY UNIT PRICES LISTED IN THE PROPOSAL AND SHOWN ON THE DRAWINGS, BUT WHICH MUST BE PERFORMED IN ORDER TO PROPERLY COMPLETE THE WORK.

THE ITEMS AND WORK LISTED BELOW ARE TO BE INCLUDED IN THE INCIDENTAL WORK ITEMS, BUT THE LIST DOES NOT LIMIT THE SCOPE TO ONLY THOSE ITEMS. THE CONTRACTOR SHALL INCLUDE THOSE ITEMS THAT MAY BE SPECIFIC TO THEIR CONSTRUCTION PROCEDURES.

PROJECT COORDINATION MEETINGS
CONSTRUCTION OF SLURRY PIT
STREET MAINTENANCE/DUST CONTROL/ STREET CLEANING
OBTAIN PERMITS AS NEEDED
MAINTAIN SITE APPROACH
TEMPORARY ELECTRICAL SERVICE FOR WELL DEVELOPMENT / PUMPING
TRANSPORTATION AND STORAGE OF WATER FOR WELL DEVELOPMENT
REMOVAL OF DRILL CUTTINGS
MAINTENANCE OF EROSION CONTROL

UTILITIES

THE INFORMATION ON THESE DRAWINGS CONCERNING THE TYPE, SIZE, AND LOCATION OF UTILITIES IS BASED UPON THE INFORMATION AVAILABLE FROM THE FIELD SURVEY AFTER THE UTILITIES WERE MARKED WITH THE SOUTH DAKOTA ONE CALL SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETERMINATION OF THE EXACT LOCATION AND PROTECTION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ANY RELOCATION WITH THE UTILITY COMPANIES.

THE CONTRACTOR SHALL UTILIZE THE SOUTH DAKOTA ONE CALL NOTIFICATION PROCESS TO PROVIDE ADVANCE NOTICE OF AT LEAST 48 HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, TO INFORM ALL SOUTH DAKOTA UNDERGROUND FACILITY OPERATORS OF INTENDED EXCAVATION. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES BEFORE WORK IS COMMENCED.

THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. PROTECTION, RELOCATIONS OR ADJUSTMENT OF SHOWN UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK. UTILITIES NOT SHOWN SHALL BE REVIEWED ON A CASE-BY-CASE BASIS PER THE REQUIREMENTS OF THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT EXCEPT AS MODIFIED HEREIN. NO ADDITIONAL PAYMENT WILL BE MADE FOR UNMARKED UTILITY CROSSINGS ENCOUNTERED DURING CONSTRUCTION EXCEPT IN INSTANCES WHERE RELOCATION OF THE UNMARKED UTILITY IS REQUIRED. UNMARKED UTILITY RELOCATIONS SHALL BE COORDINATED WITH THE UTILITY OWNER BY THE CONTRACTOR. UTILITY COORDINATION WITH UTILITY OWNERS SHALL BE DOCUMENTED AND PROVIDED TO THE ENGINEER FOR REVIEW. UNMARKED UTILITY CONFLICTS REQUIRING WATER MAIN ALIGNMENT ADJUSTMENTS AND ADDITIONAL MATERIALS WILL BE PAID BASED ON THE APPLICABLE CONTRACT UNIT PRICING. THE CONTRACTOR SHALL SUPPORT OR TUNNEL UNDER EXISTING UTILITIES IN A MANNER THAT THE EXISTING UTILITIES ARE NOT DAMAGED OR DISTURBED. ANY DAMAGES DUE TO IMPROPER LOCATION OF UTILITY OR CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN A UTILITY IS ENCOUNTERED DURING CONSTRUCTION. BACKFILLING SHALL NOT BE PERMITTED UNTIL THE ENGINEER HAS HAD OPPORTUNITY TO MAKE VISUAL AND WRITTEN RECORD OF UTILITY LOCATION AND CONDITION. THE CONTRACTOR SHALL ALSO PREPARE AND COMPILE AS-BUILT DRAWINGS WHEN THERE ARE DEVIATIONS FROM THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH APPROPRIATE UTILITY COMPANY FOR TEMPORARY SUPPORT OR RELOCATION OF ANY TELEPHONE, CABLE TV, ELECTRICITY, OR OTHER UTILITY.

FAILURE TO COORDINATE UTILITY RELOCATIONS OR SUPPORTS SHALL NOT JUSTIFY ANY TIME EXTENSIONS OR ADJUSTMENT OF CONTRACT PRICE.

PRINT DATE: 2/20/2024	SHEET NO. AG0.02
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AD FILE: C:\pw_workdir\pw_ie\mh2\069153\AG0.xx\General Construction Notes And Quantities.dwg

		February 14, 20	
Published Date: 1st Qtr. 2023	S D O T	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER
			734.04
		Sheet 1 of 2	

A silt trap will be provided when specified by a plan note. All costs for constructing the silt trap will be incidental to the contract unit price per cubic yard for "Silt Trap".

If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end will be provided on top of the extra length of silt fence fabric to prevent underflow.

February 14, 2020

1 EXCAVATE TRENCH

4" 4"

2 DRIVE STEEL T FENCE POSTS

6' 4"

Fabric for silt fence will be 36" (Min.) width.

See Detail B

Attach the silt fence fabric with a total of 4 plastic or wire ties per post. Three ties will be used at the top and 1 tie will be approximately at mid-point of the post.

Wheel Compact Soil

Steel T Fence Posts

3 ATTACH SILT FENCE FABRIC

4 BACKFILL TRENCH AND WHEEL COMPACT SOIL

DETAIL B

Silt Fence Fabric

Steel T Fence Post

8" staples will be placed at each post to secure the silt fence fabric to the bottom of the trench.

Plastic or Wire Ties

SECTION A-A

The elevation at these locations will be, at a minimum, higher than the top of the silt fence fabric at its lowest elevation.

Post

The silt fence length and width may be adjusted due to a larger pipe, multiple pipe, or other circumstances during construction as determined by the Engineer.

Post spacing will be 3' for these types of applications of silt fence. All other components of the silt fence will be the same as shown above.

February 8, 2012

Operation

Roll of Silt Fence Fabric

Slicing Blade (3" Width)

8" to 12" Fabric Above Ground

8" to 12" Sliced in Shovel Cut Depth

Horizontal Chisel Point (3" Width)

1 INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.

2 WHEEL COMPACT SOIL ABOVE SLICED PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.

Attach the silt fence fabric with a total of 4 plastic or wire ties per post. Three ties will be used at the top and 1 tie will be approximately at mid-point of the post.

Fabric for silt fence will be 36" (Min.) width.

See Detail B

Wheel Compact Areas

Flow

3 ATTACH SILT FENCE FABRIC

DETAIL B

The elevation at these locations will be, at a minimum higher than the top of the silt fence fabric, at its lowest elevation.

Silt Fence Fabric

Plastic or Wire Ties

Flow

Steel T Fence Post

Wheel Compact Areas

SECTION A-A

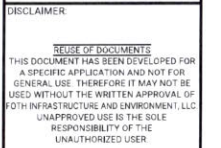
The silt fence length and width may be adjusted due to a larger pipe, multiple pipe, or other circumstances during construction as determined by the Engineer.

GENERAL NOTE:

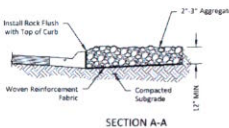
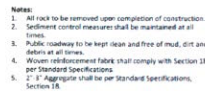
If a trench can not be dug or the silt fence fabric cannot be nailed in due to the type of external material (such as rock), then a row of 30 to 40 pound sandbags butted end to end will be graded on top of the entire length of silt fence fabric to prevent underflow.

The radius of the silt fence will be the minimum capable by the slicing machine. The post spacing will be 3' for these types of applications of silt fence. All the other components of the silt fence will be the same as shown above.

February 14, 2

[illegible]

DESIGNED:	DRAWN:	CHECKED: TFS2
PROJECT NO: 23S200.00		
PRINT DATE: 2/20/2024		SHEET NO. AC5.01



N.T.S.

CITY OF RAPID CITY		PUBLIC WORKS DEPARTMENT	
ROCK CONSTRUCTION ENTRANCE		DATE: 8-19-22	Sec. - Sht. 18-10

STURGIS, SOUTH DAKOTA

1. WELL SITE AND STAGING LOCATIONS ARE SHOWN ON THE WELL SITE PLAN.

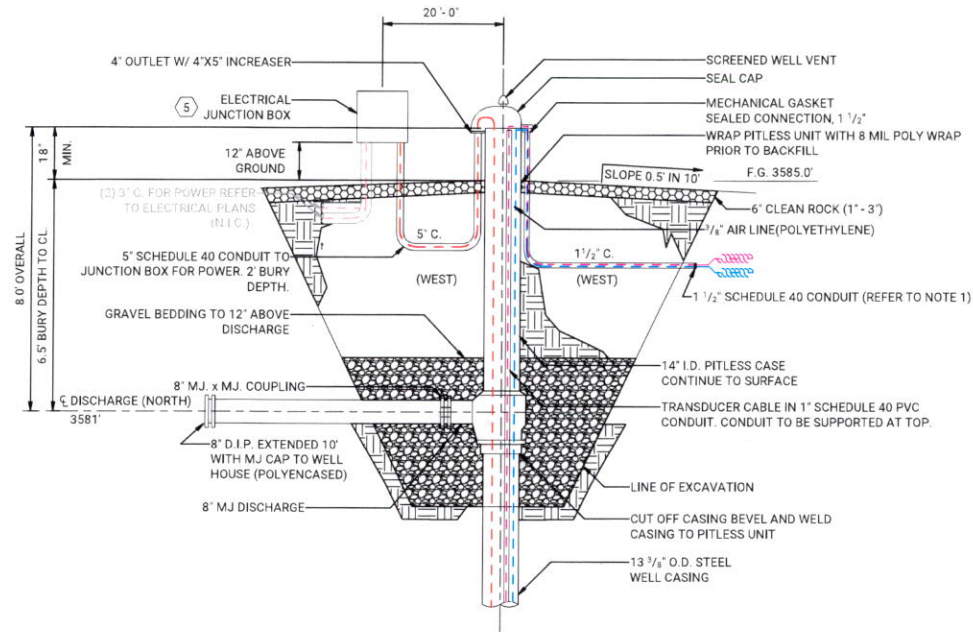
2. THE CONTRACTOR SHALL DESIGN, FURNISH AND INSTALL A TEMPORARY PIPING SYSTEM TO CONVEY WELL WATER FROM THE SITE TO LOCATIONS SHOWN ON THE WELL SITE PLAN. ON-THE-GROUND PIPING SHALL BE PRESSURE RATED PIPING WITH RESTRAINED JOINTS. PIPE SHALL BE SIZED FOR MAXIMUM FLOW ANTICIPATED FROM WELL DEVELOPMENT AND TESTING WORK. PIPE ON THE GROUND SHALL BE SECURELY ANCHORED TO PREVENT MOVEMENT. EROSION CONTROL MEASURES SHALL BE INSTALLED ACCORDING TO PLAN DETAILS AND MAINTAINED THROUGH COMPLETION OF WORK. EROSION CONTROL SHALL BE INCIDENTAL TO THE TEMPORARY PIPING SYSTEM. THE TEMPORARY PIPING AND EROSION CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR AT THE COMPLETION OF WORK AND THE GROUND SURFACE SHALL BE RESTORED, IF NECESSARY, TO A CONDITION EQUAL TO PRECONSTRUCTION CONDITIONS. PAYMENT FOR THE TEMPORARY PIPING SYSTEM WILL BE ON A LUMP BASIS UNDER THE CONTRACT ITEM "TEMPORARY WELL DISCHARGE PIPING SYSTEM".



1. THIS SITE IS FENCED WITH A WIRE GATE. THE ACCESS GATE SHALL REMAIN CLOSED WHENEVER UNSUPERVISED BY THE CONTRACTOR. SITE SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE PROJECT.
2. CONTRACTOR IS RESPONSIBLE FOR ANY MODIFICATIONS NECESSARY TO THE FENCING OR THE GATES AND SHALL PROVIDE A SECURE AREA THAT WILL CONTAIN LIVESTOCK AT THE END OF EACH DAY.
3. CONTRACTOR SHALL COMPLETE ALL WORK PER THE TECHNICAL SPECIFICATIONS AND AS OUTLINED WITHIN THE PLANS.
4. CONTRACTOR SHALL REMOVE ALL DRILL CUTTINGS, REGRADE DISTURBED AREAS TO ORIGINAL AND STABILIZE WITH SEED AND MULCH.



DESIGNED: KM/TFS	DRAWN: LKR	CHECKED: TFS
PROJECT NO: 23S200.00		
PRINT DATE: 02/20/24		SHEET NO: AD1.01



CONTRACT REQUIREMENT NOTES:

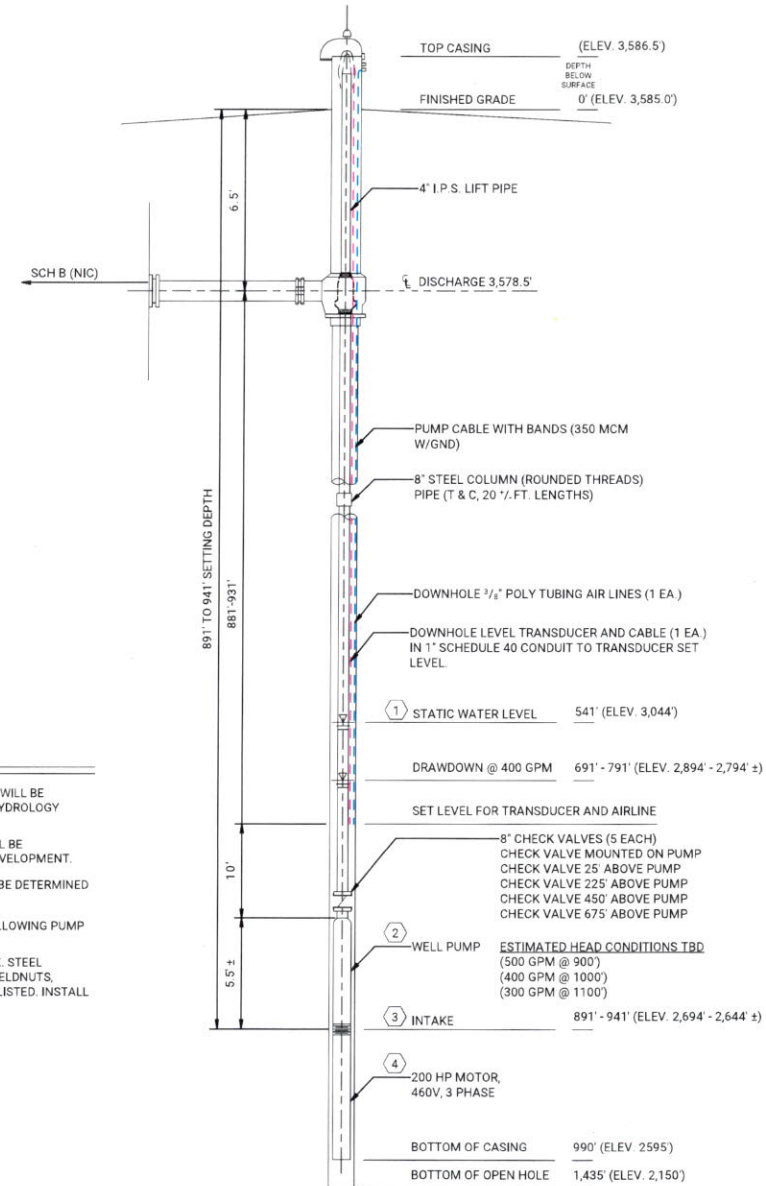
- CONTRACTOR FOR SUBMERSIBLE WELL PUMP WORK SHALL FURNISH AND INSTALL THE PITLESS UNIT, WELL PUMP, PUMP CABLE, JUNCTION BOX, TRANSDUCER AND CABLE, CONDUIT, AND AIR BUBBLER LINES. APPROXIMATELY 100' OF 3/8" POLY TUBING AND 100' OF TRANSDUCER CABLE SHALL BE COILED AT THE SURFACE FOR SUBSEQUENT CONNECTION BY WELL HOUSE WORK. INSTALL CONDUITS FROM WELL HEAD, AND PULL CABLE AND AIR LINES FOR TERMINATION IN FUTURE WELL HOUSE.
- CONTRACTOR FOR WELL HOUSE WORK SHALL FURNISH AND INSTALL BUILDING ELECTRICAL AND ELECTRICAL FEEDER TO WELL JUNCTION BOX AND MAKE TERMINATION TO INTERFACE WITH PUMP CABLE.
- CONTRACTOR FOR WELL HOUSE WORK SHALL INSTALL CONDUIT FROM WELL JUNCTION BOX TO WELL HOUSE AND TRANSDUCER CONDUIT TO PITLESS UNIT ACCORDING TO ELECTRICAL DRAWINGS. CONTRACTOR FOR WELL HOUSE SHALL BE RESPONSIBLE FOR TERMINATIONS.
- CONTRACTOR FOR WELL HOUSE SITE WORK SHALL FURNISH AND INSTALL 8" PIPING AND CONNECT TO 8" DIP STUBBED OUT BY WELL CONTRACTOR. THE CONTRACTOR FOR SUBMERSIBLE WELL PUMP WORK SHALL INSTALL 10' OF 8" DIP DISCHARGE PIPING AND TERMINATE WITH AN 8" MJ CAP.

KEYNOTES (THIS SHEET ONLY)

- WATER LEVELS SHOWN HERE ARE ESTIMATED AND WILL BE DETERMINED BASED ON AVAILABLE BLACK HILLS HYDROLOGY DATA IN THE MADISON AQUIFER.
- TOTAL DYNAMIC HEAD FOR PUMP CONDITIONS WILL BE DETERMINED DURING TEST PUMPING AND WELL DEVELOPMENT.
- PUMP SETTING DEPTH IS APPROXIMATE AND WILL BE DETERMINED UPON WELL COMPLETION.
- FINAL MOTOR AND PUMP SIZE TO BE SELECTED FOLLOWING PUMP TESTING.
- JUNCTION BOX: 24"x24"x6" NEMA 4X JUNCTION BOX, STEEL POWDER COATED, STAINLESS STEEL HARDWARE, WELDNUTS, GROUND STUDS, HINGED COVER WITH CLAMPS, UL LISTED. INSTALL ON STAINLESS STEEL UNISTRUT.

01 PITLESS UNIT DETAIL

SCALE: NONE



02 WELL SETTING DETAIL

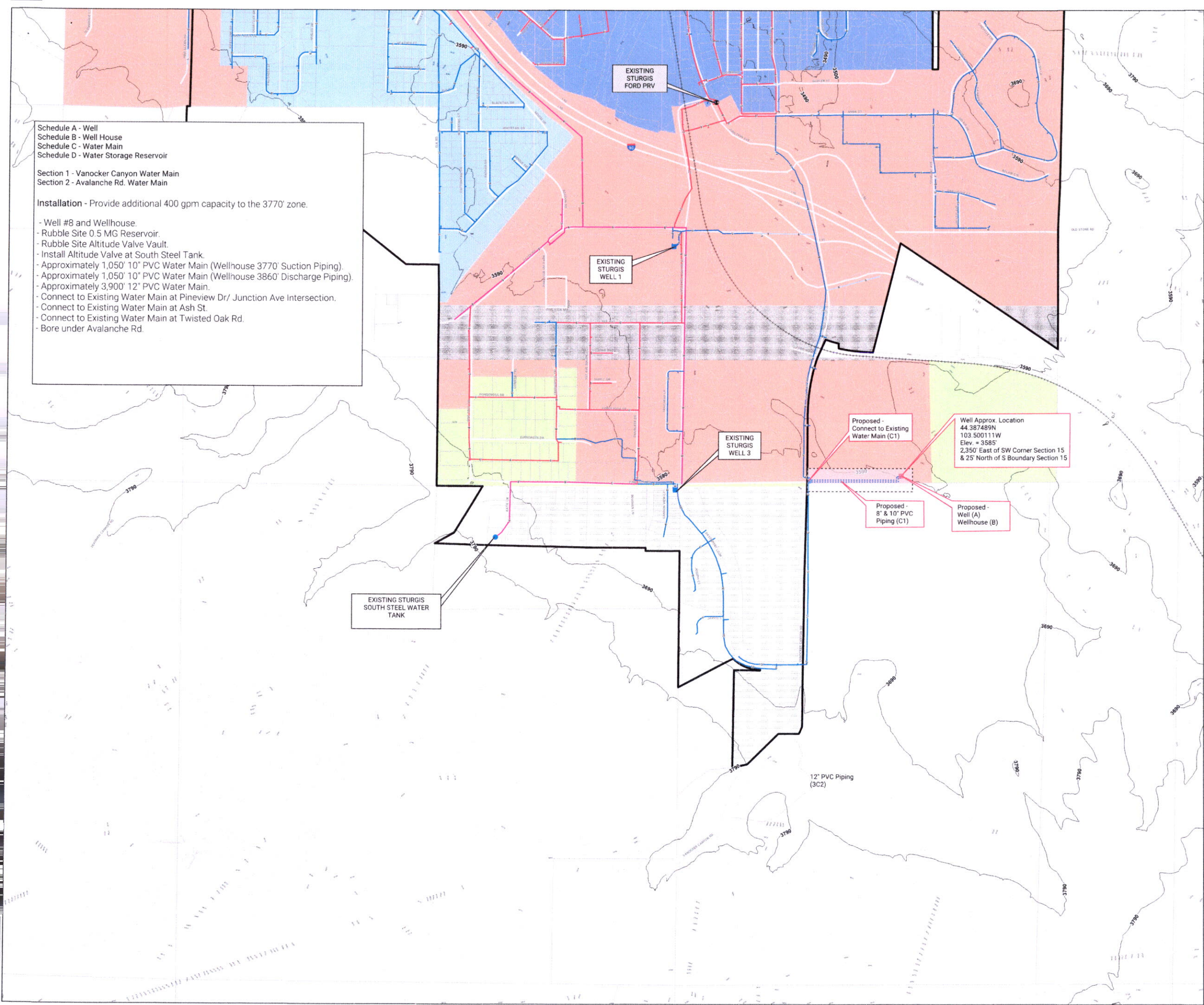
SCALE: NONE

PREPARED FOR:		 STURGIS SOUTH DAKOTA	
PREPARED BY:		 Foth Solving our clients' toughest science and engineering challenges	
OFFICE OF ORIGIN:		Foth Infrastructure & Environment, LLC 510 1/2 W. 8th Street Suite 204 Rapid City, SD 57701 Phone (605) 226-4008	
DISCLAIMER:		THESE ARE DOCUMENTS THIS DOCUMENT HAS BEEN DEVELOPED FOR A SPECIFIC APPLICATION AND NOT FOR GENERAL USE. THEREFORE IT MAY NOT BE USED WITHOUT THE WRITTEN APPROVAL OF FOTH INFRASTRUCTURE AND ENVIRONMENT, LLC. UNAPPROVED USE IS THE SOLE RESPONSIBILITY OF THE UNAUTHORIZED USER	
REVISION DESCRIPTION	BY	DATE	NO
STURGIS WELL 8 WATER SYSTEM IMPROVEMENTS SCH. A - WELL 8 WELL PUMP SETTING PLAN STURGIS, SOUTH DAKOTA Autodesk Docs // Sturgis High Level Storage Tank, Water Main, and Well 8 Improvements/00235200 00 Sturgis Well House.rvt			
DESIGNED		DRAWN	
Designer		Author	
CHECKED		CHECKED	
Checker		Checker	
PROJECT NO: 235200 00		PRINT DATE: 02/20/24	
SHEET NO: AD1.02			



DESIGNED: KM/TFS	DRAWN: LKR	CHECKED: TFS
PROJECT NO: 23S200.00		
PRINT DATE: 02/20/24		SHEET NO. AD5.01

CITY OF STURGIS, SD
FIGURE 1.1 - WATER RIGHTS APPLICATION MAP



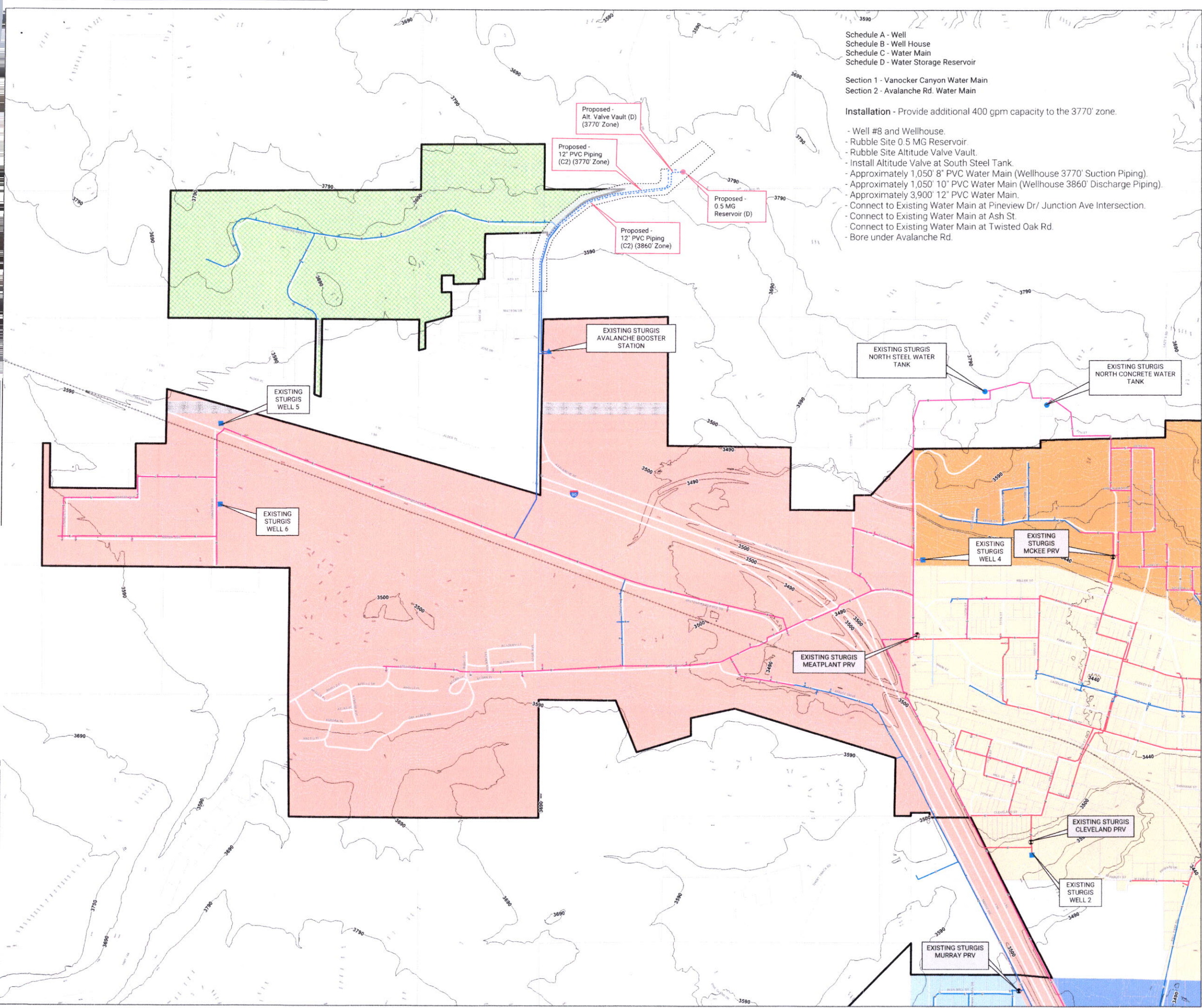
- Existing Water Lines
- Unknown
 - Cast Iron
 - Ductile Iron
 - PVC
- Existing Well
 - Existing Water Tank
 - Existing Booster Station
 - Pressure Reducing Valve

- Proposed Well
- Proposed Water Tank
- Proposed Booster Station

Pressure Zones	HGL	Range of Elevations Served	Range of Pressures Served
Northwest High Booster Zone	3890	3790 3590	43 130
Southwest Zone/Well 3 & Well 8 Booster	3890	3790 3590	43 130
High Level (North & South Steel Tanks)	3770	3690 3500	35 117
Hurley/Deadman PRV	3660	3580 3500	35 69
McKee (North Concrete Tank)	3620	3540 3440	35 78
Ballpark/Hospital PRV	3590	3500 3440	39 65
Downtown PRV	3570	3490 3350	35 95

- Corporate Limits
- Parcels
- Roads

CITY OF STURGIS, SD
FIGURE 1.2 - WATER RIGHTS APPLICATION MAP

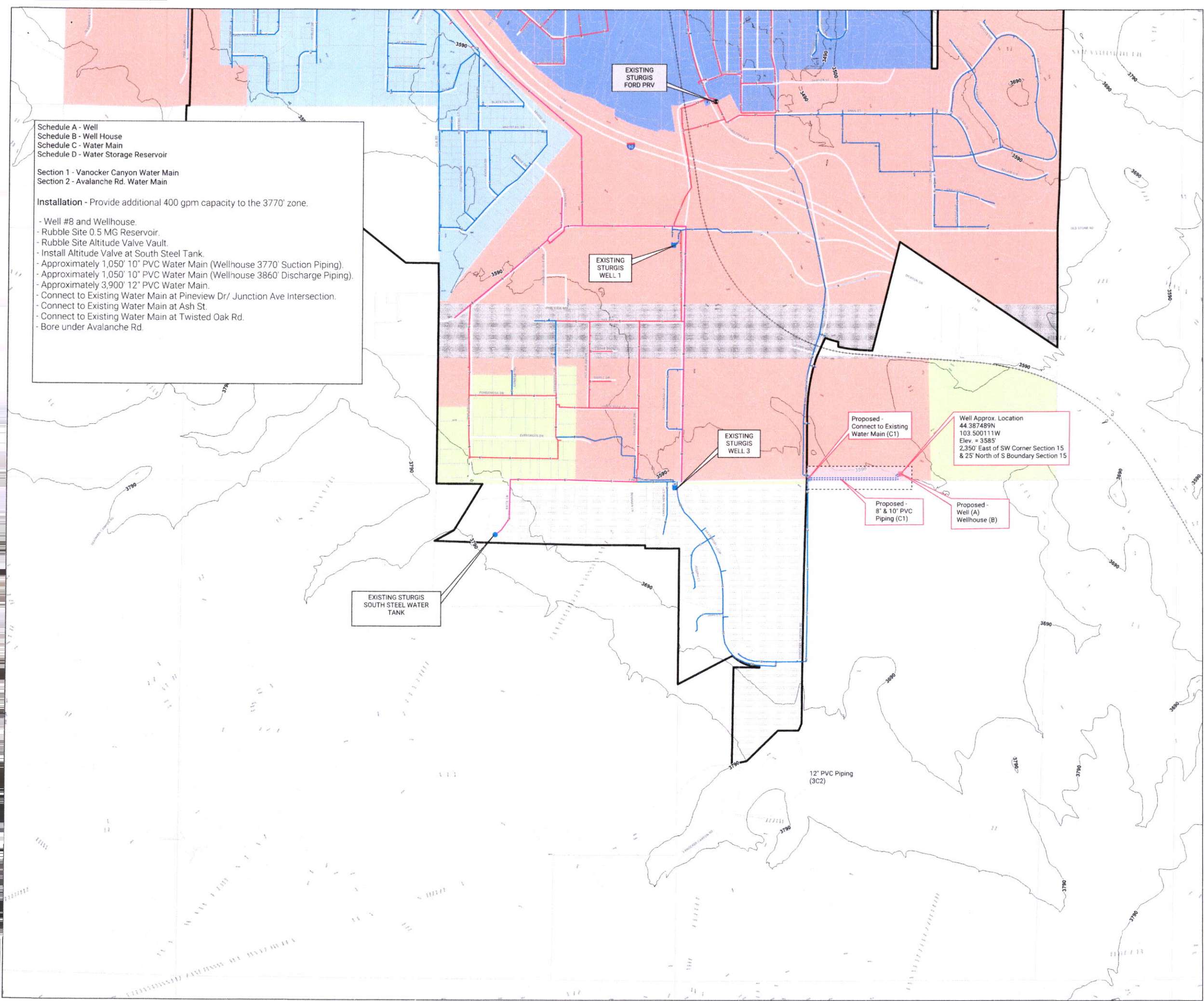


- Existing Water Lines
- Unknown
 - Cast Iron
 - Ductile Iron
 - PVC
- Existing Well
 - Existing Water Tank
 - Existing Booster Station
 - Pressure Reducing Valve
-
- Proposed Well
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- Corporate Limits
- Parcels
- Roads

CITY OF STURGIS, SD
FIGURE 1.1 - WATER RIGHTS APPLICATION MAP



Schedule A - Well
Schedule B - Well House
Schedule C - Water Main
Schedule D - Water Storage Reservoir

Section 1 - Vanocker Canyon Water Main
Section 2 - Avalanche Rd. Water Main

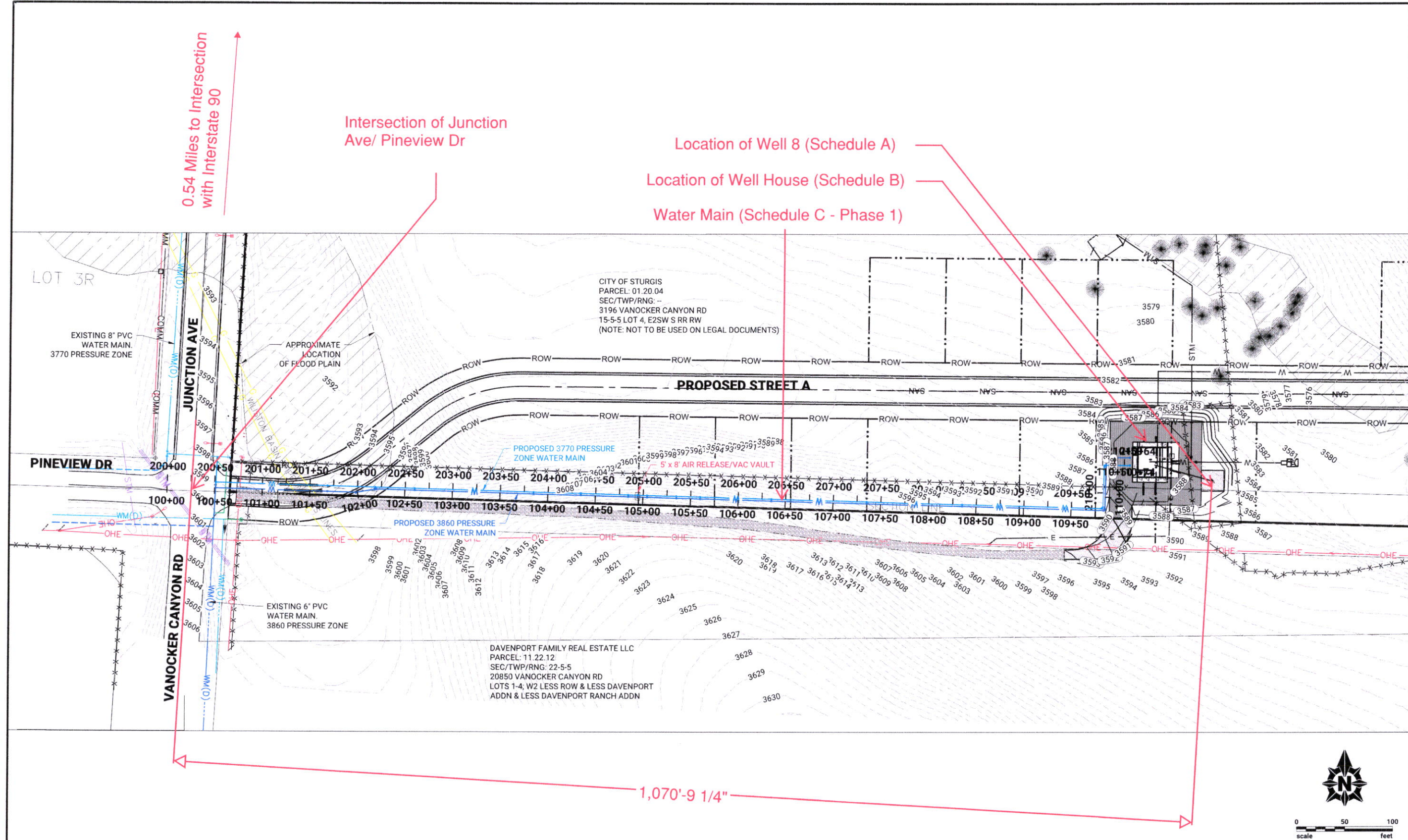
Installation - Provide additional 400 gpm capacity to the 3770' zone.

- Well #8 and Wellhouse.
- Rubble Site 0.5 MG Reservoir.
- Rubble Site Altitude Valve Vault.
- Install Altitude Valve at South Steel Tank.
- Approximately 1,050' 10" PVC Water Main (Wellhouse 3770' Suction Piping).
- Approximately 1,050' 10" PVC Water Main (Wellhouse 3860' Discharge Piping).
- Approximately 3,900' 12" PVC Water Main.
- Connect to Existing Water Main at Pineview Dr/ Junction Ave Intersection.
- Connect to Existing Water Main at Ash St.
- Connect to Existing Water Main at Twisted Oak Rd.
- Bore under Avalanche Rd.

- Existing Water Lines
- Unknown
 - Cast Iron
 - Ductile Iron
 - PVC
- Existing Well
 - Existing Water Tank
 - Existing Booster Station
 - Pressure Reducing Valve
-
- Proposed Well
 - Proposed Water Tank
 - Proposed Booster Station

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- Corporate Limits
- Parcels
- Roads



City of Sturgis, SD - Well 8 Application Fee				
	Rate (gpm)	Volume (acre-ft per year)	Filing Fee	
First 120 acre-ft per year	75	120	\$	500.00
Second 120 acre-ft per year	75	120	\$	250.00
Each Additional 120 acre-ft per year	75	120	\$	100.00
Each Additional 120 acre-ft per year	75	120	\$	100.00
Each Additional 120 acre-ft per year	75	120	\$	100.00
Each Additional 120 acre-ft per year	75	120	\$	100.00
Inspection/Licensing Fee			\$	200.00
Total	450	720	\$	1,350.00

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Agriculture and Natural Resources

Date December 14, 2023

RECEIVED OF City of Sturgis 1057 Dudley St., Sturgis SD 57785

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>2034-1</u> to Appropriate Water, to construct and to put water to beneficial use	\$1150.00
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>2034-1</u>	\$200.00
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$1350.00
(Any Other Work Provided by Law)	TOTAL
	\$1350.00

By Eric Gronlund
Chief Engineer
zm

Mathiowetz, Adam (DENR)

From: Schultz, Ted <ted.schultz@foth.com>
Sent: Wednesday, February 21, 2024 9:42 AM
To: Mathiowetz, Adam (DENR)
Cc: McCutcheon, Kyle
Subject: [EXT] Sturgis Well 8 Water Right - Design Document
Attachments: 23S200 Schedule A.pdf

Adam,

Please find the attached drawings for the Sturgis Water Right Permit. This document replaces the well drawings in the original application and corrects the casing depth. Thank you.

Ted F. Schultz, PE
Senior Client Manager
Licensed in MN, WI, SD, ND, NE, WY



Foth Infrastructure & Environment, LLC
Mobile (605) 381-0433
foth.com

From: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Sent: Wednesday, February 21, 2024 8:31 AM
To: Schultz, Ted <ted.schultz@foth.com>
Subject: [External] Sturgis Well Design Document



Adam Mathiowetz, PE
Engineer, Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
605.773.3352
danr.sd.gov

CAUTION: This email originated from outside of Foth. Do not click on links or open attachments unless you recognize the sender and know the content to be safe.

Duvall, Ron

From: Rick Bush <RBush@sturgisgov.com>
Sent: Thursday, December 28, 2023 6:44 AM
To: Duvall, Ron; Schultz, Ted
Cc: Rodriguez, Rachel; Dewell, Amanda; Todd Youngberg
Subject: RE: [EXT] Water Permit Application for new well

Importance: High

Thank you Ron,

I will have Ted Shultz review your comments and we will get these items corrected. You are correct that we intend to drill and use the well immediately.

Thanks,

Rick J. Bush, CPWP-M
Director of Public Works
City of Sturgis
Office (605) 347-3916
Cell (605)347-1832
rbush@sturgisgov.com
www.sturgis-sd.gov



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From: Duvall, Ron <Ron.Duvall@state.sd.us>
Sent: Wednesday, December 27, 2023 3:15 PM
To: Rick Bush <RBush@sturgisgov.com>
Cc: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>; Dewell, Amanda <Amanda.Dewell@state.sd.us>
Subject: Water Permit Application for new well

Rick,

I am looking over the application the city submitted for a well to be located in the SE1/4 SW1/4 section 15-T5N-R5E. On the application it was checked as a "Future Use Reservation" but the application otherwise indicates that this is a well to be drilled and placed into use immediately. Consequently, it appears that this is not intended to reserve water for

future use – please confirm the intent is to complete the well and place water to beneficial within five years of issuance of the permit.

Secondly, the amount of water claimed is 450 gallons per minute and 724 acre-feet annually. Each of these numbers should reflect maximum values rather than averages. Since it would require pumping 450 gpm nonstop to achieve 724 acre-feet per year, it appears that one of these values needs to be changed. If the target is 724 acre-feet as a maximum annual volume, then the gpm pump rate likely needs to be higher to attain that volume or, if the 450 gpm pump rate is the maximum value, then the annual volume should be lower. Please advise how you would like this clarified.

Thank you,

Ron Duvall
Dept. of Agriculture & Natural Resources
Office of Water, Water Rights Program
605.773.3352
danr.sd.gov



DANR
SOUTH DAKOTA



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2034-1, City of Sturgis**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 2034-1, City of Sturgis, 1057 Dudley Street, Sturgis SD 57785.

The Chief Engineer is recommending APPROVAL of Application No. 2034-1 with a twenty-year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2034-1 is issued for a twenty-year term. Pursuant to SDCL 46-2A-21, the twenty-year term may be deleted at any time during the twenty-year period or following its expiration. If the twenty-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2034-1 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
2. The well will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The well authorized by Permit No. 2034-1 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.
5. Water Permit No. 2034-1 appropriates up to 500 acre-feet of water annually.

See report on application for additional information.

Eric Gronlund
Eric Gronlund, Chief Engineer
March 1, 2024

**Report to the Chief Engineer on
Water Permit Application No. 2034-1
City of Sturgis, SD – Well 8
2024 February 20**

Water Permit Application No. 2034-1 proposes to appropriate up to 500 acre-feet of water annually (ac-ft/yr) at a maximum diversion rate of 1.00 cubic feet of water per second (cfs) from one well to be completed into the Madison aquifer (approximately 1,437 feet deep) located in the SE ¼ SW ¼ Section 15-T5N-R5E for municipal use. This site is located near the southern boundary of Sturgis, South Dakota in Meade County.

Aquifer: Madison Limestone (MDSN)

Hydrogeologic Characteristics

The Madison Group in South Dakota is a Lower Mississippian and Upper Devonian aged group of formations that in the Black Hills consists of the Englewood and Pahasapa Limestone formations [1]. The Pahasapa Limestone is a “white, light-gray to tan, fine- to medium-grained limestone and dolomite containing brown to gray chert” [2]. The Englewood Limestone is a “pink to lavender to light-gray, thin- to medium-bedded, fine- to medium-grained, argillaceous, dolomitic limestone” [2]. The Madison aquifer consists of the permeable and porous portions of the Madison Group that are sufficiently saturated to deliver useful quantities of water. The Madison aquifer extends over more than 210,000 square miles in Montana, Wyoming, North Dakota, South Dakota, and Nebraska [3] although, it may not be suitable as a source of water in all of those areas due to extreme depth to the aquifer and poor water quality far from the outcrops [4]. It crops out in the Black Hills and is buried elsewhere in South Dakota [3]. The Madison aquifer may be hydrologically connected to the underlying Deadwood aquifer. It is also hydrologically connected to the overlying Minnelusa aquifer [5]. The Minnelusa aquifer overlies the Madison unconformably [1], which means there was a period of erosion or weathering between when the Madison Group and the Minnelusa Formation were deposited. Transmissivity in the Madison aquifer mainly comes from secondary porosity features such as solution cavities, faults, and fractures [5]. Because most of the transmissivity in the Madison aquifer comes from secondary porosity features, aquifer characteristics in the Madison aquifer vary greatly from location to location [5].

The applicant did not submit a well completion report with this application, but sufficient geologic information is available to determine availability of water and possibility of developing this application without unlawful impacts to existing water rights. The well completion report for Water Right No. 1287-1, which is located approximately 0.6 miles west of this application, indicates the Madison aquifer was encountered 1,060 feet below grade and continued at least to 1,500 feet below grade, where the well bore terminates. The static water level was 213 feet below grade at the time the well was drilled in February of 1984. The applicant submitted a plan with their application for a well to be completed to a total depth of approximately 1,437 feet, with casing down to 990, the estimated depth of the top of the Madison Formation at the proposed well site. The applicant intends to use open hole construction below the casing.

Applicable South Dakota Codified Law (SDCL)

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board. This report will only assess the availability of water and possibility of developing this application without unlawful impairment of existing domestic water uses and water rights.

Pursuant to SDCL 46-6-3.1, no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source. An exception allows water distribution systems to withdraw from groundwater sources older or stratigraphically lower than the Greenhorn Formation regardless of the results of a hydrologic budget. The Madison aquifer is older and stratigraphically lower than the Greenhorn Formation and the applicant is a water distribution system as defined in SDCL 46-1-6(17). Therefore, the Water Management Board's authority to approve this application is not restricted by whether recharge exceeds withdrawals. However, a statewide and local hydrologic budget is included in this report for the information of the Chief Engineer and the Water Management Board.

Pursuant to SDCL 46-2A-20:

Notwithstanding §§ 46-1-14 and 46-2A-7, no water permit for construction of works to withdraw water from the Madison formation in Butte, Fall River, Custer, Lawrence, Meade and Pennington counties may be issued for a term of more than twenty years, unless the Water Management Board determines, based upon the evidence presented at a hearing that:

- (1) Sufficient information is available to determine whether any significant adverse hydrologic effects on the supply of water in the Madison formation would result if the proposed withdrawal were approved; and*
- (2) The information, whether provided by the applicant or by other means, shows that there is a reasonable probability that issuance of the proposed permit would not have a significant adverse effect on nearby Madison formation wells and springs.*

This application proposes to withdraw water from the Madison aquifer in one of the counties listed above. Therefore, in addition to the other requirements, the Water Management Board must consider the effect this application may have on nearby Madison aquifer wells and springs and this application is subject to a 20-year term limit.

Availability of Water

Statewide Hydrologic Budget

Statewide Recharge

The Madison aquifer receives recharge from infiltration of precipitation and streamflow on the outcrop area and may also receive inflow from the underlying Deadwood aquifer [6]. There are several reports available estimating recharge to the Madison aquifer which have been referenced by Water Rights Staff in previous reports to the Chief Engineer.

Woodward-Clyde Consultants [7] estimated recharge to the outcrop of the Madison aquifer in the Black Hills as part of an environmental impact statement for the ETSI Coal Slurry Pipeline Project. The upper-bound estimate of recharge in the Woodward-Clyde Consultants report is approximately 400,000 ac-ft/yr, assuming almost all of the precipitation that falls on the outcrop infiltrates into the aquifer [7]. Woodward-Clyde Consultants produced a lower-bound recharge estimate of 140,000 ac-ft/yr based on the Rahn and Gries [8] report [7]. However, the Rahn and Gries report estimated recharge for all Paleozoic limestone in the Black Hills, which includes the Madison Group, the Minnelusa Formation, and the Minnekahta Formation [8]. Rahn and Gries [8, p. 15] reported that 146.14 cfs was their minimum estimated recharge rate for the Paleozoic limestone from infiltration of precipitation, which converts to approximately 106,000 ac-ft/yr for all Paleozoic formations. The Woodward-Clyde Consultants report did not acknowledge the fact that the Rahn and Gries [8] report estimated minimum recharge for a larger group of formations than the Woodward-Clyde Consultants report covers, and therefore was likely to overestimate recharge to the Madison aquifer under the assumptions made [7].

Carter, Driscoll, and Hamade [6] analyzed streamflow and precipitation data from water years 1931 to 1998 in the Black Hills area in South Dakota and Wyoming to determine the average annual recharge to the Madison and Minnelusa aquifers. They estimated a combined average annual recharge to both aquifers to be 344 cfs, or approximately 249,000 ac-ft/yr, not including possible flow from the Deadwood aquifer [6]. Carter, Driscoll, and Hamade [6] estimated that approximately 55% of the recharge goes to the Madison aquifer, so the total estimated average recharge to the Madison aquifer from the outcrop in the Black Hills is 137,000 ac-ft/yr, not including possible inflow from adjacent aquifers or from the Madison aquifer outside of South Dakota. The Carter, Driscoll, and Hamade [6] report uses more years of data, more recent data, and better assumptions than the Woodward-Clyde Consultants [7] and Rahn and Gries [8] reports. Therefore, the best estimate of recharge to the Madison aquifer is based on the Carter, Driscoll, and Hamade [6] report.

Statewide Discharge

Discharge from the Madison aquifer in South Dakota is mainly by outflow to other aquifers when the hydraulic head in the Madison aquifer is higher than the other aquifers, outflow to springs and seeps, and withdrawals by domestic and appropriative wells [9]. Due to the presence of overlying aquifers and water distribution systems in many areas of the aquifer, domestic well withdrawals are a negligible portion of the hydrologic budget of the Madison aquifer. There are 171 water rights/permits currently authorized to withdraw from the Madison aquifer and 11

future use water rights/permits reserving water from the Madison aquifer. Table 1 shows the future use permits reserving water from the Madison aquifer [10].

Of the 171 active water rights/permits, 106 are primarily for some type of water distribution system (rural water system, municipal, etc), 31 primarily for irrigation, 14 for commercial use, 11 for industrial use, 4 for domestic use, 2 for geothermal use, 2 for institutional use, and one for recreation [10]. Estimated withdrawals for irrigation use are shown in Table 2. When there were more than 10 years of irrigation reports available, the average reported irrigation was used to estimate irrigation withdrawals. When there were fewer than 10 years of irrigation reports available, withdrawals are assumed to equal two acre-feet per acre, although actual usage is likely less for non-turf irrigation. Non-irrigation withdrawals from permit holders with irrigation also being a permitted use are assumed to withdraw at their maximum instantaneous diversion rate 60% of the time. In the case of Water Right No. 1885-1, that would have caused the total estimated withdrawal to exceed the rate they were physically capable of withdrawing, so their total estimated withdrawal is 100% of their maximum instantaneous diversion rate.

Table 1: Future Use Permits from the Madison aquifer [10]

Permit No.	Name/Business	County	Use	Priority Date	Amount Reserved (ac-ft/yr)
2028-1	Bear Butte Valley Water, Inc	MD	RWS, WDS	03/23/2023	440
369-1	City of Belle Fourche	LA	MUN	12/10/1958	620
2086-2	City of Rapid City	PE	MUN	05/18/1989	4,075
439-2*	City of Rapid City	PE	MUN	09/22/1956	3,367
1872-1	City of Spearfish	LA	MUN	11/13/2006	2,704
2560-2	Fall River Water Users District	FR	RWS	05/16/2005	358
2560A-2	Fall River Water Users District	FR	RWS	05/16/2005	0
2560B-2	Fall River Water Users District	FR	RWS	05/16/2005	0
2580-2	Southern Black Hills Water System	FR	RWS	03/02/2006	1,474
1833-2	Weston Heights Home Owners	MD	RWS	02/18/1983	211
1995-1	Black Hawk Water User District	MD	RWS	04/15/2020	1,300
Total					14,549
FR – Fall River, LA – Lawrence, MD – Meade, PE – Pennington					
MUN – Municipal, RWS – Rural Water System, WDS – Water Distribution System					
* This permit reserves water from multiple aquifers but is assumed to withdraw solely from the Madison for estimation of the hydrologic budget.					

Water Right/Permit Nos. 1096A-1, 1496-1, and 1670-1 are all authorized to withdraw from the same well and one dam. Water Right Nos. 1096A-1, 1670-1 authorize diversion of water for irrigation use and Water Right No. 1096A-1 and Water Permit No. 1496-1 authorize diversion of water for rural water system use. Documentation in the administrative file for Water Right No. 1670-1 indicates that the well is not valved such that it can be shut off when not in use for the beneficial uses listed on the permits. A letter dated September 9, 1998, indicates that when the water for that well is not being used for the beneficial uses described in the permits, it is used for

Report on Water Permit App. No. 2034-1

fish and wildlife propagation. The person writing the letter indicated they would prefer the Water Management Board not order the well to be shut off when not used for irrigation or rural water system withdrawals. It is likely the well continues to flow uncontrolled; thus, at the flow rate listed in Water Right No. 1096A-1 of 1.33 cfs, that well withdraws approximately 964 ac-ft/yr from the Madison aquifer.

Table 2: Permits with irrigation listed as one beneficial use, or are connected to an irrigation permit [10] [11]

Permit No.	Name/Business	Diversio n rate (cfs)	Acres Licensed/ Permitted	Average Report (ac-ft/yr)	Years of Irrigation Reports	Estimated average irrigation (ac-ft/yr)	Est. Non- irr. Use (ac-ft/yr)	Total Est. Withdrawa l (ac-ft/yr)
2773-2	Arrowhead Country Club	1.110	100.0	0.0	6	200.0	0.0	200.0
1635-1	Black Hills National Cemetery	0.820	54.5	94.7	28	94.7	356.4	451.1
1452-1	Black Hills State College	3.330	25.4	20.1	35	20.1	1,447.5	1,467.6
1670-1	Buddy L, Peggy A, Kami S Ireland	3.610	253.0	43.9	26	*	*	*
1096A-1	Butte Meade Sanitary Dist	1.330	0.0	N/A	0	*	*	963.5
2458-2	City of Rapid City	0.800	107.0	104.6	23	104.6	0.0	104.6
2002-1	City of Spearfish	1.330	40.0	0.0	3	80.0	0.0	80.0
2313-2	Coca-Cola Bottling	0.330	3.0	7.1	29	7.1	143.4	150.6
1899-1	Davis Ranches Inc	1.430	100.0	0.0	15	0.0	0.0	0.0
1650-1	Dennis L Miller	0.890	0.0	85.4	1	*	*	55.9
2673-2	Diocese of Rapid City	0.120	7.0	8.2	11	8.2	0.0	8.2
1009-1	Donald F/Ann J Brady	0.780	53.7	29.0	42	29.0	0.0	29.0
1185-1		0.380	22.5	115.0	42	115.0	***	115.0
2286-2	Donald Konechne	0.100	38.5	9.8	30	9.8	0.0	9.8
1707A-1	Elkhorn Ridge @ Frawley Ranches LLC	3.705	100.0	0.0	4	0.0	1,610.5	1,610.5
1707E-1**		0.000	0.0	14.2	17	14.2	0	14.2
1931-1		0.170	3.3	3.0	11	3.0	73.9	76.9
1945-1	Frawley Ranches LLC	1.110	265.0	53.4	10	530.0	0.0	530.0
1858-1	Glencoe Camp Resort II LLC	0.860	34.0	0.0	18	0.0	373.8	373.8
2593-2	Hart Ranch Development	0.490	72.5	29.8	17	29.8	213.0	242.8
1911-2	Hart Ranch Development Co	0.880	124.0	118.0	30	118.0	382.5	500.5
1725-2	Janice R Crowser	1.070	75.1	0.9	25	0.9	0.0	0.9
2012-1	Jesse Horstmann	0.500	43.5	0.0	2	87.0	0.0	87.0
858-2	John & Heidi McBride	9.360	655.8	6.4	40	6.4	0.0	6.4
1885-1	John T & Veronica Widdoss	0.110	22.0	18.5	7	44.0	35.7	79.7
1960-1	One Diamond Inc	1.280	150.0	130.1	8	300.0	556.4	856.4
1223-1	P & L Water and Hay LLP	0.670	263.0	186.1	42	186.1	0.0	186.1
1923-1	Roger and Jean Ranschau	0.110	3.0	0.8	12	0.8	47.8	48.6
2013-1	Santa Maria Land and Cattle Corp.	2.220	460.0	0.0	1	920.0	0.0	920.0
1363-1	Spearfish Canyon Country Club	0.900	80.1	66.4	37	66.4	0.0	66.4
2106-2	Stuart Rice	0.080	2.8	0.8	32	0.8	34.8	35.6
1842-1	Tom C Davis	0.440	330.0	0.0	19	0.0	0.0	0.0
2741-2	Tubbs Land & Cattle LLC	3.340	567.0	267.7	5	1,134.0	0.0	1,134.0
419-2	Wind Cave National Park	0.150	6.0	N/A	0	12.0	65.2	77.2
Total		43.805	4,061.7	1,414.0	628	4,122.1	5,340.9	10,482.4
* Discussed in text. **gives additional time to develop 1707A-1. *** Reports all use types in irrigation report								

Water Right No. 1650-1 does not require the water right holder to report annual withdrawals and allocates no acreage. It provides supplemental water supply from a flowing well for Water Right

No. 1231-1. Water Right No. 1231-1 permits a 110 acre-ft dam to provide water for a commercial livestock operation and irrigation of 134 acres. Water Right No. 1650-1 allows for direct irrigation from a Madison aquifer well of up to 2 acre-ft per acre for the land permitted by Water Right No. 1231-1. Kilts estimated that Water Right No. 1650-1 withdraws 55.9 ac-ft/yr [12]. This water right was transferred to a new owner in 2021. For the 2023 irrigation season, the owner reported using 85.36 ac-ft of water for irrigation. As this is the only year this owner has reported, the value of 55.9 ac-ft/yr will be used as their average until more years of reporting can establish an average.

There are 7 water rights/permits for water distribution systems that have indicated to the DANR Drinking Water Program [13] that they do not produce water from their own wells and are purchasing water from another system, so they are assumed to withdraw a negligible amount of water.

There are 48 water rights/permits that have a volume limit listed in their permit or have had their total withdrawal limited by a subsequent water right/permit held by the same person/entity. While many of those water rights/permits are required to report their withdrawals, they may develop their permits further to withdraw up to the limit on their permit, so the volume limit listed on their permits is assumed to be their total appropriation. The total volume limit listed by such permits is 27,615 ac-ft/yr.

There are 82 non-irrigation water rights/permits that do not have a volume limit listed in their permit and are not discussed above. They are estimated to withdraw their maximum instantaneous diversion rate 60% of the time, for a total estimated withdrawal of 15,279 ac-ft/yr. Based on Water Rights Staff experience, this estimate is likely to be higher than the actual withdrawals by those water rights/permits.

In addition to the potential withdrawals by future use permits described above, four other applications are deferred, held in abeyance, or pending review. Water Permit Application No. 2585-2 for Southern Black Hills Water System proposes to appropriate 1,600 ac-ft/yr but is deferred for further study. Water Permit Application No. 2685-2 for Powertech, Inc is held in abeyance pending federal permitting and proposes to appropriate 889 ac-ft/yr.

Summary of Statewide Hydrologic Budget

The best available estimate of recharge to the Madison aquifer in South Dakota is approximately 137,000 ac-ft/yr. The estimated withdrawals as described in the Statewide Discharge section are summarized in Table 3. The total estimated withdrawal, including withdrawals reserved for future use and held, or deferred applications is approximately 70,414 ac-ft/yr. This application proposes to withdraw up to 500 ac-ft/yr, if approved. Therefore, based on the statewide hydrologic budget, there is reasonable probability unappropriated water is available for this application.

Table 3: Summary of estimated average annual withdrawals and appropriations

Estimation Type	Count	Est. Use (ac-ft/yr)
Irrigation	34	10,482
Standby	7	0
Volume Limit	48	27,615
Diversion Rate Limit	82	15,279
<i>Subtotal (authorized to withdraw)</i>	171	53,376
Future Use	11	14,549
Pending/Deferred/held	2	2,489
Grand total	184	70,414

Local Hydrologic Budget

Carter, et al [9] used streamflow, precipitation, spring flow, estimated ground water flow, and well withdrawal data from 1987 to 1996 for the hydrologic budgets. This application is in Subarea 2 of their report. The boundaries of the Carter et al. [9] subareas were designed to minimize flow across subarea boundaries. Carter et al. [9] estimated the total recharge to the Madison and Minnelusa aquifers in Subarea 2 was 37.9 cfs. Assuming 55% of the recharge goes to the Madison aquifer, the estimated recharge to the Madison aquifer in Subarea 2 is 20.8 cfs, or approximately 15,101 ac-ft/yr [6] [9]. Carter, et al. [9] do not provide values for the recharge area of the Madison and Minnelusa formations for each subarea in their report, so it is possible the proportion of recharge area to those two aquifers is different within each subarea. There are 49 water rights/permits authorized to withdraw from Subarea 2 and two future use permits reserving water from Subarea 2. Domestic well withdrawals are negligible on the scale of this hydrologic budget. Using the same methods as described in the Statewide Discharge section, the total estimated withdrawal from Subarea 2 is 10,076 ac-ft/yr as compared to the estimated recharge of 15,101 ac-ft/yr. This application proposes to withdraw up to 500 ac-ft/yr, if approved. Therefore, based on the local hydrologic budget in combination with other information available, there is reasonable probability unappropriated water is available for this application.

Observation Wells

Administrative Rule of South Dakota 74:02:05:07 requires that the Water Management Board rely upon the record of observation wells, in addition to other information, to determine that recharge exceeds withdrawals to approve an application. The Water Rights Program maintains 25 observation wells completed into the Madison aquifer [14]. The nearest observation well to this application is MD-86A, located approximately 1 mile to the northwest of the proposed well. Figure 1 shows water level elevations in that well [14]. Water level data for MD-86A is representative of the fluctuations in the Madison aquifer near this application. Water level data in the observation well shows a level trend, on average. In general, water levels rise during periods of higher-than-average rainfall and decline during periods of lower-than-average rainfall, as well as seasonal declines by water use from nearby water rights/permits. This means that recharge and natural discharge are the dominant effects in the aquifer and natural discharge is available for

capture. Therefore, based on observation well analysis, there is reasonable probability unappropriated water is available for this application.

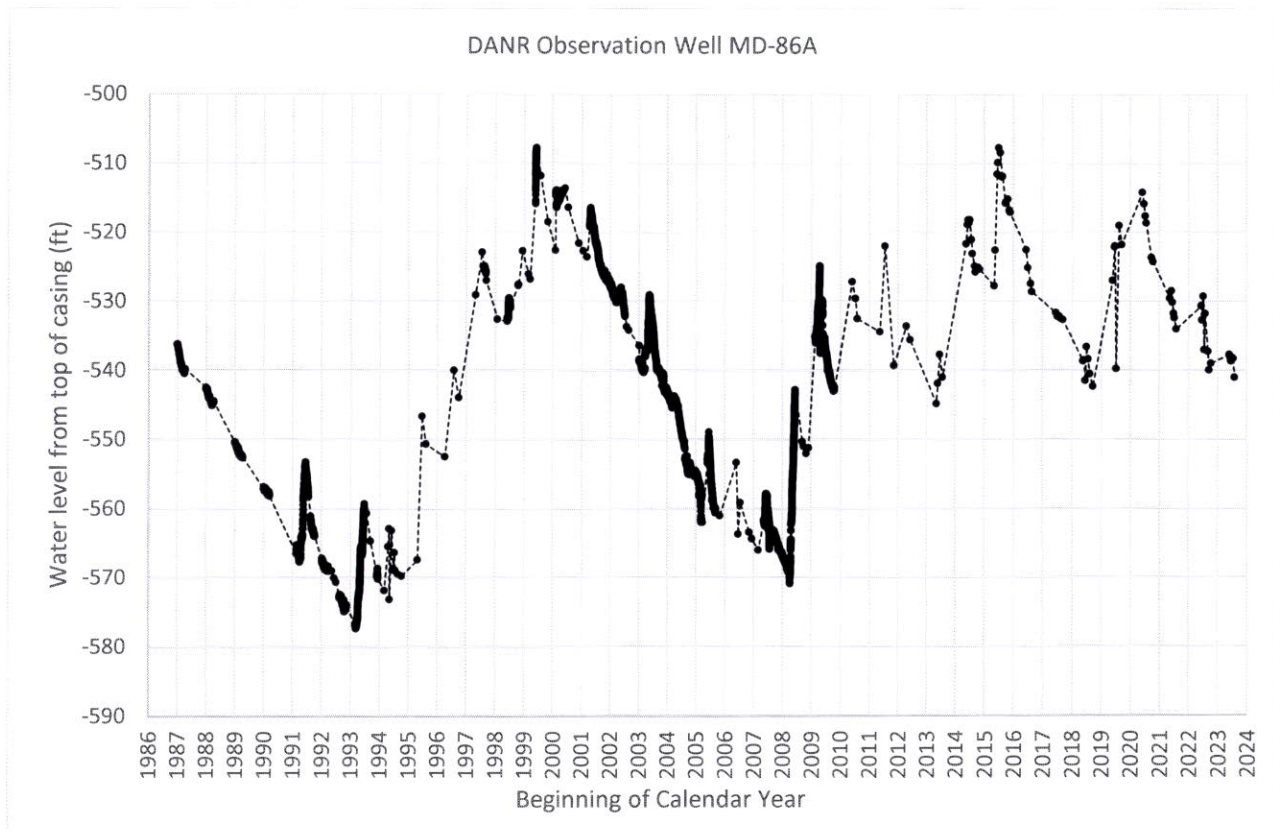


Figure 1: Water levels in Observation Well MD-86A [14]

Possibility of Unlawful Impairment of Existing Water Rights

The nearest water right/permits to this application completed into the Madison aquifer are Water Right Nos. 780-1 and 1287-1, held by the City of Sturgis, and Water Right No. 1684-1, held by Mike Ringer, all located approximately 0.5 miles due west of the proposed well. The nearest domestic well that is likely to be completed into the Madison aquifer on file with the Water Rights Program is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of the same section as the proposed well and was completed in 1981. The location of domestic wells is provided by the well driller on the well completion report. The Water Rights Program has historically interpreted an unlawful impairment of existing water rights to occur if a junior water right/permit causes a nearby adequate well with a senior water right/permit to become unable to withdraw at the rate it is entitled to or, if a domestic well is impacted, a water right/permit causes an adequate domestic well to be unable to withdraw at the rate needed to supply reasonable domestic use of water. Administrative Rule of South Dakota 74:02:04:20(6) defines an adequate well as:

...a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated

aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet

In the hearing for Water Permit Application No. 2313-2 for Coca-Cola Bottling Company, the Water Management Board determined that to put the waters of the state to maximum beneficial use, hydraulic head would not be protected as a means of water delivery [15]. Some drawdown from this application is likely to occur and nearby well owners may need to lower their pumps or install pumps to access the water in the aquifer. Exact aquifer behavior cannot be known without an aquifer performance test. The applicant must control their withdrawals so that nearby water rights/permits and adequate domestic wells are able to withdraw necessary water. There is no record of well interference complaints from the Madison aquifer in Meade County [16]. Observation wells completed into this aquifer near larger appropriative wells show limited drawdown when the large appropriative wells are in use [14]. Given the lack of well interference complaints in this aquifer in Meade County, the distance from the proposed well to the nearest appropriative and domestic wells on file, and limited drawdown shown in observation wells completed near larger appropriations, there is reasonable probability this application can be developed without unlawful impairment of existing water rights with adequate wells and adequate domestic wells.

Springs

The nearest major spring supplied by the Madison aquifer is the Elk Creek Springs, located approximately 9 miles southeast of this application. [17]. Upon considering the deferral of Water Permit Application No. 2585-2 for Southern Black Hills Water System, the Water Management Board adopted a conclusion of law stating in part, "... The only protection South Dakota law provides when considering an application for an underground water permit for flow from an artesian spring is under the public interest criteria" [18]. Given the distance between the proposed well site and the nearest springs, there is reasonable probability this application can be developed without noticeably impacting spring flow from the Madison aquifer.

Conclusions

1. Water Permit Application No. 2034-1 proposes to appropriate up to 500 ac-ft/yr at a maximum diversion rate of 1.00 cfs from one well to be completed into the Madison aquifer located in the SE ¼ SW ¼ Section 15-T5N-R5E for municipal use.
2. Based on the hydrologic budget and observation well analysis, there is reasonable probability unappropriated water is available for this application.
3. There is reasonable probability this application can be developed without unlawful impairment of existing domestic water uses and water rights.
4. There is a reasonable probability this application can be developed without noticeably impacting spring flow from the Madison aquifer.
5. This application is subject to a 20-year term limit.



Kimberly C. Drennon, E.I.

Natural Resources Engineer – DANR Water Rights Program

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- [11] SD Water Rights, "Irrigation reports," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2023.
- [12] W. K. Kilts, "Report to the Chief Engineer on Water Permit Application No. 1987-1," DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2019.
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**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPERS RIGHT AWAY.**

March 4, 2024

City of Sturgis
c/o Kyle McCutcheon
1057 Dudley Street
Sturgis SD 57785

Dear Mr. McCutcheon:

Water Permit Application No. 2034-1 have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Faith Independent printed in Faith (Ph # 605 967-2161) and the Black Hills Pioneer printed in Spearfish (Ph # 605 642-2761). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

NOTICE OF APPLICATION NO. 2034-1 to Appropriate Water

Notice is given that the City of Sturgis, SD – Well 8, 1057 Dudley Street, Sturgis SD 57785 has filed an application for a water permit to appropriate up to 500 acre-feet of water annually at a maximum pump rate of 1.00 cubic feet per second from one well to be completed into the Madison Aquifer (approximately 1,437 feet deep) located in the SE 1/4 SW 1/4 Section 15-T5N-R5E for municipal use. This site is located near the southern boundary of Sturgis SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2034-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by March 25, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by March 25, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at the total approximate cost of _

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, March 4, 2024 8:42 AM
To: legals@bhpioneer.com
Subject: 2034-1 City of Sturgis - Public Notice
Attachments: 2034-1 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 13, 2024.

City of Sturgis, SD – Well 8, c/o Kyle McCutcheon, 1057 Dudley Street, Sturgis SD 57785, 605-347-1832 has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol Ave, Pierre SD 57501.

Let me know if you have questions. **Please acknowledge receipt of this email.**

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, March 4, 2024 8:40 AM
To: faithind@faithsd.com
Subject: 2034-1 City of Sturgis - Public Notice
Attachments: 2034-1 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 13, 2024.

City of Sturgis, SD – Well 8, c/o Kyle McCutcheon, 1057 Dudley Street, Sturgis SD 57785, 605-347-1832 has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol Ave, Pierre SD 57501.

Let me know if you have questions. **Please acknowledge receipt of this email.**

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



STATE OF SOUTH DAKOTA)
) SS
County of Meade)

certify that the attached printed Notice was taken
from the Faith Independent

County of Meade and

03/13/2024

Kris Staller-Johnson
(Signature)

03/13/2024
(Date Signed)

NOTICE OF APPLICATION NO. 2034-1 to Appropriate Water

Notice is given that the City of Sturgis, SD — Well 8, 1057 Dudley Street, Sturgis SD 57785 has filed an application for a water permit to appropriate up to 500 acre-feet of water annually at a maximum pump rate of 1.00 cubic feet per second from one well to be completed into the Madison Aquifer (approximately 1,437 feet deep) located in the SE 1/4 SW 1/4 Section 15-T5N-R5E for municipal use. This site is located near the southern boundary of Sturgis SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2034-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duval for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must

concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by March 25, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above.

Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by March 25, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published March 13, 2024 at the approximate cost of \$36.40 and may be viewed free of charge at www.sdpublic-notices.com.

Meade County Commission Meeting (Tuesday, February 27, 2024)

Members present: Chairman Deering, Commissioner Creed, Commissioner Wieczorek, Commissioner Seaman, Commissioner Liggett.

A. Call to Order at 9:00 AM

1. **Pledge of Allegiance** led by Board of Commissioners.

2. **Prayer** led by Chairman Deering

3. **Approve the Agenda**
Motion to approve agenda by Seaman, second by Liggett.

Final Resolution: Motion Carries. Vote unanimous.

B. Routine Business

1. **Opportunity for Public Comment**

Chairman Deering opened the floor to public comment.

- James Gingras testified to suggest hand counting ballots and noted other counties in the surrounding areas considering hand counting ballots for future elections.
- Peter Vodenka testified with concerns regarding the ballot counting machines. There was additional discussion on an email sent by a former Meade County employee.
- Gerald Harvey of Pennington County testified on hand counting ballots and suggested that hand counting would be easier in Meade County than other areas due to the relatively small population.

- Cindy Cook testified requesting a special meeting for round table discussion. Commissioner Creed invited her to watch the ballots be counting, and Cook declined.
- Dale Buse testified to suggest hand counting ballots. There was additional discussion on whether the general population of Meade County would prefer hand counting ballots.
- Sara Schultz of Pennington County testified in favor of creating redundancy in the voting system in case there was an issue in the future, and suggested hand counting at a precinct level to prove the integrity of the machines.
- Andrew Lugare of Pennington County testified that he has worked as a poll worker previously and did not see anything questionable in 2022, but voiced support for Schultz's suggestion for redundancy.
- Connie Gupitl-Curry testified that she does not believe that there has been an issue with election integrity in Meade County but that she has heard stories from other parts of the country and wants to ensure that their votes are counted correctly. She voiced concerns regarding the machines since the County does not have complete control over them.

Chairman Deering reiterated that he has been watching the SD Canvassing website and is taking this issue seriously. He noted that he spoke with some residents of Tripp County after they went to hand counting and was informed that not all were happy with it. He stated that he does not feel the current system is corrupt. No action taken.

2. Auditor

The report is available on BoardDocs. No action taken.

3. EM/VSO

Emergency Manager / Veteran Services Officer gave the report available on BoardDocs. He noted that his tracked hours indicate he has spent 70% of hours acting as Veteran Services Officer and 30% of hours as Emergency Manager and reported that Meade County has the second highest number of resident veterans in the state.

Motion to authorize the Chairman and Auditor to sign the report and authorize execution of the report by Wieczorek, second by Liggett.

Final Resolution: Motion Carries. Vote unanimous.

4. Register of Deeds

The report is available on BoardDocs. No action taken.

5. Sheriff

Sheriff Pat West gave the report available on BoardDocs. He noted that the jail is fully staffed. No action taken.

6. Sheriff's Office - Jail

The report is available on BoardDocs. No action taken.

7. State's Attorney

The report is available on BoardDocs. No action taken.

8. Treasurer

Treasurer Robin Shrake gave the report available on BoardDocs. She noted that they have been working on out of state titles and that people have been paying their property taxes in full. She stated that the assessment freeze applications were mailed out to people who applied last year. No action taken.

C. Sheriff

1. **Signed Jail Contracts for 2024-2025**

There was discussion regarding the contracts to house inmates from, Butte, Corson, Dewey, Edmunds, Sully and Walworth Counties and the rates charged. There was additional discussion on transporting inmates by the Sheriff's Office or ambulance and the rates charged for those purposes. No action taken.

D. 10:00 Hearings

1. **Public Hearing for Highway Vacation for Canyon Spur Road**

Surveyor Shanon Vasknetz of Baseline Surveying and Planning Director Tonya Vig introduced the item. The identified ROW does not connect to the section line or serve Lot 29R. The section line to the south has not been opened. There was discussion on the ROW, which was put in place when Lot 29R was replatted into two lots and is no longer needed. Vig indicated no opposition to the vacation.

Motion to approve the vacation of the identified right-of-way by Liggett, second by Seaman.

Final Resolution: Motion Carries. Vote unanimous.

Prepared By:
Shanon E. Vasknetz Baseline Surveying, Inc. 2305 Junction Avenue
Sturgis SD 57785
(605) 490-1401

RESOLUTION VACATING DEDICATED PUBLIC RIGHT-OF-WAY

A Petition was presented to the Meade County Board of County Commissioners pursuant to SDCL § 31-3-6 from Greg and Victoria Konvalin, Land Owners, to vacate a portion of Canyon Spur Dedicated Public Right-Of-Way.

A public hearing was held on said Petition required by SDCL § 31-3-7 on the 27th day of February, 2024, at the

hour of 10 o'clock A.M., and

The Meade County Board of County Commissioners requested public comment concerning the vacation of said Canyon Spur Right-Of-Way, and

The Meade County Board of County Commissioners has determined that said Right-Of-Way does not provide access to any real property, does not form a part of the Meade County Highway or any part of the State of South Dakota Highway Systems and does not provide access to any public lands, and

The Meade County Board of County Commissioners does hereby declare that it would be in the public's best interest to vacate the 66' Wide portion of Canyon Spur Right-Of-Way located within the boundaries of Lot B of Lot 29R of Buffalo Ridge Estates, located in the SW1/4SW1/4 of Section 17, T3N, R7E, B.H.M., Meade County, South Dakota.

The Meade County Board of County Commissioners is satisfied that the notice of hearing was given as required by Statutes of the State of South Dakota, now therefore,

BE IT RESOLVED that the following section of Canyon Spur Right-Of-Way will be vacated:

That portion of the 66' Wide dedicated Public Right-Of-Way of Canyon Spur located within the boundaries of Lot B of Lot 29R of Buffalo Ridge Estates, located in the SW1/4SW1/4 of Section 17, T3N, R7E, B.H.M., Meade County, South Dakota. Said Right-Of-Way being 296.90 feet long and consisting of 0.488 Acres. (See Attached Exhibit.)

BE IT FURTHER RESOLVED that the Meade County Auditor is hereby authorized and directed to record a certified copy of this Resolution with the Meade County Register of Deeds.

Dated this 27th day of February, 2024.
/s/ Chairman Deering, Meade County

Board of County Commissioners
/s/ Rhea Crane, Meade County Auditor

E. Highway

1. **Traffic Count Analysis**
Highway Superintendent Troy Eastman introduced the report available on BoardDocs.

2. **Notice to Bidders – Magnesium Chloride**

There was discussion on the application last spring, which was impacted by rainfall.

Motion to begin the bid process for the budgeted 2024 Magnesium Chloride project with bid opening set for 10am on March 26, 2024, at the Erskine Building, 1300 Sherman Street, Sturgis, SD 57785 by Liggett, second by Wieczorek.

Final Resolution: Motion Carries. Vote unanimous.

F. **Director of Equalization**

1. **Resolution 2024-02 Fee Schedule**

Senior Appraiser Jon Olson introduced the updated fee schedule, and noted the major changes to the vendor fee, early application discount, and temporary campground fees.

Motion to approve the resolution adjusting the vendor and temporary campground fees by Seaman, second by Liggett.

Final Resolution: Motion Carries. Vote unanimous.

MEADE COUNTY RESOLUTION 2024-02

A RESOLUTION TO MODIFY SET FEES REFERENCED WITHIN MEADE COUNTY ORDINANCES

Whereas, the Board of County Commissioners has purposed to establish various fees that are referred to within Meade County's ordinances per the Fee Schedule labeled as Exhibit "A" attached.

NOW THEREFORE BE IT RESOLVED, that by the Meade County Commissioners, the revised fee schedule be established.

Dated this 27th day of February, 2024.

Continued on next page

PHYSICAL THERAPY & RECOVERY



HANDS ON HEALTH
Located in the Faith Clinic, Faith, SD
Ph: 605.374.5844 Fax: 605-374-9524

Days in Faith
Monday:
8:30 am - 5:00 pm
Wednesday:
7:00 am - 5:30 pm
Also By:
Special Appointment



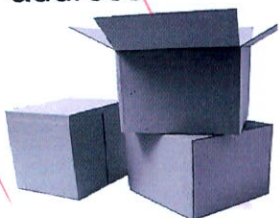
Drew Petersen, DPT



Courtney Dahlgren, DPT

Moving?

Notify The Faith Independent of your change of address before moving or as quickly as possible, so as not to miss a single issue.



RECEIVED

MAR 20 2024

OFFICE OF
WATER

Affidavit of Publication

STATE OF SOUTH DAKOTA:

COUNTY OF LAWRENCE:

Letitia Lister of said County and State being first duly sworn, on her oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Letitia Lister, and has been such a newspaper during the times hereinafter mentioned; and that said newspaper has a bonafide circulation of at least 200 copies weekly, and has been published within said County in the English language for at least one year prior to the first publication of the notice herein mentioned, and is printed in whole or in part in an office maintained at the place of publication; and that I, Letitia Lister, the undersigned, am the Publisher of said newspaper and have personal knowledge of all the facts stated in this affidavit; and that the advertisement headed:

Notice OF Application
No. 2034-1

a printed copy of which is hereto attached, was printed and published in said newspaper for 1 successive and consecutive weeks, the first publication being made on the 13th day of March, 2024, and the last publication on the _____ day of _____, _____, that the full amount of fees charged for publishing same, to-wit: The sum of \$ 38.82, insures solely to the benefit of the publisher of the BLACK HILLS PIONEER, that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any other person whomsoever.

[Signature]
Subscribed and sworn to before me this 13th day of mar., 2024

[Signature]

Notary Public, Lawrence County, South Dakota

My commission expires: 7-18-2025

**NOTICE OF
APPLICATION NO.
2034-1 to Appropriate
Water**

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Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed

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Published once at the total approximate cost of \$39.79 and can be viewed free of charge at www.sd-publicnotices.com.

#902
Mar 13

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, March 4, 2024 8:48 AM
To: RBush
Subject: 2034-1 City of Sturgis - Public Notice
Attachments: 2034-1 Rec.pdf; 2034-1 Ltr.pdf; 2034-1_PubNotice.pdf

Good morning,

Attached is a copy of the report, chief engineer's recommendation, and information regarding the public notice for your water permit application. As stated in the letter, **please contact the paper(s) as soon as possible to authorize publication and arrange for payment.** This information is also being mailed to you today.

Let me know if you have questions. Please acknowledge receipt of this email.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

APR 25 2024

City of Sturgis
c/o Kyle McCutcheon
1057 Dudley Street
Sturgis SD 57785

Dear Mr. McCutcheon:

Enclosed is Water Permit No. 2034-1 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

An application/inspection filing fee of \$1,350.00 was submitted with the application. The correct fee for this permit is \$1,250.00. Therefore, \$100.00 will be refunded to you. The refund check should be received within the next couple of weeks.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

April 25, 2024

PAYMENT REQUEST FORM

PAYEE: City of Sturgis
c/o Kyle McCutcheon
1057 Dudley Street
Sturgis SD 57785

FROM: DANR-Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Over payment of Application/Inspection Fee for Permit #2034-1

AMOUNT: \$100.00

FUNDING SOURCE: WR Fees

GENERAL:

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION:



I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
Posting on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 2034-1

Name of Applicant: City of Sturgis, SD - Well 8, Kyle McCutcheon

Date of Posting: 3/11/2024

Date of Removal: 4/25/2024

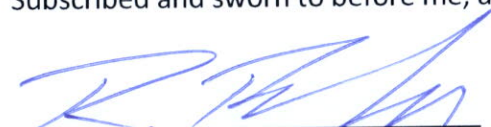


Ron Duvall, Engineer III

4/25/2024

Date

Subscribed and sworn to before me, a notary public, this 25th day of April, 2024.



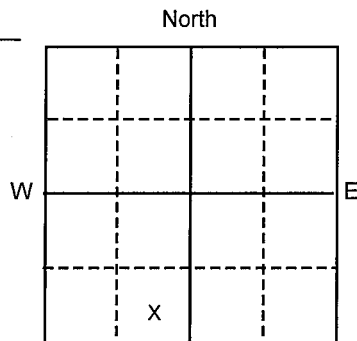
Notary Public - South Dakota Rachel Rodriguez
My commission expires: **My Commission Expires**
May 16, 2029



(SEAL)

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ SW ¼ Sec 15 Twp 5N Rg 5ECounty MeadePlease mark well
location with an "X"

Well Completion Date

Total Depth Date 9-24-24

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
_____ ft. from none (identify source)

PROPOSED USE:

☐ Domestic/Stock ☒ Municipal ☐ Business ☐ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

FWD ROTARY

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
94.0 LB/FT	20.00 IN	0.0 FT	60.0 FT	24.00 IN
54.5 LB/FT	13.38 IN	0.0 FT	984.0 FT	17.50 IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Neat Cmt.	70	15.1 Lb/gal	0.0 Ft	60.0 Ft
Neat Cmt.	196	15.8 Lb/gal	984.0 Ft	663.0 Ft

Describe grouting procedure
Pressure pumped through Casing long string, Tremmie surface casing. 283 sx 11.8# 663 to 184', 2162 SX 12.5# 184' - SFC

SCREEN:

☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information 12 1/4" open hole completion 984'-1085'

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Liquid Sd Hypo.
☐ No, Why Not? _____
Lab to which water
quality sample sent for analysis

MidContinent

Well Owner: City of Sturgis, South Dakota

Business Name: _____

Address: 1040 Harley Davidson WayCity, State, Zip: Sturgis SD 57785

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Spearfish	0	368
Minnekahta	368	406
Opeche	406	560
Minnelusa	560	992
Madison	992	1085

STATIC WATER LEVEL 550.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: Developed w/ Air
☐ Bailed

☒ Other

Pumping Level Below Land Surface

578.0 Ft. After 24.0 Hrs. pumped 660.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: 650.0 GPM

REMARKS

Pump Rated for 650 GPM @ 950'

RECEIVED

OCT 27 2025

OFFICE OF
WATERThis well was drilled under license # 814 and this
report is true and accurate.Drilling firm: KELLER DRILLING LLC

Signature of License Representative:

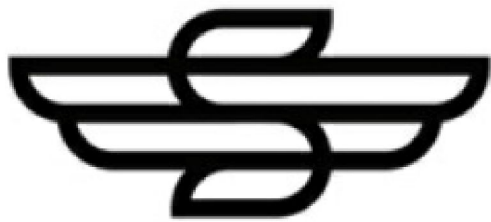
Albert P. Keller Jr.Digitally signed by Albert P. Keller Jr.
DN: cn=Albert P. Keller Jr., o=Keller Drilling LLC,
ou, email=Kellerdrilling15@hotmail.com, c=US
Date: 2022.06.09 14:01:34 -06'00'

Signature of Well Owner or Equitable Property Holder:

Date: _____

HYDROLOGIC LOG FOR

CITY OF



STURGIS

SOUTH DAKOTA

SERVICES PROVIDED BY



SOLUTIONS + SERVICE = SUCCESS



Foth

Foth Infrastructure & Environment, LLC

OPERATOR: CITY OF STURGIS, SOUTH DAKOTA
WELL NAME: STURGIS WELL 8 Project ID 23S200.00
STATE: SOUTH DAKOTA
COUNTY: MEADE
LOCATION: SE/SW SEC 15 T5N R5E
ELEVATION: GL 3585' KB 3598' LOG DEPTHS DATUM = GL
INTERVAL: SURFACE TO 1085' DATES: JULY 29, 2024 TO SEPT 24, 2024
GEOLOGIST: PETER J. WALDON PG 3389

