**AGENDA**
**CITY OF SHERIDAN**
**MAY 22, 2023**
**STUDY SESSION COUNCIL MEETING START 5:30 P.M.**

1. Briefing on 2023 Wastewater System Master Plan Findings and Recommendations - Utilities Director Dan Roberts

2. Discussion of Petition for a Speed Change on S. Thurmond Street Between Sioux Street and Burkitt Street from 30 MPH to 20 MPH - Public Work Director Hanns Mercer

3. Discussion of PL-23-9, Ordinance 2268, Story House Properties Annexation - Public Works Director Hanns Mercer

4. Discussion of PL-23-16, Resolution 25-23, Poll Motor Subdivision - Public Works Director Hanns Mercer

5. Budget Questions - City Administrator Stuart McRae

6. Discussion of Master Plan and Report Status - City Administrator Stuart McRae

7. Review Strategic Plan Process - City Administrator Stuart McRae

8. Discussion of Bid Award to Associated Construction Engineering for the Design, Construction, Bidding, and Construction Administration for the Police Department Boiler Replacement in the Amount of $26,750

# CITY OF SHERIDAN, WYOMING

55 Grinnell Street, P.O. Box 848, Sheridan Wyoming 82801
Ph (307) 674-6483 Fax (307) 674-2195


***Utilities***

## MEMORANDUM

| | |
|---|---|
| Project Name: | Briefing on 2023 Wastewater System Master Plan Findings and Recommendations - Utilities Director Dan Roberts |
| From: | Dan Roberts, Utilities Director |
| To: | Mayor and Council |
| CC: | City Administrator Stu McRae |
| Date: | 05/08/2023 |

**Background:**

The City has a current Wastewater System Master Plan entitled "City of Sheridan Wastewater Collection System Assessment", December, 2008. This master plan was largely focused on identifying community growth and the collection system improvements needed to best accommodate that growth. It did a general analysis of the capacity of the wastewater treatment plant, but did not discuss, or identify, any improvements needed to improve its operation and/or add additional capacity for the future. Since this master plan was conceived fourteen years ago, it was time for a fresh, new master plan to chart Sheridan's course for our wastewater collection and treatment needs over the next 20 to 30 years with a specific focus on assessing our wastewater treatment plant on its ability to meet the present and future needs of our community.

In the early spring of 2022, the City hired DOWL Engineering to develop a new 2023 Wastewater System Master Plan.

**Discussion:**

DOWL Engineering, with the help of their subconsultants, and City Staff has completed the 2023 Wastewater System Master Plan (Study). An Executive Summary of the findings and recommendations is attached for City Council review. A briefing, from DOWL and City Staff, on the Study findings and recommendations will be given to the City Council at their May 22nd Study Session.

**Attachments**

DOWL Executive Summary

# EXECUTIVE SUMMARY

The objective of this report is to summarize the condition assessment of the City of Sheridan Wastewater Treatment Facility and update the master plan for maintaining and developing the City of Sheridan sanitary sewer collection system for a 30-year planning period through 2052.

## Planning Basis

The master plan outlines the project planning area which generally consists of the Urban Services Area with a few minor additions based on future development identified in the Joint Land Use Plan. Projected growth rates were established to align with recent measured growth in services and align with other City planning documents and establish a target planning population for a 30-year projection to the year 2052 of approximately 28,300 people.

## Wastewater Collection System Evaluation

The sewer collection system hydraulic model within the planning boundary was updated with the most current geographical information system data. Existing and future loading conditions were modeled to find potential capacity bottlenecks and areas of concern when continuing to develop and expand the sewer collection system. Each of the City's sewer lift stations were inventoried and evaluated for general performance, condition and capacity.

## Summary of Recommended Collection System Improvements

Based on the results of the evaluation, the lift stations and collection system gravity pipe network have adequate capacity for future growth over the planning period. No interceptor or collection system improvements are a high priority based on capacity and future loading. To continue to build upon the work in this study and improve the model and GIS, the City should gather condition data on the collection system using the camera inspection equipment and the NASSCO PACP rating method. Infiltration and inflow investigations should continue with the use of flow monitoring equipment to compare dry and wet weather flows at specific manhole locations based on previously provided flow monitoring plans and the contributing pipes' material and structural rating. For future CIP projects, the model should be consulted to identify if the sewer in question should be upsized, or if it has adequate capacity and should be replaced in kind.

## Treatment Facility Capacity and Performance Status

The wastewater treatment facility planning included a review of growth implications and possible future changes to the City's discharge permit limits. The existing, rated plant capacity appears adequate to treat the projected flows through the 30-year planning period. Further, based upon review of the regulatory drivers in the State of Wyoming, it is not anticipated the City will be subject to significant changes in the permit limits warranting a major change in the treatment performance of the facility. With adequate flow and treatment capacity for the projected 30-year planning period, and no foreseen changes to the discharge limits, the City can readily invest in the existing plant with little risk of needing to abandon the existing facility to add capacity or incorporate alternative technology to improve the facility performance. Options are, however, included in this evaluation to illustrate and quantify possible future process upgrades to the treatment system both at the existing site and an alternative site north of the City.

## Treatment Facility Condition Assessment

The treatment facility condition assessment included a detailed evaluation of each unit process in the system. This included numerical scoring of each asset to assign an asset condition relative to the "risk of failure" combined with a "consequence of failure" score to reach an overall "asset risk" score. Facilities presenting existing health and safety issues and unit processes either currently inoperable or having the greatest consequence of failure are identified as the most pressing needs to address at the aging facility.

## Treatment System Alternatives Evaluation

Based on the results of the condition assessment and recommended capital improvement priorities, development of capital improvement recommendations included detailed alternatives analysis and alternative selection for applicable unit process improvements. Detailed alternatives analysis were included for the raw sewage pump station, the headworks screening facility, the biological oxidation ditch, the solids digestion and storage facilities, the disinfection facilities and conceptual biological treatment process replacement both at the current site and at an alternative site north of the City of Sheridan.

## Summary of Recommended Facility Improvements

Based upon the facility asset risk scoring and the alternatives analysis the recommended capital improvement priorities for the treatment facility include the following, in order of priority:

*Table E-1-1: Summary of Recommended Treatment Facility Improvement Priorities and Estimated Capital Costs*

| Priority | Alternative | Total Estimated Cost | Running Total |
|---|---|---|---|
| 1 | Site Electrical Improvements | $ 1,602,000 | $ 1,602,000 |
| 2 | WWTP Facility Building Htg/Ventilation | $ 270,000 | $ 1,872,000 |
| 3 | Secondary Clarifier Upgrade (South) | $ 1,010,000 | $ 2,882,000 |
| 4 | RSPS Upgrades - Dry Well Pumps | $ 1,830,000 | $ 4,712,000 |
| 5 | Belt Filter Press #2 & Sludge Pumps | $ 1,574,000 | $ 6,286,000 |
| | | | |
| TBD | Secondary Clarifier Upgrade (North) | $ 1,011,000 | $ 7,297,000 |
| TBD | Headworks Alt 1. - Rebuild Extg. | $ 1,511,000 | $ 8,808,000 |
| | | | |
| TBD | Oxidation Ditch - Alt 2; Upgrade to BNR | $ 4,817,000 | $ 13,625,000 |
| TBD | Digester Alternative 2 - New Digesters & Convert Extg. To Sludge Holding Tanks | $ 6,244,000 | $ 19,869,000 |
| TBD | Secondary Sludge Pump Station - Misc. | $ 695,000 | $ 20,564,000 |
| TBD | Misc. Capital Improvement Projects | $ 388,000 | $ 20,952,000 |

## Implementation Planning

The proposed schedule and funding plan is in process of being developed.

# CITY OF SHERIDAN, WYOMING

55 Grinnell Street, P.O. Box 848, Sheridan Wyoming 82801
Ph (307) 674-6483 Fax (307) 674-2195


***Public Works***

## MEMORANDUM

| | |
|---|---|
| Project Name: | Discussion of Petition for a Speed Change on S. Thurmond Street Between Sioux Street and Burkitt Street from 30 MPH to 20 MPH - Public Work Director Hanns Mercer |
| From: | Hanns Mercer, Public Works Director |
| To: | Mayor and Council |
| CC: | |
| Date: | 05/17/2023 |

**Recommendation:**

Staff recommends that there should be no change to the speed limit on S. Thurmond Street between Sioux Street and Burkitt Street.

**Background:**

The City of Sheridan received a petition from residents living on S. Thurmond Street to change the speed limit from 30 MPH to 20 MPH.

S. Thurmond Street is classified as a major collector road, and per our Public Infrastucture Design Standards, the posted speed limit is typically greater than or equal to 30 MPH.

At a Sheridan Urban Systems Advisory Committee meeting on 5/14/2014, it was recommended that S. Thurmond St. change from a major collector to a minor arterial. The recommended change in classification was not approved by City of Sheridan staff. The most up-to-date City of Sheridan Functional Classification Map has been attached for reference.

The Sheridan Police Department provided traffic accident data for S. Thurmond St. from 2020 to 2022. There were a total of 33 accidents recorded in this area for that period. The Sheridan Police Department also conducted a speed study along the 600 block of S. Thurmond Street between 3/24/23 to 4/5/23. According to the radar unit (JAMAR), the 85th percentile of drivers for both directions was 33 MPH. The accident data and speed study have been attached for reference.

**Attachments**

Map
Traffic Accidents
Study Synopsis
Speed Study

N

500 0 1000 2000 3000 Feet

0 500 1000 Meters

ML90 I/D SH. 01 — Sh.01

S 1706 Sh.14 — ML60B SH. 14 — 338

ML1706B — 1706

BURLINGTON NORTHERN R.R.

ML90B

BECKER RD.

ML337B SH. 13 — 337 — U 0337 Sh. 13 — ML337B — 0337

4445

FRANKLIN AVE.

P 60 — ML60B

FORT RD.

17TH ST. — 4401 — 18TH ST. — 4418

4439

DIANA ST.

4436 — NORLAND RD.

4419 — HIGHLAND AVE.

4412 — VISTA AVE.

ML330B SH. 08 — 330 — U 0330 Sh. 08 — ML330B — 0330

5TH ST. — KENTUCKY AVE. — PIONEER RD.

LEWIS ST.

4413 — CARTER AVE.

ML330B — 0330

DOW ST.

4427 — WYOMING ST.

4411

ML1704B — 1704

ML1704B SH. 12 — 336 — S 1704 Sh. 12 — ML1704B

4444 — EAST RIDGE RD.

4442 — COOLIDGE ST.

4443 — KROE LN.

4435

BRUNDAGE ST.

LOUCKS ST. — 1701 — ML1701B — BURKITT ST. — 4406 — 4407

BURLINGTON NORTHERN R.R.

BROOKS ST.

4428 — WYOMING AVE.

COLLEGE AVE.

SOFFEN AVE. — P 60 — ML60B

NEBRASKA ST. — COLORADO ST.

4426

4437 — THURMOND AVE. — ML332B — 0332 — HORN AVE.

SIOUX ST. — 4441

4423 — VIGIL AVE.

4411

1701 — ML1701B — GOOSE CREEK

S 1701 Sh. 09 — ML1701B SH. 09 — 331

BIG GOOSE CREEK

ZUM DR. — OLD AIRPORT RD. — 0333

4420 — BIG HORN AVE.

4411

BRUNDAGE LN. — 0334 — P 61

U 0334 Sh. 19 — 334 — ML334B SH. 19 — ML334B — ML302B

SHERIDAN COUNTY AIRPORT

U 0332 Sh. 10 — ML332B SH. 10 — 332

ML302B — 0302

S-0302 Sh. 03 — ML302B SH. 03

ML60B — 1708

S 1708 Sh. 02 — ML1708B SH. 02

4404 — WOODLAND PARK RD.

PARADISE PARK RD. — 4403

LOWER SHERIDAN RD.

ML332B

SWAIN RD.

0332

1708 — ML60B

ML1703B — 1703

METZ RD.

LOWER PEOPLES RD.

MAVERICK DR.

CROSS RD. — KNODE RD.

ML90B — Sh.01 — ML90 I/D SH. 01

**URBAN BOUNDARY and ROADWAY FUNCTIONAL CLASSIFICATION CONCURRENCE**

We, as responsible federal, state and local officials concur with the Urban Boundary, and Roadway Functional Classification.

Sheridan Urban Systems Committee Chairman

signed on this 13th day of JUNE, 2016

Bob Rolston
Chairman, Urban System Advisory Committee

Bob Rolston
Chairman, Sheridan County Commission

Mayor, City of Sheridan

Systems Planning Engineer, WYDOT

Wyoming Division Planning / Research Manager, FHWA

Blue File# 62297

**LEGEND**

| | EXISTING ROUTES | PROPOSED ROUTES |
|---|---|---|
| PRINCIPAL ARTERIALS | | |
| INTERSTATE | | |
| FREEWAY & EXPRESSWAYS | | |
| OTHER | | |
| MINOR ARTERIAL | | |
| MAJOR COLLECTOR | | |
| MINOR COLLECTOR | | |
| LOCAL ROADS | | |
| LOCAL STREETS | | |
| URBAN BOUNDARY | | |
| CENTRAL BUSINESS DISTRICT | | |
| URBAN STSTEM ROUTE | 4612 | |
| ML ROUTE SYSTEM | ML56B | |

URBAN ROADWAY FUNCTIONAL CLASSIFICATION

# SHERIDAN

SHERIDAN COUNTY
WYOMING

**ORIGINAL SIGNATURES ON FILE**

**2016**

TECHNICAL REVISIONS: 10/10/2016

SV - 5B

PRINT DATE: 2/2017

SHERIDAN DIRECTORY NSHEREC.DGN SAVED VIEW - NFUNC

# MEMORANDUM

To: Chief Koltiska
From: Sarah Benavidez
Subject: Accidents on Thurmond 2020-2022
Date: 2/9/2023

---

## Traffic Accidents on Thurmond St - 1/1/2020 thru 12/31/2022

| | 2020 | 2021 | 2022 | Total |
|---|---|---|---|---|
| **Accidents** | 12 | 8 | 7 | 27 |
| **DWUI Accidents** | 1 | 0 | 1 | 2 |
| **Hit & Run Accidents** | 1 | 0 | 3 | 4 |
| **Total Accidents** | **14** | **8** | **11** | **33** |

## Narrative

Synopsis: A traffic study was requested for the 600 block of S Thurmond St. A JAMAR unit was placed and will be left on scene for one week.

---

Sheridan Police Department
Investigation Narrative

Case#: 23P002373
Date of Report: 3/25/23
Report Prepared by: Shafer
Suspect: Society
Offense(s) charged: N/A
Evidence collected: N/A
Files Attached: JAMAR Reports x3
Supplements Attached: N/A

Case Summary:
Please see narrative.

Narrative:

A JAMAR study was requested for the 600 block of S Thurmond St. A JAMAR unit was placed on 3/24/23 and removed on 4/5/23. The JAMAR unit stopped recording on 4/3/23.

According to the study, on both directions combined, 85% of drivers are going 33mph through the area.

Case Disposition:
No further action.

**Sheridan Police Department**
45 W. 12th St.
Sheridan, Wyoming
307.672.2413



Site Code: 00000001
Station ID:

Direction 1

| 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 | 51-55 | 56-60 | 61-65 | >65 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 36 | 102 | 586 | 3454 | 1980 | 114 | 7 | 1 | 0 | 0 | 0 | 1 |

85 percentile = 31

Direction 2

| 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 | 51-55 | 56-60 | 61-65 | >65 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 36 | 120 | 463 | 2259 | 2242 | 390 | 22 | 4 | 2 | 0 | 0 | 1 |

85 percentile = 33

Combined

| 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 | 51-55 | 56-60 | 61-65 | >65 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 72 | 222 | 1049 | 5713 | 4222 | 504 | 29 | 5 | 2 | 0 | 0 | 2 |

85 percentile = 32

# CITY OF SHERIDAN, WYOMING

55 Grinnell Street, P.O. Box 848, Sheridan Wyoming 82801
Ph (307) 674-6483 Fax (307) 674-2195


***Public Works***

## MEMORANDUM

| | |
|---|---|
| Project Name: | Discussion of PL-23-9, Ordinance 2268, Story House Properties Annexation - Public Works Director Hanns Mercer |
| From: | Hanns Mercer, Public Works Director |
| To: | Mayor and Council |
| CC: | |
| Date: | 05/04/2023 |

**Recommendation:**

Staff recommends approval of PL-23-9, Ordinance 2268, Story House Properties Annexation, annexing approximately 175.56 acres into the City of Sheridan, to be zoned B-2 Business District. Located at 2423 E. 5th St. in the SE1/4, S1/2NE1/4, Section 24, Township 56 North, Range 84 West.

**Background:**

The applicant, Sean Higgins for Story House Property Company, LLC, is requesting the annexation of 175.56 acres located at in the SE1/4, S1/2NE1/4, Section 24, Township 56 North, Range 84 West.

*The property is located in Sheridan County, just north of Wyoming State Highway 336 (Wyarno Road) and east of Industrial Lane. The property is currently zoned Urban Residential. The property is bordered to the north and west by Sheridan County property zoned Urban Residential. The property to the east is Sheridan County property zoned Agricultural. Properties to the south are zoned Industrial, with one under the City of Sheridan jurisdiction and two under Sheridan County jurisdiction.*

Access to the property is from the south on Wyarno Road. The property is located west of Industrial Lane, which is a public road in the City of Sheridan and north of Wyarno road, a public road under WYDOT jurisdiction. The property has no previous development and a history of agricultural leases.

ZONING:
As stated earlier, the property's current zoning is Urban Residential. The applicant is requesting the B-2 Business District as the new zoning in the City for the property. The B-2 request is an effort to match the existing B-2 property west of Industrial Lane.

UTILITIES:
Phase 1: City of Sheridan utility lines are located west of the property along E. 5th Street. The existing water line at Industrial Lane potentially needs to be enlarged, beginning at East Ridge Road. Sanitary sewer lines will need to be extended from Valley View Dr along E. 5th Street until reaching the property.

Phase 2: For full development of the property, the water line from Skeel St would need to be extended to the property due to pressure zones. The applicant is currently working with the City of Sheridan as the City has been working towards the Northeast Water and Sewer Extension for over the last 10 years.

NOTICES:
In accordance with WY§ 15-1-405, notices for this annexation were mailed at least 15 business days prior to the date of the public hearing. Notices were sent to surrounding property owners within ½ mile of the new corporate limits of the City of Sheridan. At the time of writing this staff report, the staff had not received any inquiries or oppositions about this annexation application.

ANNEXATION REPORT SUMMARY:

Location:

A tract of land situated in the SE1/4 and S1/2NE1/4 of Section 24, Township 56 North, Range 84 West, of the Sixth Principal Meridian, Sheridan County, Wyoming and is more particularly described as follows:

Beginning at the center-North one-sixteenth corner of Section 24, monumented by an aluminum cap PLS 6594; thence N89°19'58"E a distance of 2642.22 feet to the North one-sixteenth corner of Section 24, monumented by an aluminum cap PLS 6812; thence S00°03'03"E a distance of 1355.50 feet to the East quarter corner of Section 24, monumented by an aluminum cap PLS 2608; thence along the East line of Section 24 S00°02'46"E a distance of 1128.97 feet to a point of intersection with the northwesterly right-of-way of State Highway No. 336, monumented by an aluminum cap PLS 6812; thence continuing along said northwesterly right-of-way S14°03'06"W a distance of 676.46 feet, monumented by a highway monument; thence through a curve to the right, having a radius of 1045.92 feet, a central angle of 76°57'52", an arc length of 1404.97 feet, a chord bearing of S52°31'12"W, and a chord length of 1301.69 feet, monumented by a highway monument; thence S01°14'12"W a distance of 24.84 feet, monumented by a highway monument; thence N89°00'40"W a distance of 1464.84 feet, monumented by an aluminum cap PLS 6812; thence leaving said right-of-way and on the center quarter line of said Section 24, N00°16'03"E a distance of 1422.12 feet, monumented by an aluminum cap PLS 14277; thence leaving said center quarter line, S89°00'40"E a distance of 1348.16 feet, monumented by an aluminum cap PLS 14277; thence N00°16'03"E a distance of 1758.52 feet, monumented by an aluminum cap PLS 14277; thence N89°00'40"W a distance of 1348.16 feet to a point on the center quarter line of Section 24, monumented by an aluminum cap PLS 14277; thence along said center quarter line N00°16'03"E a distance of 720.94 feet to the point of beginning.

Said tract contains 175.56 acres, more or less, and is subject to any and all easements, rights-of-way, reservations, and other encumbrances that have been legally acquired.

Proposed Zoning:

B-2 (Consistent with nearby City of Sheridan zoning)

Estimated Areas:

1. Commercial Acreage: 24.6 acres
2. Commercial Square Footage: 650,000 square feet
3. Net Residential Acreage: 73.0 acres
4. Residential Density: 7 unit/acre
5. Number of Residential Lots: 150 lots
6. Park Land and Open Space: 52.0 acres
7. Acreage for Other Services (schools, etc.): 26.0 acres

Cost for Public Improvements:
The cost of public improvements for the property to be annexed is split into two phases. Phase 1 can occur with the extension of City of Sheridan utilities from E. 5th Street along Wyarno Road. Phase 2 would require the completion of the Northeast Water and Sewer Extension to extend water from Skeel St to the northern portion on the property.
Phase 1

1. Right of way grading estimated (including pads): $2,311,287
2. Sanitary Sewer (Onsite): $202,044
3. Sanitary Sewer (Offsite): $437,764

4. Water Lines (Onsite): $233,919
5. Water Lines (Offsite): $292,399
6. Storm Drain: $123,600
7. Curb/Gutter/Sidewalks: $238,200
8. Paving: $494,444

Phase 2

1. Right of way grading estimated (including pads): $5,844,408
2. Sanitary Sewer (Onsite): $809,370
3. Sanitary Sewer (Offsite): $2,711,147
4. Water Lines (Onsite): $595,144
5. Water Lines (Offsite): $2,355,000
6. Storm Drain: $373,200
7. Curb/Gutter/Sidewalks: $893,250
8. Paving: $1,854,200

**Discussion:**

(a) Before any territory is eligible for annexation, the governing body of any city or town at a hearing as provided in W.S. 15-1-405 shall find that:

(i) An annexation of the area is for the protection of the health, safety and welfare of the persons residing in the area and in the city or town;
(ii) The urban development of the area sought to be annexed would constitute a natural, geographical, economical and social part of the annexing city or town;
(iii) The area sought to be annexed is a logical and feasible addition to the annexing city or town and the extension of basic and other services customarily available to residents of the city or town shall, within reason, be available to the area proposed to be annexed;
(iv) The area sought to be annexed is contiguous with or adjacent to the annexing city or town, or the area meets the requirements of W.S. 15-1-407;
(v) If the city or town does not own or operate its own electric utility, its governing body is prepared to issue one (1) or more franchises as necessary to serve the annexed area pursuant to W.S. 15-1-410; and
(vi) The annexing city or town, not less than twenty (20) business days prior to the public hearing required by W.S. 15-1- 405(a), has sent by certified mail to all landowners and affected public utilities within the territory a summary of the proposed annexation report as required under subsection (c) of this section and notice of the time, date and location of the public hearing required by W.S. 15-1-405(a).

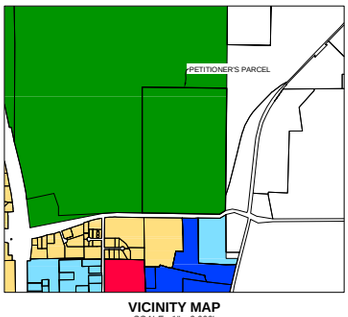
(b) Contiguity will not be adversely affected by the existence of a platted street or alley, a public or private right-of-way, a public or private transportation right-of-way, a lake, stream, reservoir or other natural or artificial waterway located between the annexing city or town and the land sought to be annexed.

(c) An annexing municipality shall prepare a proposed annexation report as specified in this subsection. The report shall, at a minimum, contain:

(i) A map of the area proposed to be annexed showing identifiable landmarks and boundaries and the area which will, as a result of the annexation then be brought within one-half (½) mile of the new corporate limits of the city, if it has exercised the authority granted under W.S. 15-3-202(b)(ii);
(ii) The total estimated cost of infrastructure improvements required of all landowners by the annexing municipality related to the annexation;
(iii) A list of basic and other services customarily available to residents of the city or town and a timetable when those services will reasonably be available to the area proposed to be annexed;
(iv) A projected annual fee or service cost for services described in paragraph (iii) of this subsection;
(v) The current and projected property tax mill levies imposed by the municipality; and
(vi) The cost of infrastructure improvements required within the existing boundaries of the municipality to accommodate the proposed annexation.

**Attachments**

Annexation Plat
Annexation Report
Petition
Aerial Map
Ordinance 2268



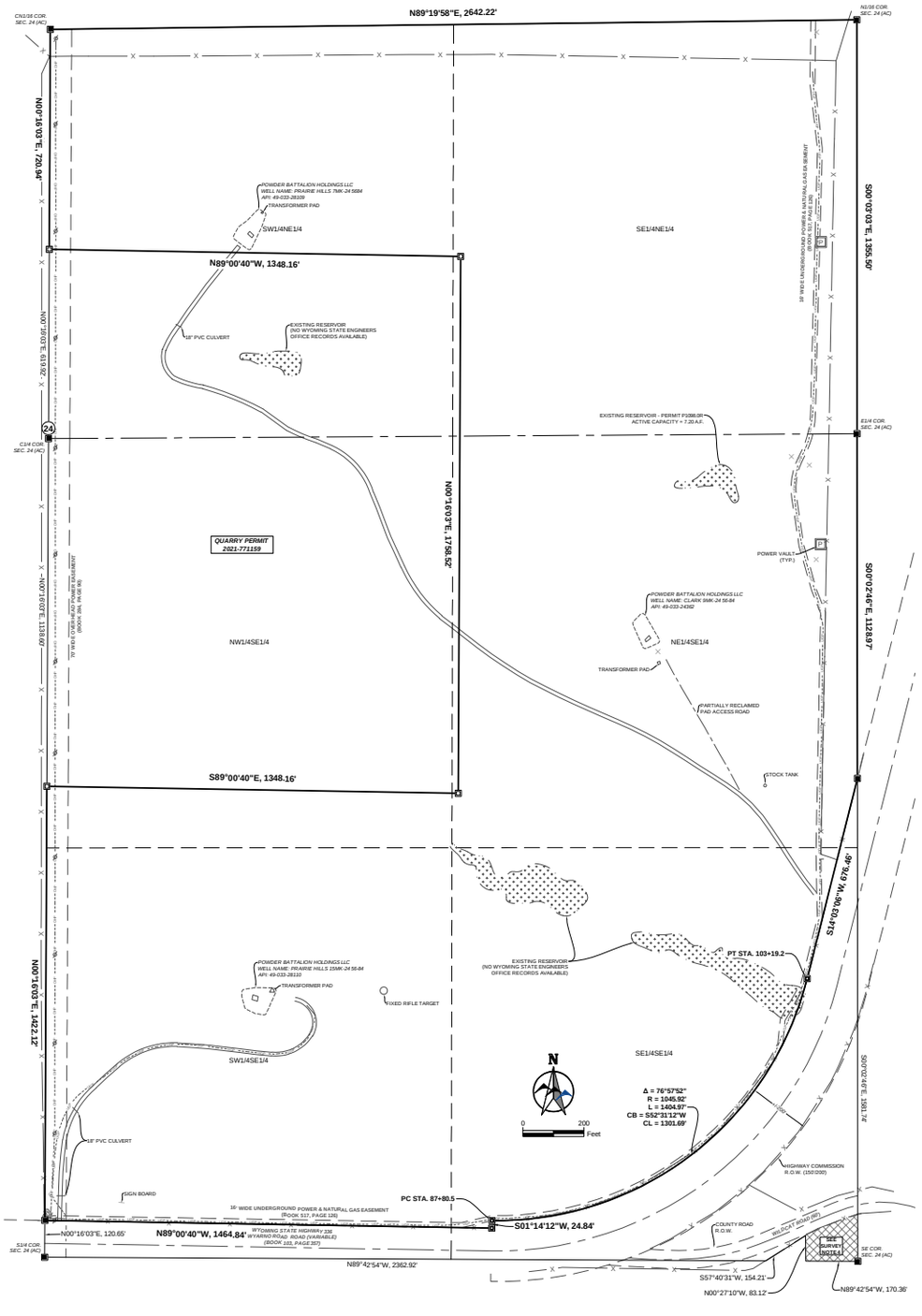

**VICINITY MAP**
*SCALE : 1" = 2,000'*

- RECOVERED BRASS CAP
- RECOVERED ALUMINUM CAP
- RECOVERED HIGHWAY MONUMENT
- SET REBAR WITH ALUMINUM CAP PLS 14277
- POWER POLE
- POWER METER
- POWER VAULT
- PETITIONER'S BOUNDARY
- ALTA BOUNDARY
- QUARTER LINE
- SIXTEENTH LINE
- EASEMENT LINE
- FENCE LINE
- ROAD CENTERLINE
- ROAD EDGE
- OVERHEAD POWER
- UNDERGROUND POWER
- CBM PAD BOUNDARY
- EDGE OF WATER
- RESERVOIR AREA
- URBAN RESIDENTIAL ZONING
- CORPORATE ZONING
- COMMERCIAL 1 ZONING
- INDUSTRIAL 1 ZONING
- INDUSTRIAL 2 ZONING
- AGRICULTURAL ZONING

***CERTIFICATE OF SURVEYOR:***

TO STORY HOUSE MANAGEMENT, ITS SUCCESSORS AND/OR ASSIGNS.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 4, 8, 11 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED IN MARCH 2022.




***TITLE COMMITMENT:***

FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT NUMBER: 58684
COMMITMENT DATE: JANUARY 3, 2022 AT 5:00 PM

***SCHEDULE B, PART II EXCEPTIONS***

1. NOT PLOTTED, NONE PROVIDED
2. NOT PLOTTED, NONE PROVIDED
3. NONE OBSERVED, NONE PROVIDED
4. NOT PLOTTED, NONE PROVIDED
5. NOT PLOTTED, NONE PROVIDED
6. PLOTTED AND LABELED AS SHOWN, OWNERSHIP UNCLEAR
7. NOT PLOTTED, NOT A MATTER OF SURVEY
8. NOT PLOTTED, NONE PROVIDED
9. NOT PLOTTED, NOT A MATTER OF SURVEY
10. NONE OBSERVED
11. PLOTTED AND LABELED AS SHOWN
12. PLOTTED AND LABELED AS SHOWN
13. NONE PLOTTED, NONE PROVIDED
14. BOOK 103, PAGE 357, PLOTTED AND LABELED AS SHOWN
15. BOOK 384, PAGE 90, PLOTTED AND LABELED AS SHOWN
16. BOOK 421, PAGE 144, NOT PLOTTED, NOT A MATTER OF SURVEY
17. BOOK 517, PAGE 126, PLOTTED AND LABELED AS SHOWN
18. QUARRY PERMIT RECORDING # 2021-771159, PLOTTED AND LABELED AS SHOWN
19. N/A

***ANNEXATION DESCRIPTION:***

A TRACT OF LAND SITUATED IN THE SE1/4 AND S1/2NE1/4 OF SECTION 24, TOWNSHIP 56 NORTH, RANGE 84 WEST, OF THE SIXTH PRINCIPAL MERIDIAN, SHERIDAN COUNTY, WYOMING AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE CENTER-NORTH ONE-SIXTEENTH CORNER OF SECTION 24, MONUMENTED BY AN ALUMINUM CAP PLS 6594; THENCE N89°19'58"E A DISTANCE OF 2642.22 FEET TO THE NORTH ONE-SIXTEENTH CORNER OF SECTION 24, MONUMENTED BY AN ALUMINUM CAP PLS 6812; THENCE S00°03'03"E A DISTANCE OF 1355.50 FEET TO THE EAST QUARTER CORNER OF SECTION 24, MONUMENTED BY AN ALUMINUM CAP PLS 2608; THENCE ALONG THE EAST LINE OF SECTION 24 S00°02'46"E A DISTANCE OF 1128.97 FEET TO A POINT OF INTERSECTION WITH THE NORTHWESTERLY RIGHT-OF-WAY OF STATE HIGHWAY NO. 336, MONUMENTED BY AN ALUMINUM CAP PLS 6812; THENCE CONTINUING ALONG SAID NORTHWESTERLY RIGHT-OF-WAY S14°03'06"W A DISTANCE OF 676.46 FEET, MONUMENTED BY A HIGHWAY MONUMENT; THENCE THROUGH A CURVE TO THE RIGHT, HAVING A RADIUS OF 1045.92 FEET, A CENTRAL ANGLE OF 76°57'52", AN ARC LENGTH OF 1404.97 FEET, A CHORD BEARING OF S52°31'12"W, AND A CHORD LENGTH OF 1301.69 FEET, MONUMENTED BY A HIGHWAY MONUMENT; THENCE S01°14'12"W A DISTANCE OF 24.84 FEET, MONUMENTED BY A HIGHWAY MONUMENT; THENCE N89°00'40"W A DISTANCE OF 1464.84 FEET, MONUMENTED BY AN ALUMINUM CAP PLS 6812; THENCE LEAVING SAID RIGHT-OF-WAY AND ON THE CENTER QUARTER LINE OF SAID SECTION 24, N00°16'03"E A DISTANCE OF 1422.12 FEET, MONUMENTED BY AN ALUMINUM CAP PLS 14277; THENCE LEAVING SAID CENTER QUARTER LINE, S89°00'40"E A DISTANCE OF 1348.16 FEET, MONUMENTED BY AN ALUMINUM CAP PLS 14277; THENCE N00°16'03"E A DISTANCE OF 1758.52 FEET, MONUMENTED BY AN ALUMINUM CAP PLS 14277; THENCE N89°00'40"W A DISTANCE OF 1348.16 FEET TO A POINT ON THE CENTER QUARTER LINE OF SECTION 24, MONUMENTED BY AN ALUMINUM CAP PLS 14277; THENCE ALONG SAID CENTER QUARTER LINE N00°16'03"E A DISTANCE OF 720.94 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 175.56 ACRES, MORE OR LESS, AND IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHTS-OF-WAY, RESERVATIONS, AND OTHER ENCUMBRANCES THAT HAVE BEEN LEGALLY ACQUIRED.

***SURVEY NOTES***

1. HORIZONTAL DATUM: NAD83(2011)
2. COORDINATE SYSTEM: WYOMING STATE PLANE, EAST CENTRAL ZONE, US FOOT (GROUND)
3. PROJECT DETAILS:
   - 3.1. LATITUDE: 44°49'23.7425"
   - 3.2. LONGITUDE: -106°55'38.29318"
   - 3.3. HEIGHT: 3883.261
   - 3.4. SCALE FACTOR: 1.0002354098
4. AREA FENCED AND OCCUPIED BY CHARLES W. HOLLOWAY & LORETTA J. HOLLOWAY, SEE WARRANTY DEED RECORDED IN BOOK 378, PAGE 540. THE PROPERTY IS DESCRIBED AS BEING LOCATED IN LOT 4, SECTION 19, T56N, R85W. IT DOES NOT DESCRIBE LAND LOCATED IN SE1/4 OF SECTION 24, T56N, R84W. THE OVERLAP AS SHOWN ON THIS SURVEY IS DUE TO AN UNMARKED 3" BRASS CAP THAT WAS NOT ACCEPTED AS THE SOUTHEAST CORNER OF SECTION 24. AN ALUMINUM CAP PER PLS 6594 WAS ACCEPTED AS THE SOUTHEAST CORNER OF SECTION 24 IN THIS SURVEY.
5. EXACT LOCATION OF WATER, POWER, GAS LINES AND APPURTENANCES WERE NOTE LOCATED TO THE COAL BED METHANE (CMB) SITES. EXACT LOCATIONS ARE UNKNOWN. ONE-CALL TICKET 20220600866, SUBMITTED FEBRUARY 10, 2022

***TABLE A NOTES***

1. MONUMENTS ON SUBJECT PROPERTY PERIMETER RECOVERED AS SHOWN AND LABELED
2. N/A
3. N/A
4. GROSS LAND AREA = 175.56 ACRES
5. N/A
6. N/A
7. N/A
8. SUBSTANTIAL FEATURES ARE SHOWN AND LABELED
9. N/A
10. SEE SURVEY NOTE 4
11. UTILITY FEATURES ARE SHOWN AND LABELED, SEE SURVEY NOTE 5
12. N/A
13. N/A
14. N/A
15. N/A
16. N/A
17. N/A
18. N/A
19. N/A
20. N/A

# ANNEXATION PLAT

*SE1/4, S1/2NE1/4, SECTION 24, T.56N., R.84W., SHERIDAN CO., WYOMING*

**PREPARED FOR:**
STORY HOUSE MANAGEMENT
40 E WORKS STREET, SUITE #1B
SHERIDAN, WY 82801

**PREPARED BY:**
WWC ENGINEERING
1645 TERRA AVE.
SHERIDAN, WY 82801
(307) 672-0761
www.wwcengineering.com

| NO. | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

DESIGNED BY: N/A
DRAWN BY: SWC
CHECKED BY: DT
DATE: 4/26/2023

PROJECT NO.: 2023163

SHEET
1 OF 1

K:\SHERIDAN\STORY HOUSE MANAGEMENT\2023137 STORY HOUSE VILLAGE\05CAD\SHEETS\2023137-ANNEXATION PLAT.DWG 4/27/2023 4:50 PM

# STORY HOUSE PROPERTIES ANNEXATION REPORT

**PREPARED FOR:**

**STORY HOUSE PROPERTIES**

WWC ENGINEERING

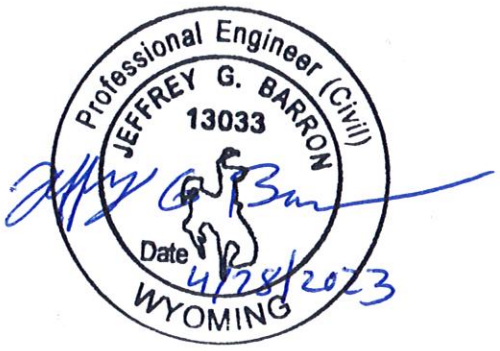
April 2023

# STORY HOUSE PROPERTIES ANNEXATION REPORT


Prepared for: Story House, Inc.
40 E Works St #1B
Sheridan, WY 82801

Prepared by: WWC Engineering
1849 Terra Avenue
Sheridan, WY 82801
(307) 672-0761

Principal Author: Jeff Barron, P.E.

# TABLE OF CONTENTS

Location ..... 1

Proposed Zoning: ..... 1

Estimated Areas ..... 1

Phase 1 Infrastructure ..... 2

Phase 2 Infrastructure ..... 2

# LIST OF ATTACHMENTS

| | |
|---|---|
| Attachment A | DOWL Northeast Sheridan Infrastructure Project |
| Attachment B | DOWL WWDC Level I Study |
| Attachment C | City of Sheridan WWDC Grant Application |

## LOCATION

A tract of land situated in the SE1/4 and S1/2NE1/4 of Section 24, Township 56 North, Range 84 West, of the Sixth Principal Meridian, Sheridan County, Wyoming and is more particularly described as follows:

Beginning at the center-North one-sixteenth corner of Section 24, monumented by an aluminum cap PLS 6594; thence N89°19'58"E a distance of 2642.22 feet to the North one-sixteenth corner of Section 24, monumented by an aluminum cap PLS 6812; thence S00°03'03"E a distance of 1355.50 feet to the East quarter corner of Section 24, monumented by an aluminum cap PLS 2608; thence along the East line of Section 24 S00°02'46"E a distance of 1128.97 feet to a point of intersection with the northwesterly right-of-way of State Highway No. 336, monumented by an aluminum cap PLS 6812; thence continuing along said northwesterly right-of-way S14°03'06"W a distance of 676.46 feet, monumented by a highway monument; thence through a curve to the right, having a radius of 1045.92 feet, a central angle of 76°57'52", an arc length of 1404.97 feet, a chord bearing of S52°31'12"W, and a chord length of 1301.69 feet, monumented by a highway monument; thence S01°14'12"W a distance of 24.84 feet, monumented by a highway monument; thence N89°00'40"W a distance of 1464.84 feet, monumented by an aluminum cap PLS 6812; thence leaving said right-of-way and on the center quarter line of said Section 24, N00°16'03"E a distance of 1422.12 feet, monumented by an aluminum cap PLS 14277; thence leaving said center quarter line, S89°00'40"E a distance of 1348.16 feet, monumented by an aluminum cap PLS 14277; thence N00°16'03"E a distance of 1758.52 feet, monumented by an aluminum cap PLS 14277; thence N89°00'40"W a distance of 1348.16 feet to a point on the center quarter line of Section 24, monumented by an aluminum cap PLS 14277; thence along said center quarter line N00°16'03"E a distance of 720.94 feet to the point of beginning.

Said tract contains 175.56 acres, more or less, and is subject to any and all easements, rights-of-way, reservations, and other encumbrances that have been legally acquired.

## PROPOSED ZONING:

B-2 (Consistent with nearby City of Sheridan zoning)

## ESTIMATED AREAS

1. Commercial Acreage: 24.6 acres
2. Commercial Square Footage: 650,000 square feet
3. Net Residential Acreage: 73.0 acres
4. Residential Density: 7 unit/acre

5. Number of Residential Lots: 150 lots
6. Park Land and Open Space: 52.0 acres
7. Acreage for Other Services (schools, etc.): 26.0 acres
8. Cost for Public Improvements:

The cost of public improvement for the property to be annexed is phased based upon pressure zone needs for the site. Phase 1 is planned to include the construction of 6 pads and 1,200 feet of road containing the needed private infrastructure. Phase 2 is anticipated to include the construction of 6 additional pads with 7,900 feet of additional primary and tertiary roads. Phase 3 would be the development of approximately 67 acres of urban residential areas.

## PHASE 1 INFRASTRUCTURE

The initial site development can occur with an extension of City of Sheridan (public) sanitary sewer and water along State Hwy 336 (Wyarno Road). This along with the private sanitary sewer and water along the proposed Phase 1 road will fully service the initial development.

a. Right of way grading estimated (including pads): $2,311,287
b. Sanitary Sewer (Onsite): $202,044
c. Sanitary Sewer (Offsite): $437,764
d. Water Lines (Onsite): $233,919
e. Water Lines (Offsite): $292,399
f. Storm Drain: $123,600
g. Curb/Gutter/Sidewalks: $238,200
h. Paving: $494,444

## PHASE 2 INFRASTRUCTURE

Phase 2 site development will require the construction of public infrastructure aptly named the Northeast Water and Sewer Extension contemplated by the City of Sheridan for over the last 10 years. This extension would provide water service and sewer service to the annexation area. The water extension would service the 4040-pressure zone required for fire flows in the higher elevations of the site. Three sewer sheds are planned and would provide both gravity flow and force main service to the anticipated sewer sheds. Further internal private development will also be required.

The extension of water service to the Northeast area of Sheridan is presented in two previous studies conducted by DOWL. The Northeast Sheridan Infrastructure Project, completed in August of 2014 (Appendix A), and the WWDC Level 1 Study, completed in June of 2019 (Appendix B). The water extension consists of two segments: the extension of the 16-inch line on Skeels St, north to Kittering, from Kittering east across I-90, and looping to the 16-inch main in East Ridge Road. The 2014 report estimated the water line extension at $1,256,000 and the 2019 report estimated the extension at $1,796,316, the 2023 inflation adjusted cost "Water Lines (Offsite)" is $2,134,995. In January of 2023, the Wyoming Water Development Commission (WWDC) awarded the City of Sheridan a grant (Appendix C) for $213,060 with an expected 33% match by the City of $104,940 for a total $318,000 related to the design, bidding documents, access permits, easements, and title opinion for the extension. The basis of the funding recommendation by WWDC is "the transmission pipeline extension is a critical next step need of the Sheridan combined water supply system." The 2023 estimated construction cost in the recommendation by WWDC is $2,355,000.

The 2014 DOWL report describes the proposed sewer main extension broken into 2 phases. The first phase provides gravity flow connecting to the sanitary sewer system on 14$^{th}$ street. The secondary phase connects a 4-inch and 6-inch force main to the Phase 1 sewer and will require a lift station. The annexed property will require both phases described for full development. The 2014 cost estimate for Phase 1 and Phase 2 in the 2014 report is $2,119,800. The 2023 inflation adjusted price "Sanitary Sewer (Offsite)" is provided below. The Phase 2 primary road is approximately 4,500 feet in length.

a. Right of way grading estimated (including pads): $5,844,408
b. Sanitary Sewer (Onsite): $809,370
c. Sanitary Sewer (Offsite): $2,711,147
d. Water Lines (Onsite): $595,144
e. Water Lines (Offsite): $2,355,000
f. Storm Drain: $373,200
g. Curb/Gutter/Sidewalks: $893,250
h. Paving: $1,854,200

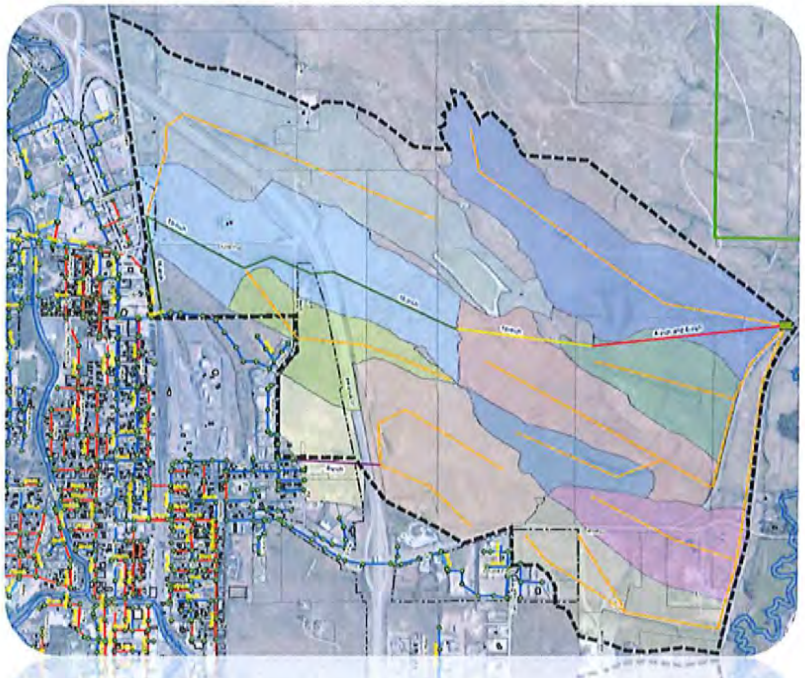
This includes private and public infrastructure needed for any future developments and will be permitted and built-in accordance with City requirements.

# ATTACHMENT A

DOWL Northeast Sheridan Infrastructure Project

# NORTHEAST SHERIDAN INFRASTRUCTURE PROJECT

AUGUST 2014



PREPARED FOR:

CITY OF SHERIDAN
55 GRINNELL PLAZA
SHERIDAN, WY 82801

Professional Engineer (Civil)
JEFFREY ROSENLUND
10,098
Date 7 AUGUST 2014
WYOMING

PREPARED BY:

DOWL HKM
16 W. 8TH STREET
P.O. BOX 7010
SHERIDAN, WY 82801
PH. 307.672.9006
FAX. 307.672.5214

# Table of Contents

1.0 Introduction ..... 1
1.1 Overview ..... 1
1.2 Study Area ..... 1
1.3 Previous Studies ..... 1
2.0 Sanitary Sewer System ..... 1
2.1 Existing Sanitary Sewer ..... 1
2.2 Design Criteria ..... 3
2.3 Modeling and Routing Options ..... 4
2.4 Cost Estimates ..... 6
3.0 Water System ..... 8
3.1 Existing Water System ..... 8
3.2 Design Criteria ..... 8
3.3 Water System Hydraulics ..... 11
3.4 Cost Estimates ..... 13
4.0 Recommendations ..... 15

# Figures

Figure 1 Study Area ..... 2
Figure 2 Sanitary Sewer Options ..... 5
Figure 3 Water Main Options ..... 10
Figure 4 Recommended Options ..... 16

# Tables

Table 1. – Design Criteria ..... 3
Table 2. – Light Industrial Users in Sheridan ..... 4
Table 3. – Sanitary Sewer System Loadings ..... 4
Table 4. – Cost Estimate for Phase 1 ..... 7
Table 5. – Cost Estimate for Phase 2 ..... 7
Table 6. – Cost Estimate for Phase 3 ..... 8
Table 7. – Water System Design Criteria ..... 8
Table 8. – Water Demand Based on Sewershed Area ..... 9

Table 9. – 16-inch Loop from Skeels Street to Eastridge Rd at Fifth Street ..... 11
Table 10. – 24-inch Loop from Skeels Street to Eastridge Rd at Fifth Street ..... 11
Table 11. – 16-inch East-West Cross Valley Line ..... 12
Table 12. – 16-inch East-West Cross Valley Line with a 24-inch Loop from Skeels Street to Eastridge Rd at Fifth Street ..... 12
Table 13. – Pressures at the Available Fire Flow Shown ..... 12
Table 14. – 16" Water Main Skeels to Eastridge @ 5th Street ..... 13
Table 15. – 24" Water Main Skeels to Eastridge @ 5th Street ..... 14
Table 16. – 16" Water Main East-West Cross Valley Line ..... 14
Table 17. – 16"/24" Water Main East-West Cross Valley Line ..... 15

# Appendices

Appendix A. Sewershed Discussion

Appendix B. Lift Station Discussion

# 1.0 Introduction

## 1.1 Overview

Over the past few years, the City of Sheridan has evaluated areas around the City with respect to their ability to accommodate growth. Some of these areas include the Little Goose Valley south of Sheridan, the Big Goose Valley west of Sheridan, the northwest area of Sheridan west of the VA, and the Wrench Ranch area north of Sheridan.

This report presents an analysis of an extension of the City of Sheridan water and sanitary sewer systems to the area north of 5th Street and east of I-90. The purpose of this study is to evaluate the ability of the City of Sheridan's water and sanitary sewer systems to accommodate development of this area, and to make preliminary recommendations on the core facilities needed to serve this area.

## 1.2 Study Area

A study area was developed through discussions with City staff and was formed based on service area limits and topography as shown in Figure 1. The study area is approximately 1,653 acres with potential for light industrial zoning. For demand projections, the total acreage was reduced to 1,124 acres by eliminating higher elevations above the water pressure zone, eliminating the reservoir, a 20% reduction for roads, and a 15% reduction for open space as required by the City of Sheridan for commercial PUD areas.

## 1.3 Previous Studies

The following studies have been previously completed and are used as references for this study:

1. *City of Sheridan Wastewater Collection System Assessment*. December 2008. DOWL HKM. Reviewed the existing sanitary sewer collection system, identified future impacts to the system from growth, and recommended solutions for rehabilitation and expansion of the system.
2. *City of Buffalo – Sheridan Area Water System – Lake DeSmet Level I Study*. June 2008. HKM Engineering. A study of complex water supply issues in Sheridan and Johnson Counties. This study reviewed the existing systems in Sheridan and Buffalo, identified future impacts to the system from growth, and recommended solutions for rehabilitation of existing lines and expansion of the City water system.

# 2.0 Sanitary Sewer System

## 2.1 Existing Sanitary Sewer

The new sanitary sewer interceptors that will serve the study area will connect to the existing system at the manhole located at the crossing of the railroad at 14th Street (installed for Poplar Grove Subdivision) with an additional interceptor connecting to the existing system at the manhole located at 8th Street and Joe Street.

MARION & DIXIE FISHER

JOYCE PELESKY

MALCOLM AND REBA TRAYLOR

FRANK AND RUBY MEDIATE

STELLA BARKER AND MARY HUTTON

WAYNE AND JOAN KIRBY

STEVEN AND NORA CAIN

STELLA BARKER

STUDY AREA
M-1
1653 ACRES

DONALD AND KATHRYN BUTLER

PRAIRIE HILLS, LLC

WYDOT

EAST SIDE INDUSTRIAL PARK

GEORGE AND SUSAN FLETCHER

CHARLES AND LORETTA HOLLOWAY

FLETCHER CONSTRUCTION COMPANY

Interstate 90

PRAIRIE DOG CREEK

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend
- Study Area
- Sewer manholes

Water Lines
- Water Lines
- Sewer pipelines
- WaterServiceBoundary
- City Limits
- Parcels

| No. | Revision | By | Date |
|---|---|---|---|
| | | | |

CITY OF SHERIDAN
EAST 5th STREET SANITARY SEWER

STUDY AREA

N
W E
S

1 in = 1,200 ft

DOWL HKM
16 W. 8th St.
P.O. Box 7010
Sheridan, WY 82801
307-672-9006
307-672-5214 (fax)
dowlhkm.com

Sheet No.
FIGURE
1

The 16-inch sewer crossing the railroad at 14th Street flows into a 30-inch interceptor. The full flow capacity of both interceptors is around 5000 gpm. The current estimated peak flow through the 30-inch interceptor is around 1,400 gpm, leaving 3,600 gpm capacity remaining. This is sufficient capacity to serve 21,457 people, based on City design standards. The committed flow (from Poplar Grove subdivision) through the 16-inch interceptor is 228 gpm, leaving greater than 4000 gpm capacity remaining. Therefore, both of these interceptors have more capacity remaining than would be needed to serve the study area.

The manhole on 8th Street and Joe Street connects to an 8-inch line which flows into the 30-inch interceptor on Crook Street. The capacity of this flatter 8-inch line is around 300 gpm and appears to have the capacity to develop the sewersheds draining to this point. Flow data from the City is needed to verify the existing flow through this part of the system.

## 2.2 Design Criteria

Table 1 represents the design criteria used for estimating the sewage flows in this study. These criteria come from the City of Sheridan 2008 Design Standards with the exception of the peaking factor for average day to peak hour and the person equivalents. The following method is used to calculate the peaking factor for the average day to peak hour:

$$\frac{Q_{peak}}{Q_{average}} = \frac{18+\sqrt{P}}{4+\sqrt{P}}$$ Where P = Population in thousands

This equation is intended to cover normal infiltration and may be used for a population range of 100 to 100,000 (*Wastewater Collection System Modeling and Design, First Edition*, Haestad Methods, 2004).

In analyzing the water usage records from various light industrial users in Sheridan (see Table 2) during the higher usage month of August 2013, we conclude that 6 people per acre is a reasonable person equivalent to use for the northeast Sheridan area, rather than from Sheridan's design standards. Using a population of 6,744 people (based on 6 people per acre) in the equation above gives an average day to peak hour peaking factor of 3.12.

Table 1. – Sewer Design Criteria

| | |
|---|---|
| ***Person Equivalents (persons/acre)*** | |
| Light Industrial | 6 |
| ***Peaking Factors*** | |
| Peak Day/Ave. Day | 2.43 |
| Peak Hour/Ave. Day (based on population of 6,744) | 3.12 |
| ***Other Design Criteria*** | |
| Average Day Flow (gpcd) | 100 |
| Persons per Lot or Unit | 2.21 |

Table 2. – Light Industrial Users in Sheridan

| User | Lot Size (acres) | Water Usage (gallons) | Person Equivalent (persons/acre) |
|---|---|---|---|
| Ptolemy Data Systems | 2.36 | 94,966 | 6.71 |
| Sheridan Commercial Park | 25.05 | 114,600 | 0.76 |
| Vacutech | 5.00 | 12,716 | 0.42 |
| Craftco Metal Services | 2.46 | 68,816 | 4.66 |

Table 3 shows the loading from each interceptor based on person equivalents for light industrial zoning as shown in Table 1.

Table 3. – Sanitary Sewer System Loadings

| Phase No. | Area (Acres) | Person Equivalents (per acre) | Total # of People | Average Day (GPM) | Peak Day (GPM) | Peak Hour (GPM) |
|---|---|---|---|---|---|---|
| 1a | 427 | 6 | 2562 | 178 | 432 | 647 |
| 1b | 541 | 6 | 3248 | 226 | 548 | 803 |
| 2 | 156 | 6 | 934 | 65 | 158 | 255 |
| TOTAL | 1124 | | 6,744 | 468 | 1138 | 1705 |

## 2.3 Modeling and Routing Options

The study area was broken down into service areas or sewersheds in order to analyze the system in manageable sections. The sewershed boundaries follow topography and flow into one common sewer at the mouth of the sewershed. They were developed to maximize gravity flow within the study area and determine where the main interceptors should be placed. To achieve gravity flow through much of the study area, the lateral sewer mains through the sewersheds would flow to a lift station placed in the northeast corner of the study area as shown in Figure 2. This lift station would then pump the sewage through a 4-inch force main to the main interceptor, and then gravity flow to the connecting point on 14$^{th}$ Street. The sewersheds are discussed in more detail in Appendix A.

Modeling was performed to determine the proper sizes for each interceptor. The line sizing is based on the design criteria for light industrial use as shown in Table 1. The sewer main interceptors and line sizes are shown in Figure 2.

| No. | Revision | By | Date |
|---|---|---|---|
| | | | |

CITY OF SHERIDAN
EAST 5th STREET SANITARY SEWER

SANITARY SEWER OPTIONS

N
W E
S

1 in = 1,200 ft

**Legend**

- PS Lift Station
- Phase 2 Force Main
- Phase 1 Interceptor
- Phase 2 Interceptor
- Phase 3 Interceptor
- Lateral Mains
- Expansion Projects
- Sewer manholes
- Sewer pipelines
- WaterServiceBoundary
- **City Limits**
- Parcels

**Sewershed_proposed**

**Phase**

- 1
- 2
- 3

DOWL HKM
16 W. 8th St.
PO Box 7010
Sheridan, WY 82801
307-672-9006
307-672-5214 (fax)
dowlhkm.com

Sheet No.
**FIGURE 2**

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

The main interceptor proposed to connect to the existing sanitary sewer system on 14th Street has been broken into two phases, phase 1 and 2. The majority of this interceptor flows by gravity and is labeled phase 1. This interceptor has been sized to accommodate loadings that will eventually be pumped from the lift station. Phase 2 is the lift station with the 4-inch and 6-inch force mains which would be built when the land is developed in the areas requiring a lift station. The main interceptor that will connect to the existing sanitary sewer system at 8th Street and Joe Street is shown as phase 3 on Figure 2 and serves a separate sewershed in the southwest corner of the study area.

As mentioned above, phase 2 includes the installation of a lift station. Sizing of this lift station is very important as both sizing the lift station for the initial loadings and planning for the same lift station to eventually serve the future build out of the service areas must be considered. These concerns include the size of the wet well, size of the pumps, and the size of the force main. These items will need to be looked at in more detail when designing the lift station. Some initial thoughts on how to address these concerns are as follows:

- The wet well should be sized for the future loads. The wet well can be sized for pump run times and then operated at a lower water level initially. (Reduce the ultimate volume between pump on and pump off.)
- The force main should be laid with a 4-inch and 6-inch pipe in the same trench with the 4-inch pipe used initially and then switch to the 6-inch force main in the future. The key here is to maintain proper velocities.
- The pumps initially should be sized for the 4-inch force main.
- In the future, the pumps can be changed out to larger pumps to be used with the 6-inch force main.

The lift station is discussed in more detail in Appendix B.

## 2.4 Cost Estimates

Tables 4, 5, and 6 show the cost estimates for the three phases discussed in Section 2.3. These cost estimates anticipate that easements will be granted at no cost due to the value of infrastructure received, so the cost shown for acquisition of easements is for coordination and easement document preparation.

Table 4. – Cost Estimate for Phase 1

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $80,000 |
| Legal & Admin | | $15,000 |
| Acquisition of Easements | | $25,000 |
| Cost of Components | | |
| Sewer Main (8340' of 15" at $52/foot)[1] | $433,680 | |
| Manholes (22 at $4500) | $99,000 | |
| Surface Restoration (8340 LF @ $5/LF)[2] | $41,700 | |
| Boring under I-90 | $140,000 | |
| Utility Conflicts & Misc. | $15,000 | |
| Bonds, Insurance, Mobilization | $73,000 | |
| Construction Sub-Total | | $802,380 |
| Engineering Services During Construction (10%) | | $80,000 |
| Sub-Total | | $1,002,380 |
| Contingency (Sub-Total x 15%) | | $150,000 |
| **Estimate Project Total Cost** | | **$1,152,380** |

1 Includes pipe materials, installation, bedding, and backfill.

2 Includes topsoil stripping, replacement, and seeding.

Table 5. – Cost Estimate for Phase 2

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $68,000 |
| Legal & Admin | | $10,000 |
| Acquisition of Easements | | $20,000 |
| Cost of Components | | |
| Force Main (3700' of 4" at $35/foot)[1] | $129,500 | |
| Force Main (3700' of 6" at $40/foot)[1] | $148,000 | |
| Sewer Main (2560' of 15" at $52/foot)[1] | $133,120 | |
| Manholes (7 at $4500) | $31,500 | |
| Lift Station | $125,000 | |
| Surface Restoration (6260 LF @ $5/LF)[2] | $31,300 | |
| Utility Conflicts & Misc. | $15,000 | |
| Bonds, Insurance, Mobilization | $62,000 | |
| Construction Sub-Total | | $675,420 |
| Engineering Services During Construction (10%) | | $68,000 |
| Sub-Total | | $841,420 |
| Contingency (Sub-Total x 15%) | | $126,000 |
| **Estimate Project Total Cost** | | **$967,420** |

1 Includes pipe materials, installation, bedding, and backfill.

2 Includes topsoil stripping, replacement, and seeding.

Table 6. – Cost Estimate for Phase 3

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $28,000 |
| Legal & Admin | | $10,000 |
| Acquisition of Easements | | $20,000 |
| Cost of Components | | |
| Sewer Main (1660' of 8" at $42/foot)[1] | $69,720 | |
| Manholes (5 at $4500) | $22,500 | |
| Surface Restoration (1660 LF @ $5/LF)[2] | $8,300 | |
| Boring under I-90 | $140,000 | |
| Utility Conflicts & Misc. | $10,000 | |
| Bonds, Insurance, Mobilization | $25,000 | |
| Construction Sub-Total | | $275,520 |
| Engineering Services During Construction (10%) | | $28,000 |
| Sub-Total | | $361,520 |
| Contingency (Sub-Total x 10%) | | $54,000 |
| **Estimate Project Total Cost** | | **$415,520** |

1 Includes pipe materials, installation, bedding, and backfill.
2 Includes topsoil stripping, replacement, and seeding.

# 3.0 Water System

## 3.1 Existing Water System

Two options were analyzed for providing water from the existing system. Both options would have a looped waterline from the 16-inch waterline on Skeels Street to the 16-inch waterline at Eastridge Road and Fifth Street. The second option includes an East-West Cross Valley connection line from a 12-inch waterline at 11th Street and Highland to the connection point at Skeels Street. This cross-valley line has been identified as a future improvement in previous studies. The source of water for both options is in the 4040 pressure zone. This new service area is primarily in the 4040 zone, so that is the only zone included in this discussion. These options are shown in Figure 3.

## 3.2 Design Criteria

Table 7 presents the design criteria used in estimating demand for these waterline options.

Table 7. – Water System Design Criteria

| | |
|---|---|
| ***Peaking Factors*** | |
| Peak Day/Ave. Day | 2.65 |
| Peak Hour/Ave. Day | 4.2 |
| ***Average Day Demand (gpcd) for Future Population*** | |
| Per Capita | 200 |

| | |
|---|---|
| Residential - Single Family (gpd/acre) | 1320 |
| Commercial (gpd/acre) | 3600 |
| Heavy Industrial (gpd/acre) | 3000 |
| Light Industrial (gpd/acre) | 2000 |
| Average Use (gpd/acre) | 424 |
| ***Other Design Criteria*** | |
| Persons per Lot or Unit | 2.25 |
| Industrial Fire Flow (gpm) | 3500 |

The future water demand is based on the availability of water to the study area through a 16-inch looped water main from Skeels Street to Eastridge Road at 5th Street. The amount of water available translates to 2.12 people/acre. Water demand was allocated by sewershed area using this number of people per acre as shown in Table 8.

Table 8. – Water Demand Based on Sewershed Area

| Sewershed No. | Available Quantity (Acres) | Average Use (gpd/acre) | Average Day (gpm) | Peak Day (gpm) | Peak Hour (gpm) |
|---|---|---|---|---|---|
| 1 | 88 | 424 | 26 | 68 | 108 |
| 2 | 69 | 424 | 20 | 54 | 85 |
| 3 | 40 | 424 | 12 | 31 | 50 |
| 4 | 107 | 424 | 32 | 84 | 133 |
| 5 | 65 | 424 | 19 | 51 | 81 |
| 6 | 172 | 424 | 51 | 134 | 213 |
| 7 | 203 | 424 | 60 | 159 | 251 |
| 8 | 41 | 424 | 12 | 32 | 51 |
| 9 | 114 | 424 | 34 | 89 | 141 |
| 10 | 162 | 424 | 48 | 126 | 200 |
| 11 | 62 | 424 | 18 | 48 | 77 |
| Totals | 1124 | | 331 | 877 | 1390 |

| No. | Revision | By | Date |
|---|---|---|---|
| | | | |

CITY OF SHERIDAN
EAST 5th STREET SANITARY SEWER

WATER MAIN OPTIONS

N
W E
S

**Legend**

- East-West Cross Valley Line
- Skeels to Eastridge Rd at 5th Street
- valves
- **Hydrant**
- **Flushing Hydrant**

**sewershed_**

- 4160 Zone

**Water Lines**

- **Unknown Material**
- **CIP**
- **COPPER**
- **Concrete**
- **DIP**
- **Galvanized Iron**
- **PVC**
- **Steel**
- Expansion Projects
- WaterServiceBoundary
- **City Limits**
- Parcels

DOWL HKM
16 W. 8th St.
P.O. Box 1710
Sheridan, WY 82801
307-672-9006
307-672-5214 (fax)
dowlhkm.com

Sheet No.
**FIGURE 3**

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

## 3.3 Water System Hydraulics

The elevation of the ground within the study area varies from approximately 3720 feet to 3940 feet. This results in static pressures of approximately 43 psi to 138 psi when served by the 4040 zone.

Where pressures exceed 80 psi, individual or lateral PRVs should be used. If meter pits are used, a small PRV can be laid in series with the meter.

Peak day demand, peak hour demand, and fire flows were all modeled for the waterline loop from Skeels Street to Eastridge Rd at Fifth Street. Model runs compared this option using a 16-inch pipe and a 24-inch pipe. For the East-West Cross Valley waterline, a 16-inch pipe and a combination of 16-inch pipe to Skeels Street with a 24-inch pipe connecting Skeels Street to Eastridge Rd at Fifth Street was used. The resulting pressures throughout the system from these four scenarios are shown in Tables 9 through 12.

Table 9. – 16-inch Loop from Skeels Street to Eastridge Rd at Fifth Street

| | Existing System | | Existing System with Study Area | |
|---|---|---|---|---|
| **Location** | **Peak Day** | **Peak Hour** | **Peak Day** | **Peak Hour** |
| | **Pressures (PSI)** | | | |
| Eastridge Rd & 5th Street (El. 3926) | 46.4 | 42.1 | 43.0 | 39.2 |
| Skeels Street (El. 3806) | 98.4 | 94.3 | 95.1 | 90.9 |
| 5th Street & Sheridan Ave (El. 3736) | 128.7 | 124.7 | 126.3 | 122.3 |
| North of 5th & East of I-90 (El. 3930) | - | - | 41.1 | 36.8 |

Table 10. – 24-inch Loop from Skeels Street to Eastridge Rd at Fifth Street

| | Existing System | | Existing System with Study Area | |
|---|---|---|---|---|
| **Location** | **Peak Day** | **Peak Hour** | **Peak Day** | **Peak Hour** |
| | **Pressures (PSI)** | | | |
| Eastridge Rd & 5th Street (El. 3926) | 46.4 | 42.1 | 43.1 | 39.2 |
| Skeels Street (El. 3806) | 98.4 | 94.3 | 95.0 | 91.0 |
| 5th Street & Sheridan Ave (El. 3736) | 128.7 | 124.7 | 126.3 | 122.3 |
| North of 5th & East of I-90 (El. 3930) | - | - | 41.3 | 37.3 |

Table 11. – 16-inch East-West Cross Valley Line

| | Existing System | | Existing System with Study Area | |
|---|---|---|---|---|
| **Location** | **Peak Day** | **Peak Hour** | **Peak Day** | **Peak Hour** |
| | | **Pressures (PSI)** | | |
| Eastridge Rd & 5th Street (El. 3926) | 46.4 | 42.1 | 43.2 | 39.3 |
| Skeels Street (El. 3806) | 98.4 | 94.3 | 95.3 | 91.0 |
| 5th Street & Sheridan Ave (El. 3736) | 128.7 | 124.7 | 126.4 | 122.3 |
| 11th & Highland (El. 3835) | 86.1 | 80.8 | 84.9 | 79.4 |
| North of 5th & East of I-90 (El. 3930) | - | - | 41.4 | 36.9 |

Table 12. – 16-inch East-West Cross Valley Line with a 24-inch Loop from Skeels Street to Eastridge Rd at Fifth Street

| | Existing System | | Existing System with Study Area | |
|---|---|---|---|---|
| **Location** | **Peak Day** | **Peak Hour** | **Peak Day** | **Peak Hour** |
| | | **Pressures (PSI)** | | |
| Eastridge Rd & 5th Street (El. 3926) | 46.4 | 42.1 | 44.3 | 39.5 |
| Skeels Street (El. 3806) | 98.4 | 94.3 | 96.3 | 91.4 |
| 5th Street & Sheridan Ave (El. 3736) | 128.7 | 124.7 | 127.0 | 122.5 |
| 11th & Highland (El. 3835) | 86.1 | 80.8 | 84.3 | 79.0 |
| North of 5th & East of I-90 (El. 3930) | - | - | 42.6 | 37.7 |

The tables above show the existing system can supply the domestic demand for this future growth area.

Fire Flows were modeled under a peak day demand condition. The fire flow for each scenario at the highest elevation of 3930 feet are shown in Table 13. Fire flow scenarios are modeled using a minimum 20 psi residual pressure in the system.

Table 13. –Available Fire Flows for various options

| **Improvement Option** | **Fire Flow Available (gpm)** |
|---|---|
| 16" from Eastridge Road (no loop) | 2509 |
| 16" Skeels to Eastridge Rd at 5th Street | 3508 |
| 24" Skeels to Eastridge Rd at 5th Street | 4377 |
| 16" East-West Cross Valley Line | 3621 |
| 16"/24" East-West Cross Valley Line | 5913 |

As shown in Table 11, if the waterline size is increased to 24-inch from Skeels to Eastridge Rd at 5th Street, there is 877 gpm more water available, which would accommodate a greater population. The same occurs for the 16-inch East-West Cross Valley Line and the 16-inch/24-inch East-West Cross Valley Line with 121 gpm and 2413 gpm, respectively.

Another scenario that would provide more water for domestic demand is if the required fire flow amount was reduced. The current design criteria uses a 3500 gpm fire flow, which is a very high fire flow demand. The international fire code (IFC) allows reductions in the fire flow amount required for sprinkled buildings, building size, proximity to hydrants, and construction type. Therefore, it may be possible to reduce the fire flow requirement to 2500 gpm.

## 3.4 Cost Estimates

The cost estimate breakdowns for the four water main options analyzed are shown in Tables 14 through 17.

Table 14. – 16" Water Main Skeels to Eastridge @ 5th Street

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $87,000 |
| Legal & Admin | | $10,000 |
| Acquisition of Easements | | $40,000 |
| Cost of Components | | |
| Water Lines (8000' of 16" at $86/foot) | $688,000 | |
| Surfacing Restoration (8000' @ $5/LF) | $40,000 | |
| Boring under I-90 | $140,000 | |
| Construction Sub-Total | | $868,000 |
| Engineering Services During Construction (10%) | | $87,000 |
| Sub-Total | | $1,092,000 |
| Contingency (Sub-Total x 15%) | | $164,000 |
| **Estimate Project Total Cost** | | **$1,256,000** |

Table 15. – 24” Water Main Skeels to Eastridge @ 5th Street

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $94,000 |
| Legal & Admin | | $10,000 |
| Acquisition of Easements | | $40,000 |
| Cost of Components | | |
| Water Lines (8000' of 24" at $95/foot) | $760,000 | |
| Surfacing Restoration (8000' @ $5/LF) | $40,000 | |
| Boring under I-90 | $140,000 | |
| Construction Sub-Total | | $940,000 |
| Engineering Services During Construction (10%) | | $94,000 |
| Sub-Total | | $1,178,000 |
| Contingency (Sub-Total x 15%) | | $177,000 |
| **Estimate Project Total Cost** | | **$1,355,000** |

Table 16. – 16” Water Main East-West Cross Valley Line

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $239,000 |
| Permitting & Mitigation | | $50,000 |
| Legal & Admin | | $30,000 |
| Acquisition of Easements & Right-of-Way | | $150,000 |
| Cost of Components | | |
| Water Lines (18,000' of 16" at $86/foot) | $1,548,000 | |
| Surfacing Allowance* | $500,000 | |
| Miscellaneous | $200,000 | |
| Boring under I-90 | $140,000 | |
| Construction Sub-Total | | $2,388,000 |
| Engineering Services During Construction (10%) | | $239,000 |
| Sub-Total | | $3,096,000 |
| Contingency (Sub-Total x 15%) | | $464,000 |
| **Estimate Project Total Cost** | | **$3,560,000** |

*Surfracing allowance not sufficient for a water line only project. Assume this work will be done in conjunction with street improvements. A more detailed project specific cost estimate is needed as the project is designed.

Table 17. – 16”/24” Water Main East-West Cross Valley Line

| | | |
|---|---|---|
| Design, Geotech, Final Planning, Plans & Specs, Bidding (10%) | | $246,000 |
| Permitting and Mitigation | | $50,000 |
| Legal & Admin | | $30,000 |
| Acquisition of Easements & Right-of-Way | | $150,000 |
| Cost of Components | | |
| Water Lines (10,000' of 16" at $86/foot) | $860,000 | |
| Water Lines (8000' of 24" at $95/foot) | $760,000 | |
| Surfacing Allowance* | $500,000 | |
| Miscellaneous | $200,000 | |
| Boring under I-90 | $140,000 | |
| Construction Sub-Total | | $2,460,000 |
| Engineering Services During Construction (10%) | | $246,000 |
| Sub-Total | | $3,182,000 |
| Contingency (Sub-Total x 15%) | | $477,000 |
| **Estimate Project Total Cost** | | **$3,659,000** |

*Surfracing allowance not sufficient for a water line only project. Assume this work will be done in conjunction with street improvements. A more detailed project specific cost estimate is needed as the project is designed.

## 4.0 Recommendations

The interceptors for the sanitary sewer design are presented in the logical areas for anticipated growth in the study area. The placement of these interceptors will depend on development in the area. Ideally, Phase 1 and 3 would be built first, as these two interceptors will flow by gravity. Phase 1 must be built in order for Phase 2 to be built. The recommended sanitary sewer options and phases are shown in Figure 4.

The recommended water main size is the 24-inch pipe connecting from Skeels to Eastridge Rd at 5$^{th}$ Street as shown in Figure 4. The 24-inch pipeline can provide flows to accommodate 4,754 people whereas the 16-inch can only provide flows to accommodate a 2,390 people equivalent. Since costs are similar, it may serve the City best to install the 24-inch pipeline. In the future, the City may consider building a tank to serve the study area. A tank would provide an additional 3500 gpm as the tank would store the water needed for fire flows. The additional 3500 gpm would serve an additional 6,000 people.

The East-West Valley Cross Line is not recommended at this time. Although the 16-inch/24-inch line does immediately provide flows to serve more people, the City may want to consider building a tank in the future to provide water for fire flows. Since the East-West Cross Valley Lines would be significantly more expensive, it is not considered the best option for the City at this time. If this area should develop and additional water supply is needed in this area, then a tank and/or the East-West Cross Valley lines could be built.

| No. | Revision | By | Date |
|---|---|---|---|
| | | | |

**CITY OF SHERIDAN**
**EAST 5th STREET SANITARY SEWER**

**RECOMMENDED OPTIONS**

**Legend**

- PS Lift Station

**Waterline**

- Skeels St to Eastridge Rd @ 5th St

**Sewer Flows**

- Phase 1 Interceptor
- Phase 2 Force Main
- Phase 2 Interceptor
- Phase 3 Interceptor
- Expansion Projects

**Water Lines**

- Unknown Material
- CIP
- COPPER
- Concrete
- DIP
- Galvanized Iron
- PVC
- Steel

**Sewer Pipes**

- C
- Concrete
- DI
- HDPE
- PVC
- UNKNOWN
- VC
- Vitrified Clay Pipe
- WaterServiceBoundary
- City Limits
- Parcels

N
W E
S

1 in = 1,200 ft


DOWL HKM
16 W. 6th St.
P.O. Box 7010
Sheridan, WY 82801
307-672-9006
307-672-5214 (fax)
dowlhkm.com


Sheet No.
**FIGURE 4**

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

DOWL HKM

16 WEST 8TH STREET
PO BOX 7010
SHERIDAN, WY 82801

# APPENDIX A

## Sewershed Discussion

**APPENDIX A**

**Northeast Sheridan Infrastructure Project**
**Sewershed Development and Analysis**

## Introduction

The study area was broken down into eleven service areas or sewersheds as shown in Figure A1. Breaking the system into sewersheds allows the system to be analyzed in manageable sections. The sewershed boundaries follow topography and flow into one common sewer at the mouth of the sewershed. Six of the sewersheds flow to a lift station (in the Prairie Dog Creek drainage) and are then pumped into a gravity sewer, while the other five sewersheds are able to flow by gravity to the Wastewater Treatment Plant.

## Sanitary Sewer Modeling

Modeling was performed to determine the proper line sizes for each sewershed. The loadings for each sewershed are shown in Table A1 and are based on the design criteria shown in Table 1 in the report.

Table A1. – Sanitary Sewer Loadings by Sewershed

| Sewer Shed No. | Quantity (Acres) | Person Equivalents (per acre) | Total # of People | Average Day (GPM) | Peak Day (GPM) | Peak Hour (GPM) |
|---|---|---|---|---|---|---|
| 1 | 88 | 6 | 526 | 37 | 89 | 145 |
| 2 | 69 | 6 | 412 | 29 | 70 | 115 |
| 3 | 40 | 6 | 241 | 17 | 41 | 69 |
| 4 | 107 | 6 | 645 | 45 | 109 | 175 |
| 5 | 65 | 6 | 392 | 27 | 66 | 110 |
| 6 | 172 | 6 | 1032 | 72 | 174 | 272 |
| 7 | 203 | 6 | 1220 | 85 | 206 | 317 |
| 8 | 41 | 6 | 249 | 17 | 42 | 71 |
| 9 | 114 | 6 | 685 | 48 | 116 | 186 |
| 10 | 162 | 6 | 971 | 67 | 164 | 257 |
| 11 | 62 | 6 | 371 | 26 | 63 | 104 |
| TOTAL | 1124 | | 6,744 | 468 | 1138 | 1820 |

The sewershed sewer main routing and line sizes are shown in Figure A2. Sewersheds one through six will flow by gravity through either 8-inch or 12-inch lines to a lift station which would be built during phase 2. The lift station would then pump the sewage through a 4-inch or 6-inch force main to the sewer main connection for sewershed 10 which would be built during phase 1, thus sewershed 10 sewer main has been sized to accommodate loadings from sewersheds one through six and sewershed 10. Sewersheds 7, 10, and 11 will flow by gravity to the connection point at 14$^{th}$ Street. Sewersheds 8 and 9

will flow by gravity through 8-inch lines to the connection point at 8th Street and Joe Street. The interceptor for sewersheds 8 and 9 will be built during phase 3.

Sewer Shed No. 7
Area = 299AC.
Population = 2990

Sewer Shed No. 10
Area = 238AC.
Population = 2380

Sewer Shed No. 6
Area = 253AC.
Population = 2530

Sewer Shed No. 11
Area = 91AC.
Population = 910

Sewer Shed No. 5
Area = 96AC.
Population = 960

Sewer Shed No. 4
Area = 158AC.
Population = 1580

Sewer Shed No. 8
Area = 61AC.
Population = 610

Sewer Shed No. 9
Area = 168AC.
Population = 1680

Sewer Shed No. 3
Area = 59AC.
Population = 590

Sewer Shed No. 2
Area = 101AC.
Population = 1010

Sewer Shed No. 1
Area = 129AC.
Population = 1290

**Legend**

- Sewer manholes
- Reservoir Removed
- 4160 Zone Removed
- Expansion Projects

**Sewer Pipes**

- C
- Concrete
- DI
- HDPE
- PVC
- UNKNOWN
- VC
- Vitrified Clay Pipe
- WaterServiceBoundary
- **City Limits**
- Parcels

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

| No. | Revision | By | Date |
|---|---|---|---|
| | | | |

CITY OF SHERIDAN
EAST 5th STREET SANITARY SEWER

SEWERSHEDS

N
W E
S

1 in = 1,200 ft

DOWL HKM
16 W. 6th St
P.O. Box 7010
Sheridan, WY 82801
307-672-9006
307-672-5214 (fax)
dowlhkm.com

Sheet No.
FIGURE A1

| No. | Revision | By | Date |
|---|---|---|---|
| | | | |

**CITY OF SHERIDAN**
**EAST 5th STREET SANITARY SEWER**

# SEWERSHEDS SEWER MAIN ROUTING AND LINE SIZES

N
W E
S

1 in = 1,200 ft

**Legend**

- PS Lift Station
- Phase 2 Force Main
- Phase 1 Interceptor
- Phase 2 Interceptor
- Phase 3 Interceptor
- Lateral Mains
- Expansion Projects
- Sewer manholes

**Sewer Pipes**

- C
- Concrete
- DI
- HDPE
- PVC
- UNKNOWN
- VC
- Vitrified Clay Pipe
- WaterServiceBoundary
- **City Limits**
- Parcels

DOWL HKM
16 W. 8th St
P.O. Box 2701
Sheridan, WY 82801
307-672-9006
307-672-5214 (fax)
dowlhkm.com

Sheet No.
**FIGURE A2**

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

# APPENDIX B

## Lift Station Discussion

**APPENDIX B**

**Northeast Sheridan Infrastructure Project**
**Lift Station**

## Introduction

A lift station will be required for the sanitary sewer system that drains toward the Prairie Dog Creek drainage. This lift station will be placed in the vicinity of the northeastern corner of the study area. Once development begins in sewersheds one through six, this lift station will need to be built. This lift station is phase 2 and will connect into the interceptor that will be built during phase 1.

There are many concerns with building this lift station to the proper size for initial loadings as well as future build out through sewersheds one through six. The following sections will layout the concerns and address solutions that will need to be taken into consideration during final design.

## Sizing the Wet Well

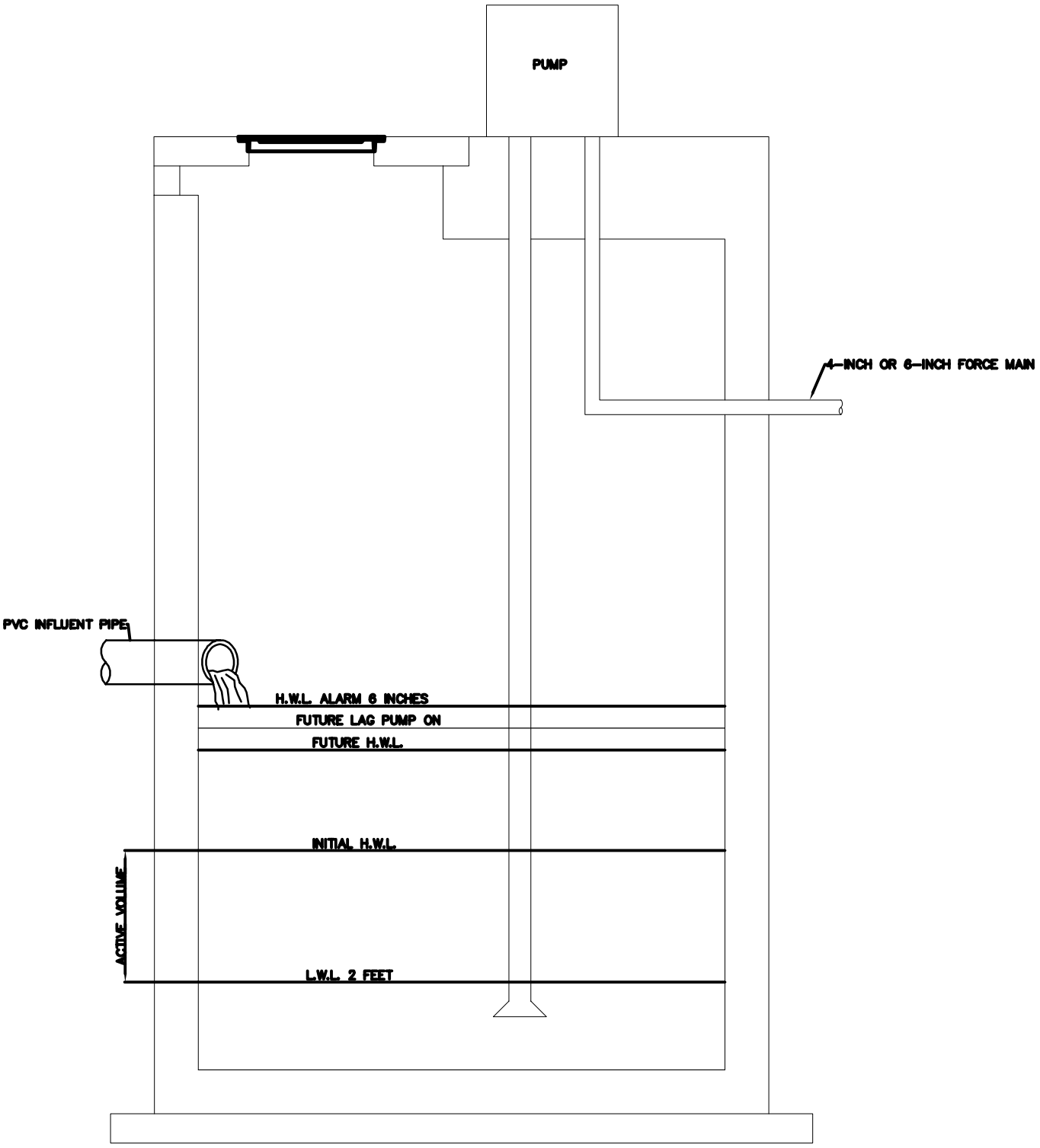
The wet well should be sized for future use. The wet well will be concrete and most likely be 8 feet in diameter, but should be looked at closely to size it properly for pump run times. To size for pump run times, initially the pumps will be set to turn on at a lower water level such as using 1.5 feet of active volume initially and 3 feet in the future. See Figure B1 for more detail.

## Sizing the Force Main

The force main is approximately 3700 feet long with a lift of about 170 feet. With such a long force main, there is concern with the quantity of sewage that would be held when the pumps are shut off. The vertical lift for this force main is also very high. For the force main, a 4-inch pipe and 6-inch pipe will be laid in the same trench. The 4-inch force main will be used initially to keep flows low and velocity high and then will be switched to the 6-inch pipe in the future.

## Sizing the Pumps

The force main is required to move the sewage at 2.5 fps thus the nominal flow rate for 4-inch pipe is 100 gpm and for 6-inch pipe is 250 gpm. With headloss, the total dynamic head (TDH) is about 200 feet. To size the pumps for this flow and TDH is going to be a challenge. The pump must be designed to initially meet the design conditions at the time the lift station is built. The pumps can then be changed out in the future to meet the conditions that will require a switch to a 250 gpm design flow and the 6-inch force main. This could be 20 years down the road when it is time to replace the pumps anyway. In sizing the pump, the pump will need to be able to carry the peak flow. The filling rate of the wet well at the average flow rate and the volume of the wet well between the pump start and pump stop, as well as the number of pumps starts per hour will need to be considered. The pump should have less than eight starts per hour and not have short pump run times. One pump will be needed with a second pump as a back-up. The pumps should be high head above ground self-priming pumps that can be placed in a single housing unit with isolation and check valves placed between each pump and the force main.




DOWL HKM
16 W. 8th Street
Sheridan, Wyoming 82801
307-672-9006
www.dowlhkm.com

# NORTHEAST SHERIDAN INFRASTRUCTURE PROJECT LIFT STATION

| | |
|---|---|
| PROJECT | 5024.26492.01 |
| DATE | 07/30/2014 |

FIGURE B1

Q:\24\26492 Water and Sewer infrastructure for NE Sheridan\50Design\MC14-Fig B1.dwg PLOT DATE 2014-7-30 09:03 SAVED DATE 2014-07-30 09:01 USER: jwagner

# ATTACHMENT B

DOWL WWDC Level I Study

*Table 8.9 – East-West Cross Valley Transmission Main Cost Estimate*

| | | | | |
|---|---|---|---|---|
| Preparation of Final Design, Specs, Bidding (10%) | $ | 198,280 | | |
| Permitting and Mitigation | $ | 10,000 | | |
| Legal Fees | $ | 10,000 | | |
| Acquisition of Access & Easements | $ | 90,000 | | |
| Pre-Construction Costs (Subtotal) | | | $ | 308,280 |
| Cost of Components: | | | | |
| Mobilization | | $100,000 | | |
| 14,600' of 16" Main @ $93/ft | | $1,357,800 | | |
| BNSF Railroad Bore (300' @$350/ft) | | $105,000 | | |
| Additional Restoration/crossings | | $250,000 | | |
| 4160 to 4040 PRV Station | | $120,000 | | |
| Connections | | $50,000 | | |
| ***Total Cost of Components*** | | **$1,982,800** | | |
| Construction Engineering Cost | $ | 198,280 | | |
| Components & Engineering Cost (Subtotal) | $ | 2,181,080 | | |
| Contingency (Subtotal 15%) | $ | 327,162 | | |
| Construction Cost Total | | | | **$2,508,242** |
| **Total Project Cost** | | | | $2,816,522 |

### 8.2.10 Northeast Transmission Main Project

The Northeast Transmission Main Project includes two primary segments:

- Extension from the end of the existing 16-inch line on Skeels, north to Kittering.
- An extension from this point east, across I-90 and then looping back into the 16-inch main on East Ridge Road to the south.

When the time comes for this main to be extended, the need may initially only be on Skeels, so the cost estimate below can be modified for the reduced project. Eventually, if growth occurs as is expected, the extension will be needed across I-90 and connecting to East Ridge Road and East 5th Street. There is higher ground in this potential service area, so this 4040 HGL main cannot serve this entire area. This matter is discussed in the Modeling section of 4.3.5. Also refer to the East-West Cross Valley Main presented in 8.2.9.

The extension on Skeels of the 4040 HGL main can serve the immediate area to Kittering adequately, and this extension will likely be needed prior to the other mains discussed in this section.

At the time one or more of these mains (or phases of a main) are needed, this matter should be reviewed again based on the size and elevations of the service area, updated overall system demands, and the entire preliminary design remodeled for HGLs, pipe sizes, connections, need for a PRV station, etc. This preliminary design needs to be summarized in a design report with a revised cost estimate for the specific project at that time. It is believed the work in this Level I is sufficient that once this project-specific PER is prepared, that the project can move into the WWDC Level III program with a revised cost estimate.

Figure 8.4 illustrates this project. The cost estimate is presented in Table 8.10.

***Table 8.10 – Northeast Transmission Main Extension***

| | | | | |
|---|---|---|---|---|
| Preparation of Final Design, Specs, Bidding (10%) | $ | 126,470 | | |
| Permitting and Mitigation | $ | 10,000 | | |
| Legal Fees | $ | 10,000 | | |
| Acquisition of Access & Easements | $ | 50,000 | | |
| Pre-Construction Costs (Subtotal) | | | $ | 196,470 |
| Cost of Components: | | | | |
| Mobilization | | $100,000 | | |
| 10,900' of 16" Main @ $83/ft | | $904,700 | | |
| I-90 (400' @$350/ft) | | $140,000 | | |
| Additional Restoration/crossings | | $100,000 | | |
| Connections | | $20,000 | | |
| ***Total Cost of Components*** | | **$1,264,700** | | |
| Construction Engineering Cost | $ | 126,470 | | |
| Components & Engineering Cost (Subtotal) | $ | 1,391,170 | | |
| Contingency (Subtotal 15%) | $ | 208,676 | | |
| Construction Cost Total | | | | **$1,599,846** |
| **Total Project Cost** | | | | $1,796,316 |

### 8.2.11 Woodland Park School Area Project

This project will create the next higher pressure zone above (southeast of) the new Woodland Park School area to increase the pressure in the higher ground in this location. This project will connect to water lines in and better serve the east end of Highview Road and Dee Drive to the south. The new pressure zone will be at 4160. Currently this area is in the 4040 zone. It is proposed to modify the Highway 87 (Big Horn wye) PRV station to provide 4160 water by gravity north up Highway 87 in the existing main, and then install PRV stations in the laterals coming off this line such as for the McNally and Woodland Hills subdivisions. A tank will be needed so fire flows and peak demands can be satisfied in this new service area. This project and its connection to Dee Drive will eliminate the need for the Dee Drive booster station. Eventually an extension should be run from this main and

# ATTACHMENT C

City of Sheridan WWDC Grant Application

# 2023 RECOMMENDATION-CONSTRUCTION PROJECTS

**Project Name:** Sheridan Northeast Transmission Main Extension 2023

**Program:** New Development

**Project Type:** Municipal

**County:** Sheridan

**Sponsor:** City of Sheridan

**WWDO Recommendation:** Level III

**Proposed Budget:** $213,060 (Pre-Construction Only)[1]

| | |
|---|---|
| **Current Recommendation:** | |
| WWDC Grant[2] (67%) | $ 213,060 |
| Other Funding Source[3] (33%) | $ 104,940 |
| Total | $ 318,000 |
| | |
| **Funding for Total Project:** | |
| WWDC Grant[2] | $ 1,577,850 |
| Other Funding Source[3] | $ 777,150 |
| Total | $ 2,355,000 |

[1] Pre-Construction costs consist of: Design, Bidding Documents, Access Permits, Easements and Title Opinion
[2] Not to exceed 67% of eligible project costs
[3] Sponsor or Other funding source

**Project Manager:** Larry Mallo

**Project Description:** The proposed water transmission main was described in the the 2019 Sheridan Water System Master Plan, Level I Study, and is intended to extend the water supply system through an area of Sheridan that is currently underserved, both on a location and capacity basis. The extension will complete a transmission loop for the City and will provide major water transmission improvements to the northeast side of Sheridan to meet domestic needs, improve health & safety, improve pressure, and increase fire flows in the area.

1. **Describe existing status in the program and previous appropriations.**
   Prior Legislation

| Year | Project | Appropriation |
|---|---|---|
| 2018 | L-I, Sheridan Water Master Plan | $ 250,000 |

2. **Describe existing water supply using information in the application.**
   The City of Sheridan's water is from direct flow rights from a diversion dam and headgate on Big Goose Creek and storage rights in Twin Lakes Reservoir, Park Reservoir, and Dome Lake. Water is provided from the storage reservoirs to the City via gravity flow with a capacity of 25 MGD treated through two water treatment plants. Treated water is stored in 9 buried concrete tanks with 13.9 MG of collective storage and is distributed to the City and surrounding areas through transmission mains and distribution lines.

3. **Summarize the request.**
   To construct a new transmission main to improve service to the northeast side of Sheridan.

**4. Summarize the reasons for the request.**

The 2019 Sheridan Water Master Plan, Level I Study identified the critical need to install this new transmission main pipeline to improve water quality, pressure, and flow to the northeast side of Sheridan due to the age, condition, pipe material, and size of the existing distribution system that extends into this area.

**Estimated Level III WWDC Eligible Costs:**

| | | |
|---|---|---|
| Preparation of Final Designs and Specifications | $ 143,000 | |
| Site Access Permit Fees (BOR, USFS, etc.) | $ 20,000 | |
| Title Opinion | $ 5,000 | |
| Acquisition of Access and Rights of Way | $ 150,000 | |
| Pre-Construction Costs (Subtotal # 1) | | $ 318,000 |
| | | |
| Cost of Project Components | | |
| Mobilization | $ 112,500 | |
| 10,900' of 16" Main | $ 1,018,000 | |
| Crossing I-90 | $ 277,000 | |
| Connections | $ 22,500 | |
| | | |
| Construction Cost (Subtotal #2) | | $ 1,430,000 |
| Construction Engineering Costs (Subtotal # 2 x 10%) | | $ 143,000 |
| Components and Engineering Costs (Subtotal # 3) | | $ 1,573,000 |
| Contingency (Subtotal #3 x 15%) | | $ 235,950 |
| Construction Cost Total (Subtotal #4) | | $ 1,808,950 |
| | | |
| Total Project Cost (Subtotal #1 + Subtotal #4) | | $ 2,126,950 |
| Inflation Costs (4% per 1 year) | | $ 85,078 |
| COVID Specific Inflation Costs (10%) Project components | | $ 143,000 |
| | | |
| **Total Project Costs** | | **$ 2,355,028** |
| | | |
| **Total Project Costs (Rounded)** | | **$ 2,355,000** |
| | | |
| **Level III Recommended Funding @ 67% Grant – Total Costs:** | | **$ 1,577,850** |
| | | |
| **Level III Recommended Funding @ 67% Grant - Pre-Construction Only** | | **$ 213,060** |

**Ineligible Expenses**

| | |
|---|---|
| **Total Ineligible Project Costs** | **$ 0** |

**PROJECT INFORMATION:**

**A. FINANCIAL INFORMATION**

**1.** Service Area Information

**a.** Population (2020 Census) 18,737 (City Only) (Current Estimate) 19,200 (City & SAWS JPB combined)

**b.** Does the entity have a comprehensive planning boundary? Yes

If so, what is the estimated additional population that could be served in the future? 20,000.

| | Pre-Project | Post Project |
|---|---|---|
| **c.** Taps served within the entity boundaries? | 8,295 | 8,400 |
| **d.** Taps outside the entity boundaries? | 2,000+ | 2,000+ |

**e.** Names of other water systems served? Raw water is supplied to the Veteran Affairs Medical Center. In addition to the City and the Sheridan Area Water Supply Joint Powers Board (SAWS JPB), treated water is supplied to the Downer Improvement and Service District, and State Girl's School.

| **2.** Water Usage (Potable water system only) | Pre-Project | Post Project |
|---|---|---|
| **a.** Total number of gallons produced by the water sources annually: | 942 MG | 942MG |
| **b.** Gallons used <u>per capita</u> per day: | | |
| Average Day: | 140 | 140 |
| Peak Day: | 380 | 380 |

| **3.** System capacity (Potable water system only): | Pre-Project | Post-Project |
|---|---|---|
| **a.** Maximum capacity of the water supply system | | |
| Acre feet per day: | 77 | 77 |
| Gallons per day: | 25 MGD | 25 MGD |
| **b.** What is the factor (bottleneck) limiting the ability to provide water (supply, canals, etc.): | None | None |

No current bottlenecks, but the capacity of the intake facility could become a bottleneck in the long-term future and eventually, surface water supply will become the limiting factor.

| | | |
|---|---|---|
| **c.** Increased capacity needed: | No increase needed | |
| Acre feet per day | 0 | 0 |
| Gallons per day | 0 | 0 |
| **d.** Estimated system water losses (percentage): | ~10-15% | ~10-15% |

**4.** Does the entity have an independent raw water irrigation system? Yes, for the cemetery and the golf course; not for individual users within the City/SAWS JPB system. The SAWS JPB system has several neighborhoods with separate irrigation systems and separate systems are required when irrigation rights are available. There is a 3.0 cfs water right for the cemetery, which is completely separate from other municipal water supply. Raw water capacity is also available in the 30-inch transmission main for the Kendrick Golf Course and VA Medical Center.

**a.** Raw water system capacity (acre feet per day & gallons per day): 3.21AF/day, 1.05MG/day

**b.** Average annual raw water usage (acre feet & gallons): 675AF, 220MG

**5.** Rates

| | Pre-Project | Post-Project |
|---|---|---|
| **a.** Tap fees: | | |
| Residential: (3/4" - 1") | $ 3,000 | $ 3,000 |
| Commercial: (1") | $ 5,010 | $ 5,010 |
| **b.** Average monthly water bill: ( ¾") | $ 32.73 | $ 32.73 |

**c.** Water Rates

Base for 3/4" residential:

¾" $19.89 for 1500 Gallons, $1.92/1000 for 1500-6000 Gallons, $2.63/1000 gallons above that.

Note: Water rates will not change because of the project, but rates are reviewed regularly and adjusted as required.

**6.** Financial Statement

| | Pre-Project | Post-Project |
|---|---|---|
| Annual revenues generated from water sales: | $ 3,859,800 | $ 3,976,366 |
| Annual revenues from tap fees: | $ 421,700 | $ 425,917 |
| Annual revenues from other sources: | $ 1,192,880 | $ 1,216,738 |
| Total annual revenues: | $ 5,474,380 | $ 5,619,021 |
| Annual budget for operation and maintenance expenses: | $ 3,162,410 | $ 3,230,890 |
| Annual payments for debt retirement: | $ 981,944 | $ 1,198,393 |
| Annual payments to a repair and replacement fund: | $ 543,449 | $ 558,619 |
| Annual payments to an emergency fund: | $ 17,120 | $ 17,606 |
| Annual payments for other purposes: | $ 553,886 | $ 151,000 |
| Total annual payments: | $ 5,258,809 | $ 5,156,508 |
| Balance in repair and replacement fund: O&M & Capital Cash & Depreciation Reserves | $ 2,910,585 | $ 3,729,971 |
| Balance in emergency fund: Emergency items are paid out of Operations, and Capital & Depreciation Reserve Accounts | $ 607,677 | $ 624,797 |
| Annual cost of water quality testing: | $ 48,224 | $ 49,429 |

## B. COMPARISON WITH OPERATING CRITERIA

**1.** Project Priority according to the Criteria? Account I, Priority 3 – Level III transmission pipelines

**2.** Is the project supported by the City Council or County Commission, which has jurisdiction over the project area? Yes

**3.** Will the project serve at least 15 water taps? Yes Number of taps 8,295

**4.** Is the sponsor under any federal (EPA) mandates to improve your system? (eg. Administrative orders, violations, actions taken): No

**5.** Does anyone in the service area haul water? No

**6.** Is the sponsor eligible for funding from other state or federal programs? Yes
If so, what are they: MRG, DWSRF, ARPA

**7.** Is water metered? Yes Are billings based on meter readings? Yes

**8.** What is monthly water bill for 5,000 gallons? $26.61 20,000 gallons? $65.35

**9.** Theoretical reasonable monthly water bill ($59,380 (AMHI) x 2.5%/12) $123.71 (Sheridan County)

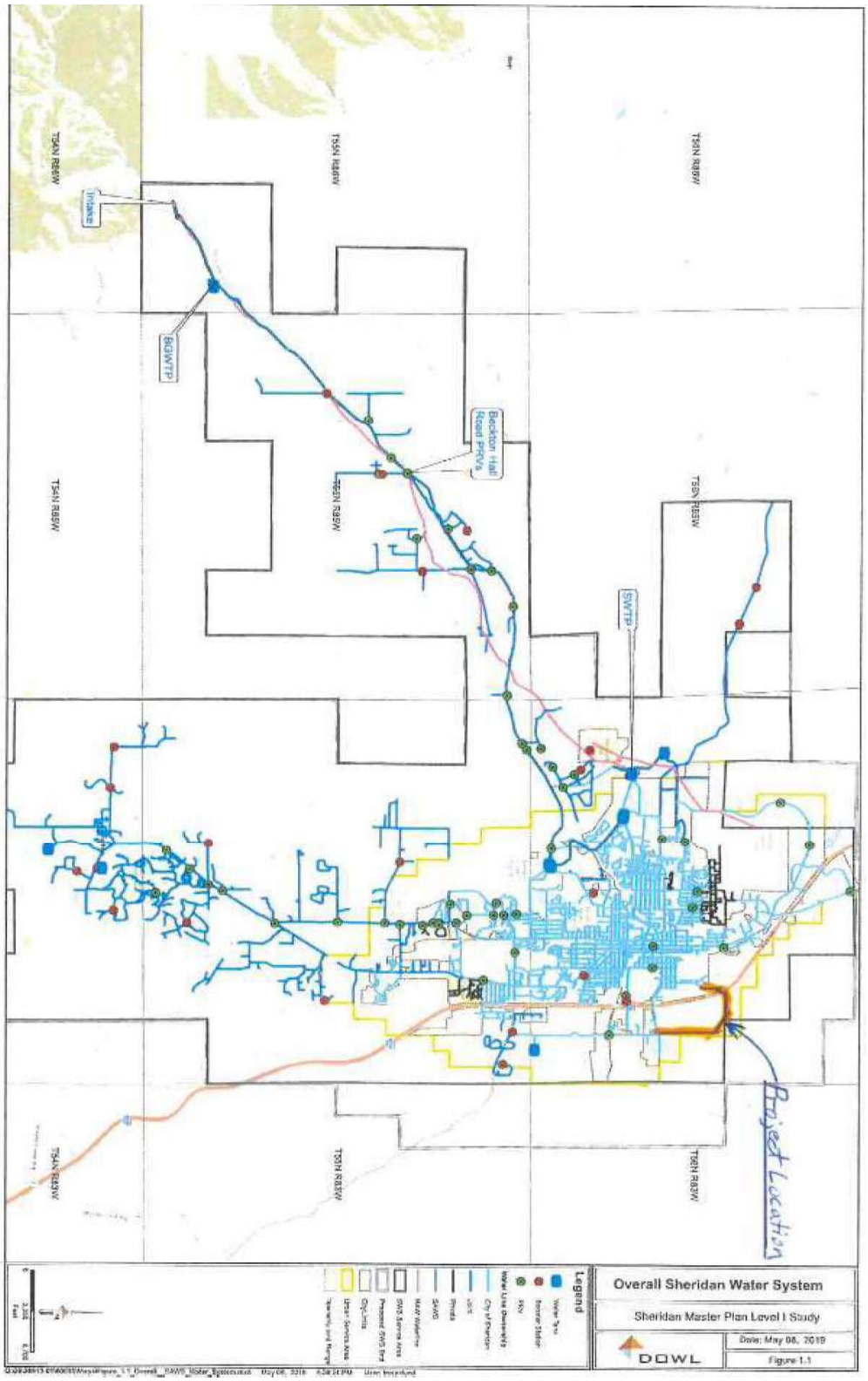
**10.** What water conservation measures are employed by the sponsor? Yes, this system has had a successful water conservation program. The City publishes notices and encourages smart water usage. Tiered water rates are used to encourage conservation.

**11.** Is the operation of the water supply system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds and emergency funds? Yes

**12.** Will the project consider regional solutions? No, regional solutions were considered in 2019 Level I.

**13.** Can the project be delayed or staged? No Should it be? No, see below

**14.** Basis for the funding recommendation: The 2019 Sheridan Water Master Plan, Level I Study identified the replacement of the Sheridan Airport Transmission Main Project as the highest priority project, which is in design. This request for a WWDC 2023 Level III main transmission pipeline extension is a critical next step need of the Sheridan combined water supply system.


Intake
BGWTP
Beckton Heil Road PRVs
SWTP
T52N R86W
T55N R86W
T52N R85W
T54N R85W
T55N R85W
T52N R85W
T54N R84W
T55N R85W
T56N R85W
Project Location
Legend
Overall Sheridan Water System
Sheridan Master Plan Level I Study
DOWL
Date: May 08, 2019
Figure 1.1

Northeast Transmission Line
10,900 LF 16-Inch PVC (4040 HGL)
Legend
Corporate Limits
Parcels
Water Pipeline
NE Trans Line
Northeast Sheridan Tranmission Line
Prepared for Funding Applications
DOWL
Date: July 25, 2022
Figure 1

**CITY OF SHERIDAN**
**RESOLUTION 39-22**

A RESOLUTION AUTHORIZING THE SUBMITTAL OF AN APPLICATION TO THE WYOMING WATER DEVELOPMENT COMMISSION FOR LEVEL III CONSTRUCTION FUNDING.

**WHEREAS**, the Wyoming Water Development Commission (WWDC) has provided funding for several Level I, II and III water system projects for the City of Sheridan over the years including planning projects such as the Sheridan Water System Master Plan (Master Plan) funded by the WWDC and completed in 2019; and

**WHEREAS**, the Sheridan Water System Master Plan identified the Northeast Transmission Main Extension project as the number two priority transmission main project in the sheridan area water system and the number one priority project within the City's portion of the water system; and

**WHEREAS**, this water transmission main extension would satisfy a critical water supply need for northeast Sheridan while providing redundancy and improving the water supply capacity of the overall water system; and

**WHEREAS**, growth and development prospects in northeast Sheridan have presented a need for water supply that is intended, based on the Master Plan, to be satisfied by this project; and

**WHEREAS**, the estimated project costs are $3,441,157 and would represent the WWDC Level III grant request which, if approved, would be funded at 67%, or $2,305,575.19, by the WWDC and 33%, or $1,135,581.81, by the City as the sponsor and owner of the project; and

**WHEREAS**, as a commitment in funding for the sponsor's 33% match, the City of Sheridan Governing Body pledges $1,135,581.81 in funding from the City's Water Enterprise Fund; and

**WHEREAS**, the WWDC has a process for applying for these funds and this Resolution and accompanying application are part of that process.

BE IT RESOLVED BY THE CITY GOVERNING BODY OF THE CITY OF SHERIDAN:

(1) That a Level III funding application be submitted to the WWDC for the above described project.

(2) The City of Sheridan Governing Body pledges $1,135,581.81 in funding from the City's Water Enterprise Fund.

(3) That Dan Roberts, Utilities Director, is hereby designated as the authorized representative of the City of Sheridan, to act on behalf of the Governing Body on all matters relating to this application.

PASSED, APPROVED AND ADOPTED this 8th day of Aug, 2022.

City of Sheridan

Richard Bridger, Mayor

ATTEST:

Cecilia Good, City Clerk

CITY OF SHERIDAN MUNICIPAL SEAL SHERIDAN COUNTY, WYOMING

**PETITION FOR ANNEXATION**

TO: THE CITY COUNCIL OF THE CITY OF SHERIDAN, WYOMING

Pursuant to the provision of W.S. 15-1-403 et. seq. and other applicable statutes, the undersigned land owner(s) respectfully petition and show the City Council as follows:

1. This is a petition for the annexation of eligible territory as determined by W.S. 15-1-402 adjacent to the City of Sheridan, Wyoming with the legal description as follows:

2. Story House Preparatory Company LLC is/are the sole owner(s) of said described property proposed to be annexed, and therefore constitute a majority of the landowners owning a majority of the area sought to be annexed.

3. A map of the area sought to be annexed is attached hereto, marked for exhibit, and made a part hereof.

4. Petitioners hereby request that said land be zoned B-2 upon annexation.

WHEREFORE, petitioners pray that said territory be annexed into the City of Sheridan, Wyoming, pursuant to, and in accordance with the applicable Wyoming Statutes, and that said lands be zoned B-2.

Date this 28 day of April, 2023.

Story House Preparatory Company LLC

Jeff Higgins MANAGING MEMBER

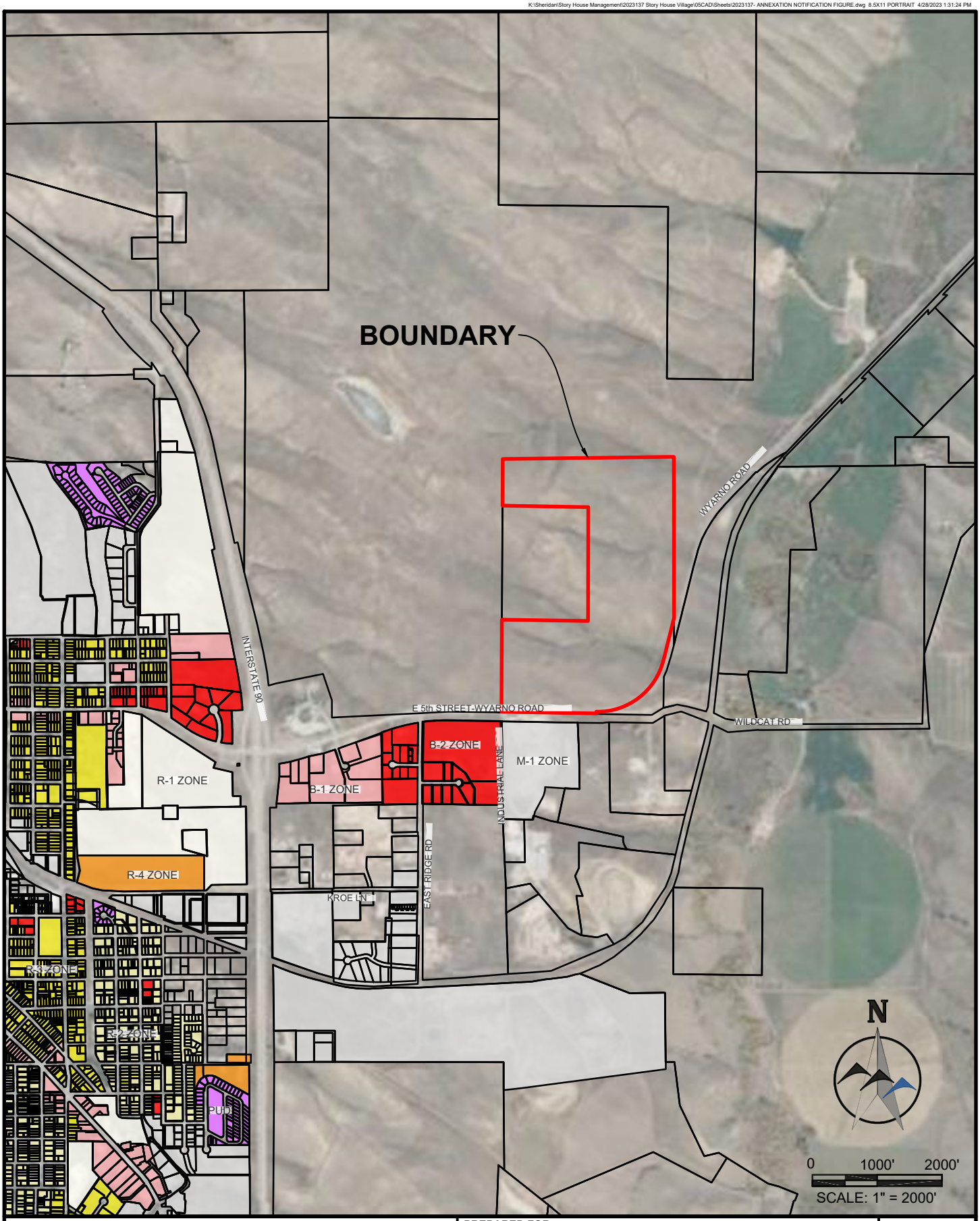
Subscribed and sworn before me this 28th day of April, 2023.

Notary Public

My Commission Expires 05/29/26

ANTHONY M. ARLOTTA
Notary Public - State of New York
NO. 01AR6375854
Qualified in New York County
My Commission Expires May 29, 2026

K:\Sheridan\Story House Management\2023137 Story House Village\05CAD\Sheets\2023137- ANNEXATION NOTIFICATION FIGURE.dwg 8.5X11 PORTRAIT 4/28/2023 1:31:24 PM




SE1/4, S2NE1/4, S24, T56N, R84W

# ANNEXATION MAP

*SHERIDAN COUNTY, WY*

**PREPARED FOR**

CITY OF Sheridan WYOMING

55 GRINNELL PLAZA
SHERIDAN, WY 82801

**PREPARED BY**

WWC ENGINEERING

1849 TERRA AVE.
SHERIDAN, WY 82801
(307) 672-0761
www.wwcengineering.com

| | |
|---|---|
| DESIGNED BY: | |
| DRAWN BY: | SER |
| CHECKED BY: | SER |
| DATE: | 4/28/23 |

SHEET

1

ORDINANCE NO. 2268

AN ORDINANCE annexing a 175.56 acre parcel of land situated in the SE1/4, S1/2NE1/4, Section 24, Township 56 North, Range 84 West 6th Principal Meridian, Sheridan County, Wyoming, and zoning said parcel as B-2 Business District.

WHEREAS Story House Property Company, LLC is the sole owner thereof, have petitioned to the City of Sheridan in writing for the annexation of the following described land to the City of Sheridan and have petitioned for the zoning thereof as B-2 Business District; and

WHEREAS the Sheridan City Clerk has certified on _____ that all petition documents were complete; and

WHEREAS, the City of Sheridan Governing Body held a hearing on _____ in accordance with W.S. 15-1-405 and certified by resolution that the requirements of W.S. 15-1-402 and other relevant statutes and City ordinances; and

WHEREAS, the property is owned solely by the petitioner, ergo, W.S. 15-1-406 is not applicable; and
WHEREAS, the Planning Commission held a hearing on _____ reviewing the petition; and

WHEREAS the Planning Commission of the City of Sheridan has recommended to the City Governing Body that said tract of land be annexed to the City, and that the same be zoned B-2 Business Districts and

WHEREAS the City Governing Body has determined the annexation of said tract, which is adjacent to the City, and the zoning thereof as B-2 Business Districts would protect the health, safety, and welfare of the persons and property both within the City and in the area to be annexed; and that the urban development of the area would constitute a natural, geographical, economic and social part of the City, and a logical and feasible addition thereto which could be reasonably furnished with all necessary municipal services; now THEREFORE,

BE IT ORDAINED BY THE CITY OF SHERIDAN GOVERNING BODY:

Section 1. That the following described tract of land are hereby annexed into the City of Sheridan and B-2 Business District as per the attached exhibit, to wit:

A tract of land situated in the SE1/4 and S1/2NE1/4 of Section 24, Township 56 North, Range 84 West, of the Sixth Principal Meridian, Sheridan County, Wyoming and is more particularly described as follows:

Beginning at the center-North one-sixteenth corner of Section 24, monumented by an aluminum cap PLS 6594; thence N89°19’58”E a distance of 2642.22 feet to the North one-sixteenth corner of Section 24, monumented by an aluminum cap PLS 6812; thence S00°03’03”E a distance of 1355.50 feet to the East quarter corner of Section 24, monumented by an aluminum cap PLS 2608; thence along the East line of Section 24 S00°02’46”E a distance of 1128.97 feet to a point of intersection with the northwesterly right-of-way of State Highway No. 336, monumented by an aluminum cap PLS 6812; thence continuing along said northwesterly right-of-way S14°03’06”W a distance of 676.46 feet, monumented by a highway monument; thence through a curve to the right, having a radius of 1045.92 feet, a central angle of 76°57’52”, an arc length of 1404.97 feet, a chord bearing of S52°31’12”W, and a chord length of 1301.69 feet, monumented by a highway monument; thence S01°14’12”W a distance of 24.84 feet, monumented by a highway monument; thence N89°00’40”W a distance of 1464.84 feet, monumented by an aluminum cap PLS 6812; thence leaving said right-of-way and on the center quarter line of said Section 24, N00°16’03”E a distance of 1422.12 feet, monumented by an aluminum cap PLS 14277; thence leaving said center quarter line, S89°00’40”E a distance of 1348.16 feet, monumented by an aluminum cap PLS 14277; thence N00°16’03”E a distance of 1758.52 feet, monumented by an aluminum cap PLS 14277; thence N89°00’40”W a distance of 1348.16 feet to a point on the center quarter line of Section 24, monumented by an aluminum cap PLS 14277; thence along said center quarter line N00°16’03”E a distance of 720.94 feet to the point of beginning.

Said tract contains 175.56 acres, more or less, and is subject to any and all easements, rights-of-way, reservations, and other encumbrances that have been legally acquired.

Section 2. ZONING. That the above described land be zoned B-2 Business District.

Section 3. FINDINGS. That the City Council resolves and makes the following findings in accordance with Wyoming State Statute 15-1-402:

(i.) An annexation of the area is for the protection of the health, safety and welfare of the persons residing in the area and in the city or town;

(ii) The urban development of the area sought to be annexed would constitute a natural, geographical, economical and social part of the annexing city or town;

(iii) The area sought to be annexed is a logical and feasible addition to the annexing city or town and the extension of basic and other services customarily available to residents of the city or town shall, within reason, be available to the area proposed to be annexed;

(iv) The area sought to be annexed is contiguous with or adjacent to the annexing city or town, or the area meets the requirements of W.S. 15-1-407;

(v) If the city or town does not own or operate its own electric utility, its governing body is prepared to issue one (1) or more franchises as necessary to serve the annexed area pursuant to W.S. 15-1-410; and

(vi) The annexing city or town, not less than twenty (20) business days prior to the public hearing required by W.S. 15-1-405(a), has sent by certified mail to all landowners and affected public utilities within the territory a summary of the proposed annexation report as required under subsection (c) of this section and notice of the time, date and location of the public hearing required by W.S. 15-1-405(a).
.

Section 4. SEVERABILITY. If any provision or portion of this ordinance is declared by any court of competent jurisdiction to be void, unconstitutional, or unenforceable, than all remaining provisions and portions of this ordinance shall remain in full force and effect.

Section 5. EFFECTIVE DATE. That this ordinance shall be in full force and effect immediately upon its passage and publication as by law provided.

PASSED, APPROVED, AND ADOPTED this _____ day of _____, 2023.

_____
Richard Bridger – Mayor

ATTEST:

_____
Cecilia Good – City Clerk

State of Wyoming )
)SS
County of Sheridan )

Subscribed and sworn to (or affirmed) before me this _____day of

_____, 2023 by _____.

_____
Notary Public

My commission expires _____.

# CITY OF SHERIDAN, WYOMING

55 Grinnell Street, P.O. Box 848, Sheridan Wyoming 82801
Ph (307) 674-6483 Fax (307) 674-2195


***Public Works***

## MEMORANDUM

| | |
|---|---|
| Project Name: | Discussion of PL-23-16, Resolution 25-23, Poll Motor Subdivision - Public Works Director Hanns Mercer |
| From: | Hanns Mercer, Public Works Director |
| To: | Mayor and Council |
| CC: | |
| Date: | 05/09/2023 |

**Recommendation:**

Staff recommends approval of PL-23-16, Resolution 25-23, Poll Motor Subdivision. The applicants, Lynette Neighbors and TC Neighbors Trustees, are requesting to subdivide 6.7 acres from unplatted land and 1 lot into 2 lots. Zoned M-1, Industrial District. Located at 1808, 1810 1812 and 1858 Coffeen Avenue (PIN 56843530005500 and 56843536500225).

**Background:**

The applicants, Lynette Neighbors and TC Neighbors Trustees, are requesting to subdivide 6.7 acres from unplatted land and 1 lot into 2 lots. Zoned M-1, Industrial District. Located at 1808, 1810, 1812 and 1858 Coffeen Ave (PIN 56843530005500, 56843536500225).

The property is listed as Lot 2 of the JMK Subdivision and unplatted land, zoned M-1 Industrial District.

Surrounding properties are zoned M-1. The applicant is proposing to adjust the property line between Parcel 1 and Parcel 2. The applicant is proposing the following lot sizes:

- Parcel 1 - 2.52 acres
- Parcel 2 - 4.18 acres

Access to both properties will come via Coffeen Avenue.

**Discussion:**

Prior to approving the final plat, the City Council will need to make the following findings per Sheridan City Code Appendix B §202, staff offers the following comments on the required findings:

*The City shall not approve any proposed subdivision of land which, by itself, or as a part of a larger tract, is contiguous to or completely surrounded by the boundaries of the City, unless the application is accompanied by a properly-acknowledged petition for annexation to the City.*

This property falls completely within the city limits, so this condition does not apply.

*The City shall not approve any proposed subdivision of land which is within one mile of the corporate limits of Sheridan but not, at the time of submittal, eligible for annexation, unless the application is accompanied by a properly-acknowledged agreement not to contest future annexation proceedings.*

Again, not applicable in this case, the property is within the city limits.

*Every plat shall conform to the Zoning Ordinance currently adopted at the time of final plat approval.*

The proposed subdivision conforms to the Zoning Ordinance.

*All new subdivision developments within the Airport Influence Area within the city limits of the City of Sheridan shall grant an Avigation Easement to the Sheridan County Airport.*

This proposed subdivision is outside the Airport influence area.

*No subdivision shall be approved within the corporate limits of the City of Sheridan, or one mile thereof, unless City Public Works staff concludes that an adequate long-term water supply exists to support the proposed use and density of the subdivision in accordance with City adopted policy. City elected officials acting as Council representatives on other boards or committees that review development shall likewise consider long-range water supply in making any determination.*

Staff sent out 21 nearest neighbor notifications to property owners within 300 feet as part of this application. In addition, notifications were advertised in the press. The staff have not received any inquiries.

Staff has no further comments at this time.

---

**Attachments**

Final Plat
Aerial
Resolution 25-23

# POLL MOTOR SUBDIVISION

LOCATED IN THE SE1/4 SW1/4 OF SECTION 35, TOWNSHIP 56 NORTH, RANGE 84 WEST 6TH PRINCIPAL MERIDIAN, SHERIDAN COUNTY, WYOMING

## CERTIFICATE OF OWNER

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED THOMAS C. NEIGHBORS AND LYNETTE S. NEIGHBORS, BEING THE OWNERS, PROPRIETORS, OR PARTIES OF INTEREST IN THE LAND SHOWN ON THIS PLAT, DO HEREBY CERTIFY:

THAT THE FOREGOING PLAT IS DESIGNATED AS THE REPLAT OF ??????, WESTERN ADDITION DESCRIBED AS FOLLOWS:

**PARCEL 1**

THE NORTH 150 FEET OF THE EAST 583 FEET OF LOT 3 (NE1/4NW1/4) OF SECTION 2, TOWNSHIP 55 NORTH, RANGE 84 WEST OF THE 6TH P.M., EXCEPTING THE EAST 33 FEET THEREOF CONSTITUTING THE STATE HIGHWAY (NOS. 87 & 14).

ALSO

A TRACT OF LAND SITUATED IN THE SE1/4SW1/4 OF SECTION 35, TOWNSHIP 56 NORTH, RANGE 84 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS, TO WIT:

BEGINNING AT A POINT 33 FEET WEST OF THE SOUTHEAST CORNER OF THE SW¼ OF SAID SECTION 35, SAID POINT BEING ON THE WEST RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 87 AND 14 (AS LOCATED IN THE YEAR 1935), THENCE NORTH, ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 150 FEET, MORE OR LESS, TO A POINT, THENCE WEST 132 FEET, THENCE NORTH 100 FEET, THENCE WEST 418 FEET, THENCE SOUTH 250 FEET, MORE OR LESS, TO THE SOUTH BOUNDARY LINE OF SAID SE1/4SW1/4, AND THENCE EAST, ALONG SAID SOUTH BOUNDARY LINE OF SAID SE1/4SW1/4, A DISTANCE OF 550 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED PROPERTY, TO WIT:

THAT PORTION OF LOT 3, SECTION 2, TOWNSHIP 55 NORTH, RANGE 84 WEST, 6TH P.M., CITY OF SHERIDAN, SHERIDAN COUNTY, WYOMING; SAID PORTION BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH QUARTER CORNER OF SAID SECTION 2; THENCE S89°52'38"W, 33.00 FEET ALONG THE NORTH LINE OF SAID LOT 3 TO THE POINT OF BEGINNING OF SAID TRACT; SAID POINT LYING ON THE EAST LINE OF A TRACT OF LAND DESCRIBED IN BOOK 384 OF DEEDS, PAGE 246; THENCE S00°19'26"E, 150.36 FEET ALONG SAID EAST LINE TO A POINT, SAID POINT LYING ON THE NORTH RIGHT OF WAY LINE OF RIVERSIDE STREET; THENCE S89°53'24"W, 549.48 FEET ALONG SAID NORTH RIGHT OF WAY LINE TO A POINT, SAID POINT BEING THE SOUTHEAST CORNER OF LOT 7 OF THE KING NEIGHBORS ADDITION TO THE CITY OF SHERIDAN, WYOMING; THENCE N00°22'55"W, 150.24 FEET ALONG THE EAST LINE OF SAID LOT 7 TO A POINT, SAID POINT LYING ON SAID NORTH LINE OF SAID LOT 3, SECTION 2; THENCE N89°52'38"E, 549.63 FEET ALONG SAID NORTH LINE OF LOT 3 TO THE POINT OF BEGINNING OF SAID TRACT.

SAID TRACT CONTAINS 1.896 ACRES OF LAND, MORE OR LESS.

BASIS OF BEARINGS IS WYOMING STATE PLANE (EAST CENTRAL ZONE).

TOGETHER WITH ALL IMPROVEMENTS AND APPURTENANCES SITUATE THEREON.

SUBJECT TO ALL EXCEPTIONS, RESERVATIONS, RIGHTS-OF-WAY, EASEMENTS, COVENANTS, RESTRICTIONS, AND RIGHTS OF RECORD AND SUBJECT TO ANY STATE OF FACTS WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY OR PHYSICAL INSPECTION OF THE PREMISES AND SUBJECT TO BUILDING AND ZONING REGULATIONS AND CITY, STATE AND COUNTY SUBDIVISION LAWS.

**PARCEL 2**

LOT 2 OF THE JMK SUBDIVISION TO THE CITY OF SHERIDAN, A SUBDIVISION IN SHERIDAN COUNTY, WYOMING, AS RECORDED IN DRAWER J, PLAT #9 IN THE SHERIDAN COUNTY CLERK'S OFFICE, SHERIDAN COUNTY, WYOMING.

TOGETHER WITH ALL IMPROVEMENTS SITUATE THEREON AND ALL APPURTENANCES THEREUNTO APPERTAINING OR BELONGING.

SUBJECT TO ALL EXCEPTIONS, RESERVATIONS, RIGHTS-OF-WAY, EASEMENTS, COVENANTS, RESTRICTIONS, AND RIGHTS OF RECORD AND SUBJECT TO ANY STATE OF FACTS WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY OR PHYSICAL INSPECTION OF THE PREMISES.

THAT THIS SUBDIVISION, AS IT IS DESCRIBED AND AS IT APPEARS ON THIS PLAT, IS MADE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS AND PROPRIETORS, AND THAT THIS IS A CORRECT PLAT OF THE AREA AS IT IS DIVIDED INTO LOTS, BLOCKS, STREETS AND EASEMENTS; AND

THAT THE UNDERSIGNED OWNERS OF THE LAND SHOWN AND DESCRIBED ON THIS PLAT DO HEREBY DEDICATE TO THE CITY OF SHERIDAN AND ITS LICENSEES FOR PUBLIC USE FOR THE INDICATED PURPOSES ALL STREETS, ALLEYS, EASEMENTS AND OTHER PUBLIC LANDS WITHIN THE BOUNDARY LINES OF THE PLAT, AS INDICATED, AND NOT ALREADY OTHERWISE DEDICATED FOR PUBLIC USE.

UTILITY EASEMENTS, AS DESIGNATED ON THIS PLAT, ARE HEREBY DEDICATED TO THE CITY OF SHERIDAN AND ITS LICENSEES FOR PUBLIC USE FOR THE PURPOSE OF INSTALLING, REPAIRING, REINSTALLING, REPLACING AND MAINTAINING SEWERS, WATER LINES, GAS LINES, ELECTRIC LINES, TELEPHONE LINES, CABLE TELEVISION LINES, AND OTHER FORMS AND TYPES OF PUBLIC UTILITIES NOW OR HEREAFTER GENERALLY UTILIZED BY THE PUBLIC.

ALL RIGHTS UNDER AND BY VIRTUE OF THE HOMESTEAD EXEMPTION LAWS OF THE STATE OF WYOMING ARE HEREBY WAIVED AND RELEASED.

EXECUTED THIS _____ DAY OF _____, 2023 BY:

_____ _____

THOMAS C. NEIGHBORS LYNETTE S. NEIGHBORS

STATE OF WYOMING }
COUNTY OF SHERIDAN } ss

ON THIS, THE _____ DAY OF _____, 2023, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED THOMAS C. NEIGHBORS AND LYNETTE S. NEIGHBORS, KNOWN TO ME OR SATISFACTORILY PROVEN TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT HE EXECUTED THE SAME FOR THE PURPOSE DESCRIBED HEREIN.

IN WITNESS HEREOF, I SET MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

THE UNDERSIGNED _____, HEREINAFTER MORTGAGEE, HOLDS A MORTGAGE IN AND TO THE PROPERTY EMBRACED BY THIS SUBDIVISION PLAT, WHICH MORTGAGE WAS FILED WITH THE CLERK OF SHERIDAN COUNTY AND EX-OFFICIO RECORDER OF DEEDS IN BOOK _____ OF MORTGAGES, AT PAGE _____. MORTGAGEE, BY SIGNATURE ON THIS PLAT, CONSENTS TO THE DEDICATIONS MADE HEREIN AND SPECIFICALLY RELEASES ALL STREETS, ALLEYS, PARKS, EASEMENTS, OPEN SPACES AND OTHER AREAS DEDICATED TO THE CITY OF SHERIDAN FOR PUBLIC USE, AS LISTED AND DESCRIBED ON THIS PLAT, FROM THE AFOREMENTIONED MORTGAGE.

EXECUTED THIS _____ DAY OF _____, 2023 BY:

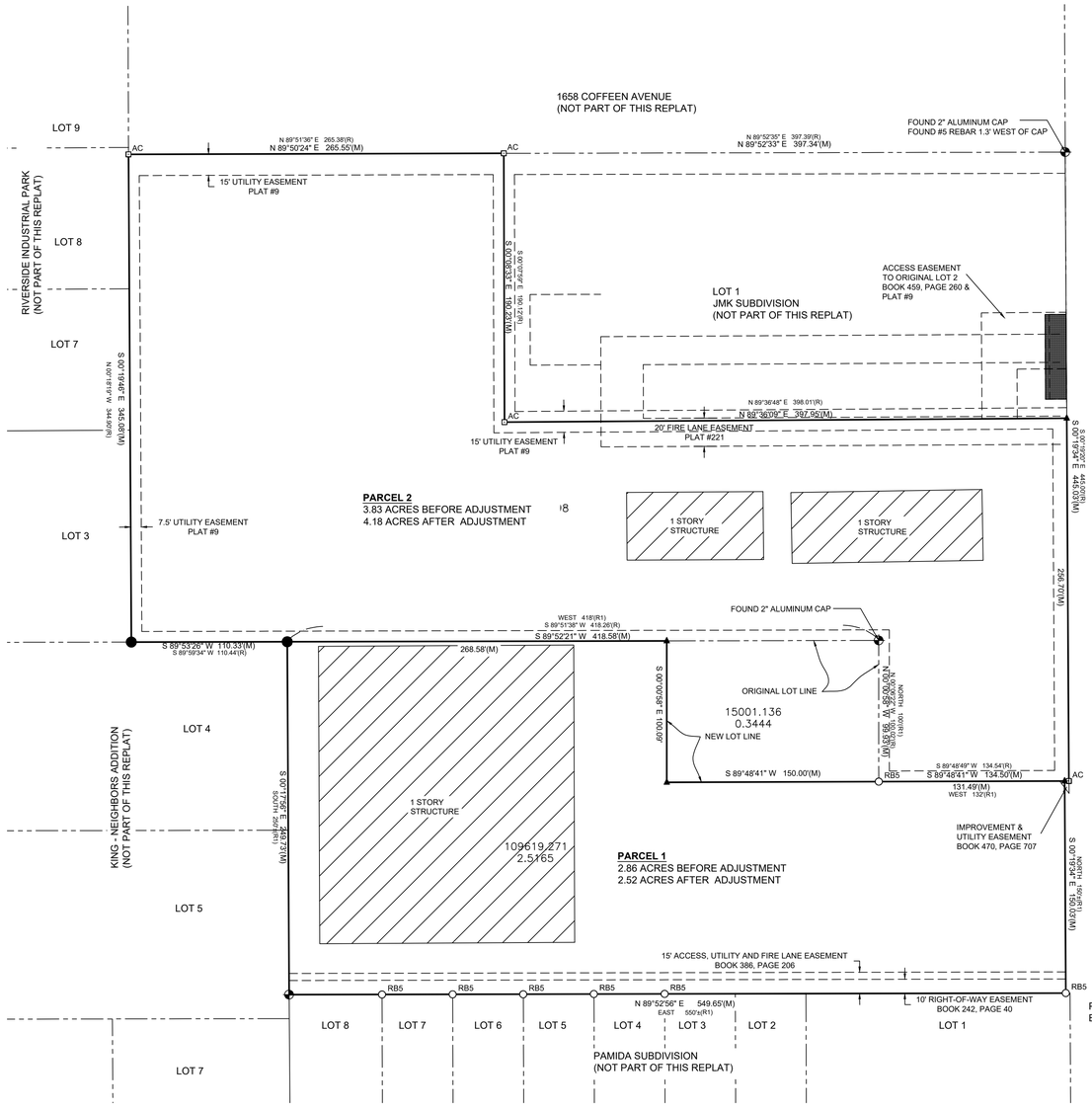
_____

STATE OF WYOMING }
COUNTY OF SHERIDAN } ss

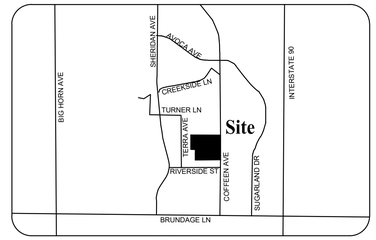
ON THIS, THE _____ DAY OF _____, 2023, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, KNOWN TO ME OR SATISFACTORILY PROVEN TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT HE EXECUTED THE SAME FOR THE PURPOSE DESCRIBED HEREIN.

IN WITNESS HEREOF, I SET MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC




## Vicinity Map




NOT TO SCALE

## DIRECTOR OF PUBLIC WORKS CERTIFICATE OF APPROVAL

THIS PLAT HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS AND PROCEDURES OUTLINED IN THE SUBDIVISION REGULATIONS OF THE CITY OF SHERIDAN, WYOMING, AND CERTIFIED THIS ____DAY OF _____, 2023, BY THE DIRECTOR OF PUBLIC WORKS OF SHERIDAN, WYOMING.

_____
DIRECTOR OF PUBLIC WORKS

## CERTIFICATE OF THE CITY OF SHERIDAN PLANNING COMMISSION

Reviewed by the City of Sheridan Planning Commission this ____ day of _____, 2023.

_____ _____
Attest: Vice-Chairman Chairman

## CITY OF SHERIDAN CERTIFICATE OF APPROVAL

APPROVED BY THE CITY COUNCIL OF THE CITY OF SHERIDAN THIS ____ DAY OF _____, 2023.

_____ _____
ATTEST: CITY CLERK MAYOR

## CERTIFICATE OF RECORDER

STATE OF WYOMING }
COUNTY OF SHERIDAN } ss

THIS PLAT WAS FILED FOR RECORD IN THE OFFICE OF THE CLERK AND RECORDER AT _____O'CLOCK THIS ____ DAY OF _____, 2023, AND IS DULY RECORDED IN BOOK _____ PAGE _____.

_____
COUNTY CLERK

50' 0' 50' 100'
SCALE: 1" = 50'

## LEGEND:

- ✣ - FOUND 3" ALUMINUM CAP (UNLESS NOTED OTHERWISE)
- ● - FOUND 1" ALUMINUM CAP
- ○ RB5 - FOUND #5 REBAR
- ⊡ AC - FOUND 1 ½" ALUMINUM CAP
- ▲ - SET #5 REBAR WITH PLASTIC CAP LS 10287
- (M) - MEASURED
- (R) - RECORD PER JMK SUBDIVISION DRAWER J, PLAT NO. 9
- (R1) - RECORD PER BOOK 392, PAGE 204

## NOTES:

1. BASIS OF BEARINGS IS WYOMING STATE PLANE, EAST CENTRAL ZONE, NAD 83.
2. DISTANCES ARE GROUND (PROJECT ADJUSTMENT FACTOR: 1.000230).
3. TITLE REPORT SUPPLIED BY SOVEREIGN STATE TITLE, LLC, ORDER # SSTC-23-10071, DATED MARCH 28, 2023.

## DECLARATION VACATING PREVIOUS PLATTING

THIS PLAT IS A REPLAT OF A PORTIN OF BLOCK 18 OF COFFEEN'S SECOND ADDITION,BEING PART OF THE SW ¼ OF SECTION 26, TOWNSHIP 56 NORTH, RANGE 84 WEST OF THE 6TH PRINCIPAL MERIDIAN, SHERIDAN COUNTY, WYOMING, ALL EARLIER PLATS OR PORTIONS THEREOF ENCOMPASSED BY THE BOUNDARIES OF THIS PLAT ARE HEREBY VACATED.

## CERTIFICATE OF SURVEYOR

I, JASON D. LEVANEN, A REGISTERED LAND SURVEYOR IN THE STATE OF WYOMING, HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM A SURVEY PERFORMED BY ME OR UNDER MY SUPERVISION IN FEBRUARY, 2022, AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.

Professional Land Surveyor
JASON D. LEVANEN
LS 10287
Date:
WYOMING

PRELIMINARY

JASON D. LEVANEN
PLS#10287

PREPARED FOR

MC2 ENGINEERING
902 N MAIN ST
SHERIDAN, WYOMING:

PREPARED BY:

Arrow
Survey Group, Inc.
Sheridan, WY 82801 (307) 751-7543

# Poll Motor Subdivision

DISCLAIMER:
The City of Sheridan GIS Division produced this map for informational purposes only. The City of Sheridan provides this map on an "as is" basis without warranties of any kind, either expressed or implied, and shall not be liable for any direct, indirect, incidental, special or consequential damages arising out of the use of such map. The user acknowledges and agrees that the use of such data is at the sole risk of the user. General questions about this map including errors, omissions, and/or updates should be directed to the City of Sheridan GIS Division.

CITY OF Sheridan WYOMING

N

Miles 0 ¾ 1½

Date: 05/08/2023 11:52 AM User: sgoodman

**CITY OF SHERIDAN**
**RESOLUTION 25-23**

A RESOLUTION approving PL-23-16, the minor plat of the Poll Motor Subdivision, dividing 6.7 acres from unplatted land and 1 lot into 2 lots. Zoned M-1 Industrial District. Located at 1808, 1810, 1812 and 1858 Coffeen Ave.

**WHEREAS**, the minor plat of the Poll Motor Subdivision, has been reviewed for consistency with Appendix B (Subdivision Regulations) and other applicable City code; and

**WHEREAS**, all applicable requirements for a final plat, have been met and all documents meet the applicable requirements in Appendix B (Subdivision Regulations).

**Be it resolved by the City Council of the City of Sheridan:**

That the final plat of the Poll Motor Subdivision, dividing 6.7 acres from 1 lot and unplatted land into 2 lots on the property located at 1808, 1810, 1812 and 1858 Coffeen Ave.

In approving the Poll Motor Subdivision, the City Council finds the following as required by Sheridan City Code Appendix B §202:

A. The property is already within the corporate limits of the City and requires no further action as pertains to annexation.

B. The lots as platted conform to the requirements of the City Zoning Ordinance with the exception of the variances granted.

C. The subdivision falls outside of the Airport Influence Area.

D. As concluded by City Public Works staff, there is adequate long-term water supply to serve this subdivision as of the time of this resolution.

PASSED, APPROVED, AND ADOPTED this 5th of June 2023.

_____
Richard Bridger, Mayor

ATTEST:

_____
Cecilia Good, City Clerk

# CITY OF SHERIDAN, WYOMING

55 Grinnell Street, P.O. Box 848, Sheridan Wyoming 82801
Ph (307) 674-6483 Fax (307) 674-2195


***Police***

## MEMORANDUM

| | |
|---|---|
| Project Name: | Discussion of Bid Award to Associated Construction Engineering for the Design, Construction, Bidding, and Construction Administration for the Police Department Boiler Replacement in the Amount of $26,750 |
| From: | Travis Koltiska, Police Chief |
| To: | Mayor and Council |
| CC: | City Administrator Stuart McRae |
| Date: | 05/22/2023 |

**Attachments**

Boiler Upgrade Project Proposal

ACE est. 1987 INC
ASSOCIATED • CONSTRUCTION • ENGINEERING

March 8, 2023

Mr. Travis Koltiska, Chief of Police
Mr. Nate Dygon, Patrol Officer
Sheridan Police Department
45 West 12th Street
Sheridan, WY 82801

RE: Professional Engineering Services Fee Proposal
Boiler Plant Upgrade – Sheridan Police Department Building
ACE Ref No.: ASH6274

Dear Travis and Nate,

Thank you for the opportunity to submit the following professional engineering fee proposal to you for the above-referenced project.

It is our understanding the proposed project consists of developing a design solution and produce appropriate construction and bidding documents to replace the existing natural gas-fired, atmospheric boiler and associated plant equipment & components at the Sheridan Police Department facility with a new boiler plant (boiler, pumps, accessories, and controls). The new boiler plant will be sized to meet the facility's maximum heat load demand, and designed to maximize boiler and plant efficiency and coincide system function and operation with the facility's existing water source heat pump system used for space cooling and heating. The existing heat pumps utilize a low water temperature operation for the heating side operation; refer to the Sheridan Police Department Remodel drawings dated 2/22/2016.

A.C.E., Inc. shall provide professional engineering services including:

Design and Construction Document Services
- Review existing field conditions
- Review existing construction drawings
- As-Build existing conditions as necessary to support the project
- Develop Probable Construction Estimates
- Design Development
- Construction Documents
  - Drawings
  - Technical Specifications
  - Division 00 – Procurement and Contracting Requirements
  - Division 01 – General Requirements

Bidding Services
- Assist the City of Sheridan in Project Bid Advertisement Efforts
- Manage Pre-Bid Conference
- Address Bidder Questions

- Develop necessary Pre-Bid Addendums
- Attend Bid Opening
- Assist the City of Sheridan in Bid Award

Construction Administration Services

- Participate in Pre-Construction Conference
- Review Contractor Pay Applications
- Perform Shop Drawing Review
- Address Contractor Construction Questions
- Develop necessary PR and CO Documents
- Perform two (2) - Construction Inspections and Reports
- Perform Operation and Maintenance Manual Review
- Perform HVAC Test and Balance Report Review
- Perform one (1) - Substantial Completion Inspection and Report
- Perform one (1) - Final Inspection and Report
- Perform one (1) - 11 Month Warranty Inspection and Report
- Complete Electronic As-Built Documentation from contractor redlines
- Assist the City of Sheridan with Contractor Project Close-Out Requirements

These design services will be **inclusive** of the following systems:

- Plumbing Systems
- HVAC Systems
- Temperature Control Systems (Performance Specification)
- Electrical Power Systems
- Architectural Services "As-Needed" (ACE will secure the services of a licensed Architect)
- Structural Services "As-Needed" (Ace will secure the services of a licensed Structural)

We have not included:

- Environmental and Hazardous Material Assessments and Testing
- Soils, Concrete, and Building Materials Testing

This project will be delivered electronically in a current version of Revit (BIM) software designed solutions. The level of design (LOD) will be 200. Any level of design beyond LOD 200 may be provided as an additional service to this proposal once a firm scope of work is defined for the project.

> LOD 200 – Approximate Geometry
>
> The Model Element is graphically represented within the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation. Any information derived from LOD 200 elements must be considered approximate.

Our MEP Models will not be shared or presented to the building contractors without prior written request and approval.

Our project will be covered by our $2 million Professional E&O Liability Insurance Policy.

We have included in-house printing for our use only. No reproduction of documents for bidding,

reviews, etc. is included. However, we will provide these services as directed in addition to our base fee at direct cost to ACE plus 10% for handling.

Also, ALL project related travel costs (including but not limited to Car Rental, Fuel, Lodging, Meals, etc…), if any, are included in the below Fixed Base Fee.

Based on the above, we propose a Fixed Base Fee of $26,750.

We will be billing you monthly on a percentage of completion basis using the following fee breakdown:

| | |
|---|---|
| Design Development | $ 10,400 |
| Construction Documents | $ 10,400 |
| Bidding/Negotiation | $ 1,100 |
| Construction Administration | $ 4,850 |

All payments are due thirty (30) days after receipt of invoice. Accounts sixty (60) days past due will be assessed interest on the unpaid balance at an annual rate of 10%.

If the above terms and conditions are agreeable to you, please sign and date this proposal and return one executed copy to our office. Our receipt of the signed agreement will serve as our notice to proceed.

Monte Roma
Vice President and Branch Manager
Associated Construction Engineering Inc.

| _____ | _____ | _____ |
|---|---|---|
| Accepted By (Name) | Title | Date |