Sheridan City Planning Commission
Meeting Agenda
June 22, 2020
7:00 PM, City Council Chamber, City Hall

1. Call to Order and Roll Call of Members

2. Approval of Agenda as Presented

   Motion by:

   Second:

   Vote:

3. Review, correction, and approval of minutes of the June 8, 2020 meeting.

   Motion by:

   Second:

   Vote:

   Old Business

   New Business

4. Consideration of PL-20-19 and PL-20-23: Hidden Bridge Ranch PUD, to rezone 18.55 acres from R-1 Residence District and B-1 Business District to a PUD, Planned Unit Development and a preliminary plat subdivision to divide the property into 100 lots. Located in the 700 block of Mydland Road, south of W 5th St.

   Motion by:

   Second:

   Vote:

5. Comments from commissioners and staff.

6. Adjourn

MEMO

TO: Planning Commission

FROM: Wade Sanner, Community Development Director

RE: Consideration of PL-20-19 and PL-20-23: the applicant, Excalibur Construction, is requesting approval of Hidden Bridge Ranch PUD, to rezone 18.55 acres from R-1 Residence District and B-1 Business District to a PUD, Planned Unit Development and a preliminary plat subdivision to divide the property into 100 lots. Located in the 700 block of Mydland Road, south of W 5th St.

Staff Recommendation

Staff recommends the Planning Commission recommend Council approval of the following items for the properties located in the 700 block of Mydland Road, South of West 5th Street (Parcels: 56842830000533, 56842910600233):

1. Approval to rezone the properties from B-1 and R-1 to PUD.

2. Approval of the Conceptual Plan and Conceptual Design report for the Hidden Bridge Planned Unit Development.

3. Approval of the preliminary plat to subdivide 18.55 acres into 100 lots.

Findings of Fact

Neither state statute nor city code contains required findings that must be made in changing a property's zoning designation. State statute does provide some requirements for zoning regulations in general, which the Planning Commission should be aware of WS §15-1-601(d):

All regulations shall be made in accordance with a comprehensive plan and designed to:

1. Lessen congestion in the streets;
2. Secure safety from fire, panic and other dangers;
3. Promote health and general welfare;
4. Provide adequate light and air;
5. Prevent the overcrowding of land;
6. Avoid undue concentration of population;
7. Facilitate adequate provisions for transportation, water, sewerage, schools, parks and other public requirements.
8. Consider, among other things, the character of the district and its peculiar suitability for particular uses;

9. Conserve the value of buildings and encouraging the most appropriate use of land throughout the city or town; and
10. Consider the historic integrity of certain neighborhoods or districts and preserve, rehabilitate and maintain historic properties, and encourage compatible uses within the neighborhoods or districts.

The Preamble of the City's Zoning Ordinance (Appendix A) states that the purpose of the zoning ordinance is to, "promoting the health, safety, morals and general welfare of the inhabitants of the City of Sheridan by lessening congestion in the streets; securing safety from fire, panic and other dangers providing adequate light and air; preventing the overcrowding of land; avoiding the undue concentration of population, facilitating the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements."

For the PUD Conceptual Plan and Conceptual Design Report (Sheridan City Code Appendix B §801):

A. Be compatible with the goals and policies of the City Master Plan and other applicable adopted plans and policies.

B. Be compatible with the area surrounding the project site, unless there is a natural or man-made buffer separating the adjacent uses.

C. Place no greater demand on existing City facilities and services than can be furnished by the City.

D. Insofar as practicable, preserve landscape in its natural state by minimizing trees and soil removal.

E. Promote the efficient use of land by means of more economical arrangement of buildings/lots, circulation systems, land sues, densities, and utilities.

F. Provide for useable and suitably located open space such as, but not limited to, bicycle paths, playground areas, courtyards, tennis courts, swimming pools, planned gardens, outdoor seating areas, outdoor picnic areas, and similar open space.

G. Demonstrate flexibility and quality in design to permit diversification in the location, type, and uses of structures.

H.Combined and coordinate architectural styles, buildings forms, and building relationships within the development and in concert with adjacent and surrounding land and development.

I. Be designed and controlled as a whole under the control of one (1) owner, partnership, corporation, or agency.

J. Give special attention to vehicular and pedestrian circulation and parking, the location and number of access points to public streets, width of interior drives and access points, general interior circulation, separation of pedestrian and vehicular traffic, and the arrangement of parking areas that are safe and convenient and, insofar as practicable, do not detract from the design of proposed structures and neighboring properties.

Prior to approving the preliminary plat, the Planning Commission will need to make the following findings per Sheridan City Code Appendix B §202:

A. *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.*

B. *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.*

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

D. *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.*

E. *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.*

Background

The applicant, Andy McFaul for Excalibur Construction, Inc., is requesting a future development for the two properties located in the 700 block of Mydland Road, South of West 5th Street (Parcels: 56842830000533, 56842910600233), which would include rezoning of the properties from B-1 and R-1 to a Planned Unit Development (PUD) as well as subdivide the properties from 2 lots to 100 lots, with a land area of 18.55 ± acres.

The subject property consists of two lots in the 700 block of Mydland Road, South of West 5th Street the southwest corner of 5th Street and Mydland Road. The northern lot is a 9.04 acre vacant property that is a lot of record. The property is addressed as 2066 West 5 th Street. The property is zoned B-1 Commercial District. The northern lot has a narrow extension to the northwest providing access on to 5th Street. The lot is accessed to the east on to Mydland Road.

The southern lot is a 9.51 acre vacant lot that is listed as Lot B of the Hidden Bridge Minor Subdivision. The property does not have an address assigned to the property. The property is accessed by Mydland Road to the east. The property is split zoned, a small sliver of the western portion of the lot is zoned B-1 Commercial District, and the rest of the lot is R-1 Residential District.

The surrounding properties are a mixture of vacant properties, a golf course, multi-family, and office uses. The three properties to the north, abutting 5th Street to the north, are a multi-family apartment complex (2 Lots), and an office building (1 Lot) are both zoned B-1. The property to the west is a vacant property zoned B-1. The properties to the east across Myldland Road, are vacant properties zoned B-1, and large lot single-family homes zoned PUD R-3, and part of the Sheridan Links PUD. The properties to the south are vacant zoned R-1.

The property is part of the Cloud Peak Ranch Master Plan. The Cloud Peak Ranch Master Plan outline designates the area of proposed development as G-D (Golf District). Due to the golf course developing to the south, this area was swapped with the R-D (Residential District) in the Master Plan. The R-D parcels designated by the Master Plan prescribe the following:

Parcel R-D

Land Use:	Single-Family Residential
Parcel Size:	37.2 Acres
Max. Density:	186 Units 5 Units per Acre
Min. Lot Size:	4,000 sq. ft.
Open Space:	Open space is required behind each lot.
Parcel Description:	Lots shall be designated to maximize views of the golf course as well as the internal greenbelts. Greenbelts shall be designated to accommodate drainage as well as provide linkages between parts of the neighborhood. Greenbelts should be designated to have as many linkages to the surrounding ROW as practical to encourage pedestrian access. A minimum of 15' of development installed greenbelt shall be located between any private lot and Cloud Peak Parkway as well as Mydland Road.

There is an approximately 30-40 foot grade change from west to east, which comprises a 3% slope on the property. Water flows from the highest point to the west to the lowest point southeast. The current vegetation on the property is native grasses.

An existing 8-inch water main exists at the end of the narrow access strip in the northwest corner of the property.

Proposal

The applicant is proposing a 100 lot subdivision. The total area of the proposed subdivision is 18.55 ± acres, 2.43 acres (105,980 square feet) or 13% of the subdivision (Lots 1, 2, 24, 25, 89, and 100), is proposed as open space.

Hidden Bridge PUD Proposal

Lot	Sq. Ft.	Lot	Sq. Ft.	Lot	Sq. Ft.	Lot	Sq. Ft.
1	***11,591 (OS)***	26	10,800	51	3,360	76	5,100
2	***8,304 (OS)***	27	6,586	52	3,360	77	5,100
3	4,234	28	5,535	53	3,360	78	5,100
4	3,833	29	6,328	54	3,360	79	5,610
5	3,592	30	8,262	55	3,360	80	5,610
6	3,480	31	9,423	56	3,943	81	5,100
7	3,480	32	7,134	57	7,297	82	5,100
8	3,480	33	5,529	58	5,194	83	5,100
9	3,480	34	5,500	59	5,100	84	5,100
10	3,480	35	5,500	60	5,100	85	5,190

11	3,592	36	5,500	61	5,100	86	9,353
12	3,833	37	5,500	62	5,100	87	5,965
13	4,003	38	5,500	63	5,100	88	5,100
14	3,754	39	5,500	64	5,610	***89***	***1,530 (OS)***
15	3,509	40	5,500	65	5,100	90	5,100
16	3,481	41	5,500	66	5,100	91	5,100
17	3,481	42	5,500	67	5,100	92	5,100
18	3,481	43	5,500	68	5,100	93	5,611
19	3,482	44	5,500	69	5,100	94	5,101
20	3,482	45	5,500	70	4,692	95	5,101
21	3,482	46	5,500	71	4,534	96	5,100
22	3,483	47	5,500	72	4,930	97	8,995
23	3,483	48	5,500	73	4,794	98	5,699
24	***20,092 (OS)***	49	17,614	74	5,100	99	7,280
25	***34,178 (OS)***	50	3,780	75	5,100	***100***	***30,285 (OS)***
OS = Open Space						**Avg.**	**5,200 sq. ft.**

The applicant is proposing 2.20 acres (95,894 square feet), or 28% of the subdivision (Lots 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 50, 51, 52, 53, 54, 55, and 56), is proposed to be less than 4,000 square feet. The average lot size for the subdivision is 5,200 square feet. The applicant is proposing a density of 5 units per acre.

The applicant is proposing single-family homes to be consistent with the R-2 Zone District standards, with the following setbacks:

Setback	R-2	**Proposed**
Front	20'	**22'**
Side	5'	**5'**
Side (Corner)	10'	**10'**
Rear	20'	**20'**

Architectural Design

The applicant is proposing three residential home styles. The Ranch style is proposed as a one-story home that is 2,400 square feet with an attached two car garage. This style of home will be constructed on lots 31 to 62 and 64. The minimum lot for these homes is 5,100 square feet.

The NxtGen Ranch style home is similar to the ranch style, except that these homes are larger at 2,600 square feet with an attached two car garage. This style of home will be constructed on lots 74 to 96. The minimum lot area for these homes is 5,350 square feet.

The 2-story style home will be constructed on the remaining lots, lots 4 to 30. The 2-story home will be 2,520 square feet with an attached 2 car garage. The minimum lot area for these homes is 3,360 square feet.

The applicant is also proposing to construct 112 rental storage units in the northwest portion of the property. Each unit will measure 10-feet wide by 18-feet deep. The units will be constructed of earth tan steel.

Street Network
The applicant is proposing a U-shaped street called Excalibur Way for interior circulation of the subdivision, with three streets to run north and south (Knight Street, Lancelot Street, and Camelot Way) to connect to the upper and lower portion of the U-shaped Excalibur Way. The northern and southern terminus of Excalibur Way will connect to Mydland Road. The northern intersection of Excalibur Way will intersect with Mydland Road at Fairway Court. The applicant is proposing a 60 foot right-of-way for all streets throughout the subdivision with 5-foot sidewalk. 6-foot vinyl fencing will be constructed along Mydland Road to provide additional privacy to the residence along Mydland Road.

Water and Sewage
The residential storage units in the northwest corner of the proposed subdivision, will access 5th Street from Excalibur Way via a 24-foot wide gated access road. An 8-inch water main is proposed to be extended from 5th Street via a new 15-foot water main easement that runs in the middle of the access road providing service to the subdivision. Sewer access will utilize a 20-foot easement at the southwest corner of the property that runs between lots 30 and 31 to connect to a future sewer line to the west.

The applicant is proposing to use Lots 24, 49, and 100 as storm water detention areas. The lots are also listed as open space comprising 1.56 acres (67,991 square feet) or 8% of the overall subdivision.

Pedestrian Pathway
In order to comply with the Cloud Peak Ranch 3rd Filing Annexation agreement, the applicant is required to connect to the existing trail system. The applicant is proposing to connect the development to West 5th Street via the 60-foot wide access on the northwest corner of the property. This access in addition to the West 5th Street sidewalk will provide pedestrian access to Black Tooth Park.

Public Comments
Staff has received a number of correspondence via phone, letter, email, etc. from individual property owners and representatives of the adjacent property HOAs. Staff has attached a number of these comments to the staff report. Public concern has been raised about the following:

1.The covenants, restrictions, annexation agreement, and Master Plan that do not allow commercial uses on the property, as well as limit lot size to 9,800 square feet.

2.The capacity of Highland Park Elementary School to handle the capacity of additional students from the subdivision.

3.Traffic generated from the development, and the capacity of Mydland Road to meet the capacity.

4.Decrease of property values from this development on adjacent neighboring properties.

5.That the development meet the R-1 Residential District zoning standards, including a 6,000 square foot lot minimum.

6.Excessive street parking, especially along Mydland Road.

7.The capacity of the water and sewer systems to meet the additional demand and use.

8.Compatibility with surrounding homes and properties.

Staff Comments
Staff review for this project involves the review of the PUD documents regarding the findings the City Council must ultimately make in relation to the Conceptual Plan and Conceptual Design Report (SCC Appendix B §804). Below are those required items with staff commentary:

1. Be compatible with the goals and policies of the City Master Plan and other applicable adopted plans and policies.

Cloud Peak Ranch Master Plan delineates this area as Single-Family Residential with a minimum lot area of 4,000 square feet. Staff feels the lots with areas less than 3,000 square feet do not meet the intent of the Master Plan. However, per Appendix B, Sec. 805.2 of the Sheridan Municipal Code, there are no minimum dimensional requirements for lots in a PUD. Staff recommends that the applicant enlarge the smaller lots along the north boundary.

2. Be compatible with the area surrounding the project site and place no greater demand on existing City facilities and services than can be furnished by the City.

The small lot single-family homes provide on the north of the development provide a nice transition from the apartment complex to the north. The transition from smaller lot homes to larger lot homes provides a natural transition through the development. The mix of home design provided will be similar to the surrounding properties. All of these elements are in harmony with existing uses.

Staff is concerned with the commercial storage use on the northwest corner of the property. Staff feels the design can have a more compatible look as opposed to the more industrial design proposed.

City engineering staff has reviewed the initial engineering information, and believes the City can readily serve this area.

3. Promote the efficient use of land by means of more economical arrangement of buildings/lots, circulation systems, land uses, densities, and utilities.

This is true to the extent of the type of housing being provided, and the natural features preserved.

4. Provide for useable and suitably located open space such as, but not limited to, bicycle paths, playground areas, courtyards, tennis courts, swimming pools, planned gardens, outdoor seating areas, outdoor picnic areas, and similar open space.

As shown in the preliminary plat, the designated open space is being proposed as strictly stormwater detention. This open space constitutes only 13% of the overall development. Per Appendix B, Sec. 805.7 of the Sheridan Municipal Code, each PUD Master Plan shall provide for a minimum amount of park/open space. A minimum of 20% of the gross area of the PUD shall be open space. Public rights-of-way, except that provided solely for pedestrian pathways or trails, shall not count towards required open space.

The proposed trail through the storage units is a shared access with vehicles and not strictly for pedestrians, thus, the proposed trail system cannot be counted towards open space. Further, staff recommends that the proposed open space provide more amenities to the residence including playgrounds, picnic areas, etc.

5. Demonstrate flexibility and quality in design to permit diversification in the location, type, and uses of structures.

The four distinct uses of the PUD certainly meet this criteria by fusing to distinct styles of residential living with open space, recreational areas and commercial uses.

6. Combine and coordinate architectural styles, building forms, and building relationships within

the development and in concert with adjacent and surrounding land and development.

The PUD provides high quality affordable residential homes.

7. Minimize impact on adjacent zoning districts by limiting building heights, providing screening and/or other buffers.

There is adequate spacing from adjacent properties. Building heights have been limited to two stories. The applicant is proposing adequate buffering from Mydland Road by installing 6-foot vinyl fencing. The landscape plan shows trees along the property lines and natural vegetation in order for the development to blend into its natural surrounding and provide additional buffering.

8. Preserve and utilize where possible, existing landscape features and amenities and encourage the harmonious combination of such features with structures and other improvements.

As stated in other section of this report, the Hidden Bridge PUD incorporated the natural vegetation of the area. Additionally, the drainage concept is built around utilizing existing natural drainage features and drainage swales.

9. Be designed and developed as a whole under the control of one (1) owner, partnership, corporation, or agency.

Excalibur Construction, Inc. is the developer and designer of the project.

10. Consist of such a mixture of uses, density, or characteristic or creative design.

As detailed throughout this report and the application materials, this project will mix a variety of uses and densities. While creativity is subjective, the desire to preserve elements of the golf course is admirable.

11. Constitute a buffer zone between existing land uses and existing zones.

This requirement is met as there is adequate spacing from adjacent properties. However, the proposed buffer lots, open space, fencing, and type and style of development all have a mitigating effect on the adjacent neighborhoods.

Attachments:

1. Petition to rezone
2. Preliminary Plat
3. Landscaping Plan
4. HBR Design Report
5. Neighborhood Comments
6. Aerial photo

Attachments

Design Report
PUD landscape plan
preliminary plat
aerial
neighbor letters
petition to rezone



DESIGN REPORT

HIDDEN BRIDGE RANCH

Planned Unit Development ▪ May 2020

DOWL

HIDDEN BRIDGE SUBDIVISION

Design Report

5028.27012.01

Prepared for:

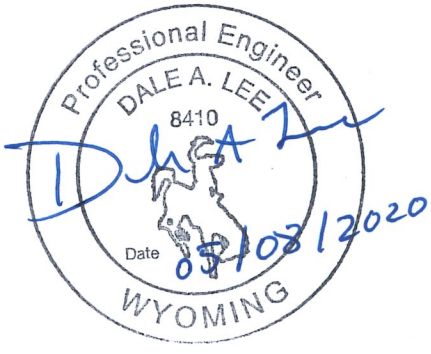
Excalibur Construction Inc.
2275 Dry Ranch Road
Sheridan, WY 82801

Prepared by:

DOWL

16 W 8th Street
Sheridan, WY 82801

May 2020



EXECUTIVE SUMMARY

Hidden Bridge Ranch Planned Unit Development (PUD) is a proposed 95 lot single-family residential subdivision located within the Cloud Peak Ranch Master Plan. Cloud Peak Ranch is a large PUD on the west side of Sheridan established in the 2000's. One of the stated goals in the Cloud Peak Ranch Master Plan was "to provide high quality housing opportunities for residential lots for the development of affordable housing." The goal of the proposed PUD is to provide more affordable housing. The proposed PUD is ideally situated between the golf course and high-density apartments. The golf course provides a buffer between the traditional residential R-1 lots in Cloud Peak Ranch 17th Filing and the proposed PUD serves as a transition from the high-density high-rise apartments to single-family residential lots.

Cloud Peak Ranch Architectural Standards. As the proposed Hidden Bridge Ranch PUD is located within the Cloud Peak Ranch Master Plan boundary, and the proposed PUD will be required to comply with the with the Cloud Peak Ranch architectural standards already in place. This will ensure architectural continuity and uniformity with the surrounding developments. Left is a sample home architecture following the Cloud Peak Ranch Master Plan Standards.



Development Density. Hidden Bridge Ranch single-family lots are larger than the minimum allowed by traditional R-2 zoning. The front set back has been increased from the R-2 zoning minimum of 20', while maintaining the other setback requirements of the R-2 zone. The road alignments and placement of open space creates an efficient use of the site.

Privacy Fencing. Privacy fencing will be installed along Mydland Road in compliance with the Cloud Peak Ranch Master Plan, providing a consistent appearance throughout the Mydland Road corridor. Left is a sample privacy fencing to be constructed. Additionally, lot fencing will be required to comply with the Cloud Peak Ranch architectural standards for fencing.



Road Alignment. The north intersection of Excalibur Way and Mydland Road is aligned with Fair Way Court, per City Code. The south intersection of Excalibur Way and Mydland Road is not required to align with the Mydland Market driveways.

Water Pressure. The proposed development will extend higher pressure 4160' pressure zone south to the golf course. This pressure zone is significantly higher than the pressure zones currently available in the area and will provide at least 88 psi water pressure to the PUD. Additionally, the planned water system improvements will increase capacity and fire flow to the surrounding area.



Traffic. If increased traffic on Sparrow Hawk Road becomes an issue, the City could consider install traffic calming measures, such as speed humps, traffic circles, chicanes, etc. Four-way stops should not be used to calm traffic. Therefore, consideration should be given before placing stop signs

on Mydland, Dome Drive and Sparrow Hawk Road to deter traffic. Traffic calming measures will encourage drivers to use 5th Street, which is classified as an arterial street. However, traffic calming devices should be used with caution and should not be placed on streets design to function as high-mobility roadways.

Traffic generated by this development will not warrant installing traffic signals at these intersections and will be controlled by stop signs on Mydland Road.

Schools. The proposed PUD is located approximately ½ mile from Highland Elementary and ¾ of mile from Sagebrush Elementary. This proximity to two of Sheridan's Blue Ribbon elementary schools will give School District #2 flexibility to redistrict boundaries and balance student load between the schools as this area grows and housing in this area is developed.

Open Space and Natural Features. The proposed PUD infrastructure improvements are designed to minimize impact to the existing natural features of the site, such as the cattail area created by an active irrigation system. This area is a natural bird habit and will be maintained after the development has been completed. The development will have three natural areas dedicated as open space that will maintain this natural resource. The largest open space will be landscaped with grass and trees and can function as a natural gathering point for the residence of the development for picnics, outdoor seating or other uses. The grass and landscaping will be maintained by the HOA.



Drainage. Proposed infrastructure improvements are designed to manage stormwater through the proposed development while retaining excess stormwater above historical flows and minimizing the potential for downstream impacts. Numerous developments have occurred within the contributing drainage basin both above and below the proposed development since the original stormwater detention facility was constructed on the site: Mydland Market, Sheridan Links PUD, and Black Tooth Park. In 2009, the County Club Expansion limited runoff to 10 cfs with a detention pond and outfall structure located in the south east corner of the development, next to Mydland Road. This PUD will also limit flow exiting the site to 10 cfs during the 100-year event.

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Appendix 4: Geotechnical Report

Appendix 5: FEMA FIRM Map

Appendix 6: Stormwater Calculations

1.0 INTRODUCTION

Hidden Bridge Ranch is a proposed 18.75-acre planned unit development located along the west side of Mydland Road in the 500 block as shown in Figure 1 and detailed in the accompanying PUD Layout Plan. The proposed subdivision consists of 95 single family home lots and one commercial lot for rental storage units. The developer, Excalibur Construction Inc., will function as the developer, realtor, and home builder.

1.1 Site Background

The property to be subdivided consists of the ±9.51-acre Lot B of the Hidden Bridge Minor Subdivision and the ±9.24-acre tract of land adjacent to the north. Lot B of the Hidden Bridge Minor Subdivision is currently zone R-1 Residence District and B-1 Business District, whereas the other parcel is zoned B-1 Business District. Both properties are currently used for agricultural purposes.

The Hidden Bridge Golf Course abuts the property along the south boundary. A large vacant lot is adjacent to the west boundary. A senior living facility, multi-story apartment complex, and the Wyoming Department of Environmental Quality office building are located along the north boundary. A vacant lot, grill and commercial coffee shop/liquor store are across Mydland Road to the east. The surrounding properties are zoned R-1 Residence District and B-1 Business District.

1.2 Proposed Uses

The proposed PUD will have land uses similar to those land uses described in the City of Sheridan Zoning Code as R-2 Residence District for the residential lots and B-1 Business District for the rental storage unit lot. It is the intent of the developer to maintain ownership of the rental storage units lot.

1.2.1 Area and Height Restrictions

As part of the sales contract, the developer agreed to comply with the Hidden Bridge Ranch Architectural Control Handbook with Design Guidelines. The proposed PUD will have the following building restrictions:

Set Backs	***Residential***	***Storage Units***
Front Yard	22’	0’
Side Yard	5’	0’
Rear Yard	20’	0’
Building Height	35’	35’



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HIDDEN BRIDGE RANCH PUD
DESIGN REPORT
VICINITY MAP

PROJECT	5028.27012.01
DATE	05/07/2020

FIGURE #1

Q:\28\27012-01\65CAD\Civil\SA-CT-EH-27012.dwg PLOT DATE 2020-5-7 13:07 SAVED DATE 2020-05-06 14:21 USER: dlee

1.3 Responsible Party

The proposed site is owned by Excalibur Construction and the owner will be responsible for construction and maintenance of physical improvements included streets, utilities, storm drainage systems, sings, sidewalks, and landscaping.

Excalibur will also be the home builder for the site. Three model homes will be constructed on lots 2, 3 and 4. Lot 1 will be utilized as a parking lot and the model home on Lot 2 will function as an office. Once the development nears capacity, the model homes will be sold, and Lot 1 will have a new home constructed.

1.4 Proposed Schedule

The proposed construction schedule is to commence construction of the infrastructure improvements in the spring/summer of 2020 with completion in the infrastructure in the fall of 2020.

1.5 PUD Objective

The objective of the PUD is to subdivide the 18.75 acres property to create an efficient and consistent land use, while supplying the community with newly constructed homes for the $300,000 market.

1.6 Architectural Theme

As part of the sales agreement between the developer and former site owner, Excalibur agreed to comply with the Hidden Bridge Ranch Architectural Control Handbook with Design Guidelines, where was established as part of the 2013 Hidden Bridge Minor Subdivision. The architectural theme of the proposed PUD will be compliant with the Hidden Bridge Ranch Architectural Control Handbook with Design Guidelines. These new homes will be consistent with the surrounding Hidden Bridge neighborhoods. A copy of the Hidden Bridge Ranch Architectural Control Handbook with Design Guidelines is presented in Appendix 1.

Excalibur intends to build three modern residential home styles within the proposed PUD, two ranch styles and a 2-story style. Ranch houses are traditionally one-story homes with an overall simplistic design. Features typically included are low, straight rooflines or shallow-pitched hip roofs, an attached garage, brick or vinyl siding, and a porch. The 2-Story homes will have a similar exterior looks of the ranch style homes, with a smaller footprint. Renderings of the proposed homes are included in Appendix 2.

The 2-Story homes will be located on the north and east perimeter of the development as to not impact the viewshed for the development. The low-profile ranch style homes will be located along the south and west for unobstructed view of the Big Horn Mountains.

1.6.1 Ranch Style Home

A total of 45 lots have been dedicated to the Ranch style home, lots 31 to 62 and 64 to 73. These 2,400 square feet, three-bedroom homes measure 40’ wide by 60’ deep with an attached 2 car garage. The minimum lot area for these homes is 5,100 square feet.

1.6.2 NxtGen Ranch Style Home

Similar to the Ranch style, NxtGen homes are larger at 2,600 square feet with four-bedrooms, and a footprint that measures 40' wide by 65' deep and includes an attached 2 car garage. They will be located on the 23 lots along the south boundary (lots 74 to 96). The minimum lot area for these homes is 5,350 square feet.

1.6.3 2-Story Style Home

The remaining 27 residential lots have been dedicated for the 2-story style home. These homes will be built along the north property boundary in lots 4 to 23 and lots 24 to 30 along Mydland Road. These 2,520 square feet, 3- and 4-bedroom homes measure 30' wide by 42' feet deep with an attached 2 car garage. The minimum lot area for these homes is 3,360 square feet.

1.6.4 Rental Storage Units

Excalibur intends to construct 112 rental storage units. Each unit will measure 10' wide by 18' deep. The units will be constructed of tan earth tone steel. Rendering of the proposed rental units is included in Appendix 2.

1.7 Density

The 18.75-acre development will have 95 residential lots, one rental storage unit lot and three open space lots. The overall residential density of the proposed development is 5,310 square feet per lot.

Land Use	***Area (square feet)***	***Percentage (%)***
95 Residential Lots	504,470	61.77
Rental Storage Unit	34,186	4.19
Open Space	67,981	8.32
Right of Way	210,113	25.73

Since Lot B was part of the Hidden Bridge Minor Subdivision and the other tract was part of the 8th and 9th Filing of Cloud Peak Ranch, it is anticipated that open space requirements for this development have been met.

1.8 Parking

Each style of home will have an attached 2 car garage and up to 2 additional off-street parking spaces in the driveway. Additional on-street parking will be available on the 36-foot-wide streets.

1.9 Cloud Peak Ranch Master Plan

Hidden Bridge Ranch PUD is located within the Cloud Peak Ranch Master Plan. In 2008, the Cloud Peak Ranch Outline Development Plan was published to provided development objectives and standards for development within the Cloud Peak Ranch subdivision. This guide outlined standards for landscaping, fencing, pathways, internal roads, and existing collector streets.

1.9.1 Streets and Sidewalks

Proposed roads in the subdivision are classified as low volume local streets. Each will measure 36' from back of curb to back of curb and be centered within a 60' wide right-of-way. Sidewalks will be 5' wide concrete and attached to the back of curb. Sheet 5 of the 2008 Cloud Peak Ranch Outline Development Plan, Appendix 1, presents acceptable street designs within the Cloud Peak Ranch subdivision. The proposed streets and right-of-way design comply with the Local w/ Attached Sidewalk detail on Sheet 5. All streets and right-of-way will be dedicated to the City of Sheridan.

Meandering sidewalk is not included within the proposed design. The 2008 Cloud Peak Ranch Outline Development Plan requires meandering sidewalk on the arterial streets, such as West 5th Street. Sidewalk has already been constructed along the portion of West 5th Street that abuts the property. Attached sidewalk is proposed for Mydland Road. There is not adequate space between the existing curb and property line to construct a meandering sidewalk. Additionally, there is no existing sidewalk along the west side of Mydland for the new sidewalk to connect.

1.9.2 Pathways and Trail System

The City of Sheridan and Mr. Don Roberts signed a letter agreement on August 1, 2013, in conjunction with the Cloud Peak Ranch 3rd Filing Annexation Area. The agreement included Easement 2013-706811 that was filed on August 7, 2013. Exhibit C of the filed easement outlines the proposed West Beltway and pathway trail system enhancements through the Cloud Peak Ranch development. As the pathways shown on Exhibit C are outside this proposed development, no additional pathways are included with this development. Additionally, the most direct route to Black Tooth Park would bisect Lot C of the Hidden Bridge Minor Subdivision. Residences of this development will have walking access to West 5th Street and Black Tooth Park via the rental storage unit driveway. A copy of the easement is included in Appendix 3.

1.9.3 Fencing

A new fence will be constructed along Mydland Road that complies with the 2008 Cloud Peak Ranch Outline Development Plan and the Hidden Bridge Ranch Architectural Control Handbook with Design Guidelines.

2.0 SEWER COLLECTION SYSTEM IMPROVEMENTS

Presented on the attached master plan is the proposed sanitary sewer configuration. The proposed design includes a proposed new sewer main to be constructed by the City from Black Tooth Park to Mydland Road. The proposed subdivision improvements will connect to that new sewer main.

2.1 Black Tooth Sanitary Sewer Project

It is our understanding that the City of Sheridan intends to construct a new sewer main between Black Tooth Park and Mydland Road, through the proposed subdivision. The new sewer main will provide service to the park. The attached Master Plan shows a proposed routing through the subdivision and connection to an existing manhole on the east side of Mydland Road. The invert elevation of the existing 10" PVC sewer main is 11.18 feet below the rim.

As this sewer main has not be designed, permitted or constructed, for the purposes of the this report it will be assumed that the proposed sewer main to Black Tooth Park is existing.

2.2 Existing Sanitary Sewer System

The proposed subdivision has access to the City of Sheridan sewage collection system. A 10" PVC sewer main is located on the east side of Mydland Road and a termination manhole is located near the southeast corner of the property. The existing sewer main flows north east towards 5th Street.

2.3 Proposed Sanitary Sewer Improvements

The proposed sanitary sewer improvements are shown on the Master Plan. The proposed improvements will consist of 2,040 LF of 8" PVC sanitary sewer main and 6 concrete manholes. In general, the new sewer mains will flow south to the Black Tooth sewer main. When complete, the improvements will be dedicated to the City of Sheridan.

2.4 Design Criteria

Design wastewater flow generated by the proposed development was calculated using WDEQ minimums, 2017 Edition of the City of Sheridan *Public Infrastructure Design Standards,* and actual wastewater treatment plant data.

The proposed development has mixed uses, residential and retail, each requiring separate wastewater flow calculation methodology. Using the design criterial presented in Section 401 of the Infrastructure Design Standards and an average daily per capita flow of 100 gallons per day, design flows were calculated and presented on Table 1.

Table 1: Sewage Design Flow Estimates

Use	*Lots*	*Equivalent Population (persons/lot)*	*Average Day (GPD)*	*Peak Day (GPD)*	*Peak Hour (GPM)*
Residential	95	2.2	20,900	50,787	96.6

Peaking Factors:
Average Day to Peak Day: 2.43
Peak Day to Peak Hour: 2.74

An 8-inch PVC sewer laid at the WDEQ minimum slope of 0.4% has a full flowing capacity of 372 gallons per minute. Chapter 12, Section 9(c)(i)(B) of the WDEQ regulations require the main to be sized for 200 percent of maximum daily flow, or 186 gpm for the 8-inch sewer above. The proposed subdivision has a peak hour flow of 96.6 gpm, so an 8-inch sewer main will have more than adequate capacity for the proposed subdivision.

2.5 Sanitary Sewer System Components and Materials

Project specifications for sewer main and service construction are the City of Sheridan Standard Specifications for Street and Utility Construction, 2016 edition. The proposed sanitary sewer will be installed via open trenching methods. Pipe material will be 8-inch SDR 35 PVC.

3.0 WATER DISTRIBUTION SYSTEM IMPROVEMENTS

3.1 Existing Water Distribution System

This area of Sheridan has three water pressure water zones available and adjacent to the property, see attached pressure zone figure. The 4160' pressure zone is located on the NW corner of the property. The 12-inch pipe from the 4090' pressure zone is located on the west side of Mydland Road near the SE corner of the property. The 4040' zone is located along the south side of West 5th Street, the east side of Mydland Road and near the SE side of the property in a 24-inch DIP pipe.

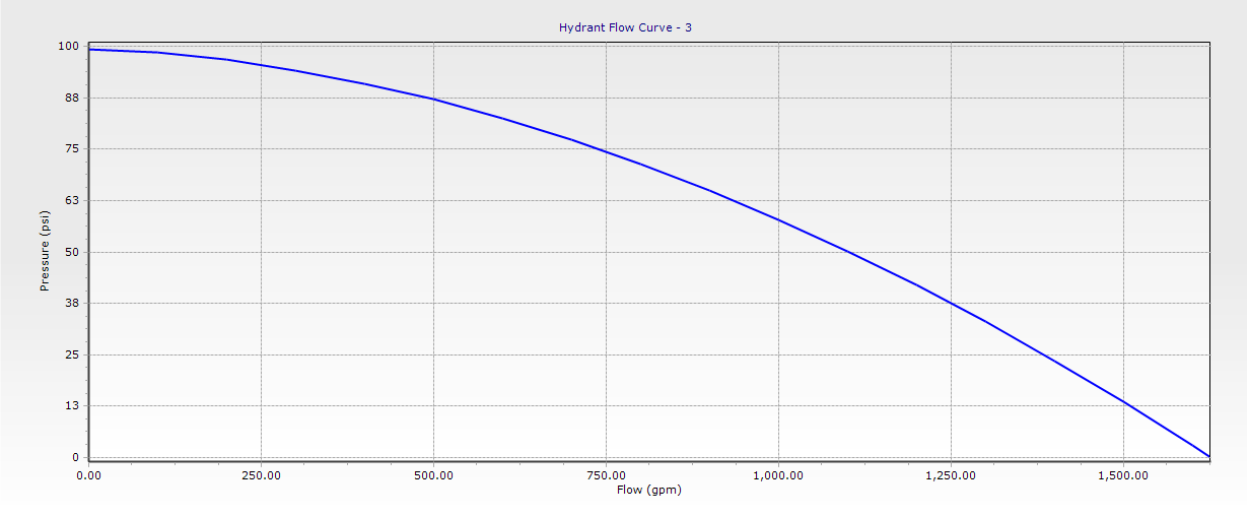
3.1.1 Existing System Pressure

The elevations of this property range from a low of around 3920 feet, to a high elevation of 3956 feet. Static pressures from the three zones are as follows:

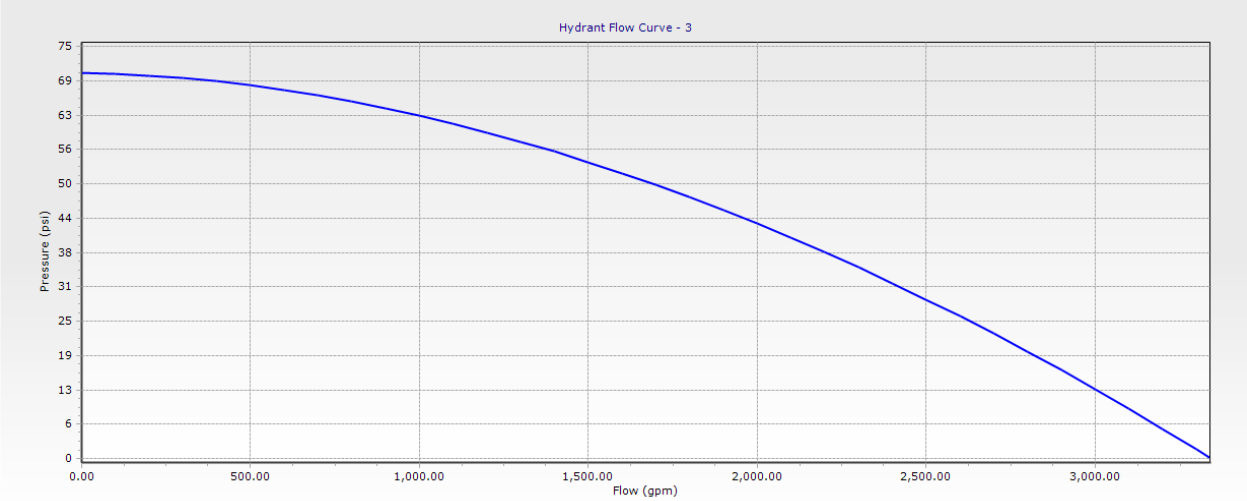
Zone	Pressure at High El.	Pressure at Low El.
4160	88	104
4090	58	74
4040	36	52

Serving the subdivision from the 4040 zone will not be feasible, as the pressures on the higher end of the subdivision will be too low. Therefore, we propose to serve this subdivision with an 8-inch main loop connected directly to the 4160 north connection point as shown on the attached PUD Layout Plan. There will likely be two 6-inch legs in between the 8-inch loop. The southern connection point is proposed to be connected to the 4090 zone with a check valve that will allow one-way flow from the 4090 to 4160 zone in the event that the 4160 connection is out of service or an extreme fire flow scenario. This will be modeled and documented in a design report, which will be submitted at the time of the permit to construct application, but some basic information is as follows:

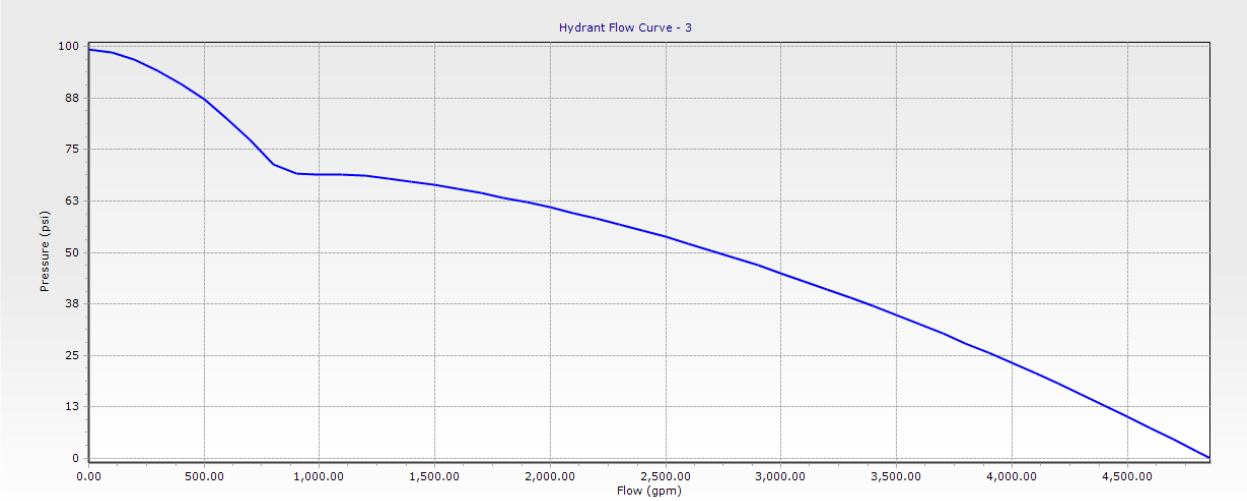
The available flow and pressure in the middle of the subdivision if served from the 4160 zone without the south connection and check valve:



The available flow and pressure in the middle of the subdivision if served from only the 4090 zone:



The available flow and pressure in the middle of the subdivision if served from the 4160 plus the 4090 zone through a check valve:



The three graphs above show that although the subdivision will have better pressure being served from the 4160 zone, to get a complete residential fire flow of 1500 gpm, the southern connection to the 4090 zone will be needed. The graphs also show that there isn't much value in installing a PRV from the 4160 to the 4090 zone.

The 4090 zone can supply adequate pressure and flow to this development. However, there isn't a good way to loop this subdivision back into the 4090 zone. Also, connecting the 4090 zone to the 4160 zone with a check valve will greatly improve the available fire flows on 5th Street, which is an improvement to the water system.

3.2 Proposed Water Distribution System

Proposed water distribution system improvements are presented in attached Master Plan Map. An 8-inch PVC water main will be looped around the proposed subdivision, starting at an existing 8-inch PVC water main on West 5th Street. This main will supply 4160' pressure zone water to the subdivision. Water service on two internal streets will be provided via 6-inch PVC water mains connected to the 8-inch main loop. . This configuration will have adequate pressure to supply the

subdivision under all operating scenarios, except fire flow. To meet the extra fire flow demand, or if the connection to the 4160' pressure zone is out of service, a second connection to the City distribution system will be made near the southeast corner of the property. The southern connection point is proposed to be connected to the 4090 zone with a check valve that will allow one-way flow from the 4090' to 4160' zone.

3.3 Design Criteria

Design water demand from the proposed development was calculated using WDEQ minimums and 2017 Edition of the City of Sheridan Public Infrastructure Design Standards..

Using the design criterial presented in Section 401 of the Infrastructure Design Standards and an average daily per capita flow of 210 gallons per day, design flows were calculated and presented on Table 2. Peaking factors of 2.65 and 4.2 were utilized to calculate peak day and peak hour, respectively.

Table 2: Water Demand Design Estimates

Use	*Lots*	*Equivalent Population (persons/lot)*	*Average Day (GPD)*	*Peak Day (GPD)*	*Peak Hour (GPM)*
Residential	95	2.7	53,865	142,742	157

Effects of these demands on the existing water system, as well as the ability of the proposed improvements to accommodate the demands of this subdivision, will be presented in a design report to be submitted with a permit to construct application as part of the final plat application process.

4.0 GEOTECHNICAL INVESTIGATION

4.1 Introduction

A geotechnical investigation of the site was conducted by American Engineering Testing (Sheridan, WY). The purpose of the investigation is to identify subsurface issues that may impact the project and present road section recommendations. The investigation consisted of field collection of subsurface soil samples and laboratory analysis of the collected samples. Test boreholes were constructed on March 31 and April 1, 2020.

The complete geotechnical report is included in Appendix 4. Presented below is a summary of the findings.

4.2 Summary of Findings

Underlying a thin layer of topsoil, ranging in thickness from 3 inches to 12 inches, the site soils consisted of alluvial deposits underlain by the Fort Union Formation. The alluvial site soils ranged in thickness up to 28 feet, and consisted of lean to fat clay, sands, and gravels. Cobble and boulder sized material was also encountered during drilling, primarily in the sand and gravel layers. The soils encountered in the Fort Union Formation consisted mainly of claystone, weathered claystone, silty/clayey sand and lean to fat clay. Lignite was encountered within the Fort Union Formation at depth.

5.0 PRELIMINARY TRAFFIC DATA

5.1 Trip Generation and Design Volumes

Traffic volumes generated by the proposed PUD were calculated using Institute of Transportation Engineers (ITE) methodology. The number of weekday, AM peak hour, PM peak hour, and weekend site generated trips were estimated based on rates provided in the Institute of Transportation Engineers Trip Generation Manual, 9th Edition. Assumptions regarding entering/exiting traffic were also based on information from the ITE Trip Generation Manual.

For the trip generation calculations, a single-family detached housing use (ITE code 210) was assumed for the proposed residential lots. ITE land use code 210 is defined as single-family detached homes on individual lots, typical of a suburban subdivision.

ITE Code 151 (Mini-Warehouse) was used for the proposed leased retail storage units. ITE Code 151 land use code is defined as buildings in which a number of storage units or vaults are rented for the storage of goods, typically referred to as "self-storage" facilities. Vehicle trips generated are based upon total number of units available for rent. Table 3 shows the estimated trip generation traffic for the proposed development.

Table 3: Trip Generation Calculations

ITE Code	*Land Use*	*Quantity*	*Analysis Period*	*Trip Rate*	*Total Trips*	*% Entering*	*% Exiting*	*Trips Entering*	*Trips Exiting*
210	Single-Family housing	95 Lots	Weekday	9.52	904	50%	50%	452	452
			AM Peak Hour	0.77	73	26%	74%	19	54
			PM Peak Hour	1.02	97	64%	36%	62	35
			Saturday	9.91	942	50%	50%	471	471
			Saturday Peak Hour	0.93	88	54%	46%	48	40
			Sunday	8.62	820	50%	50%	410	410
			Sunday Peak Hour	0.86	82	53%	47%	44	38
151	Mini-Warehouse	112 Units	Weekday	0.25	28	50%	50%	14	14
			AM Peak Hour	0.03	3	60%	40%	2	1
			PM Peak Hour	0.03	3	47%	53%	1	2
			Saturday	0.22	24	50%	50%	12	12
			Saturday Peak Hour	0.04	4	50%	50%	2	2
			Sunday	0.15	16	50%	50%	8	8
			Sunday Peak Hour	0.03	3	--	--	--	--
Total			**Weekday**		**932**			**466**	**466**
			AM Peak Hour		**76**			**21**	**55**
			PM Peak Hour		**100**			**63**	**37**
			Saturday		**966**			**483**	**483**
			Saturday Peak Hour		**92**			**50**	**42**
			Sunday		**836**			**418**	**418**
			Sunday Peak Hour		**85**			**44**	**38**

Note: Rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition.

Based on ITE trip generation calculations, the peak hourly traffic was estimated at 100 vehicles per hour with 63 entering and 37 exiting.

5.1.1 Trip Distribution and Assignments

This traffic would be divided between three access points, two on Mydland Road and one on West 5th Street. The two Mydland Road access points would be stop sign controlled. It is anticipated that 60% of the traffic would utilize the north Excalibur Way access point and 40% would utilize the south Excalibur Way access point. As the access to the storage units will be through keyed entry gates, through traffic is not anticipated from the development to West 5th Street.

Trip distribution percentages for the development are based on assumed travel patterns to and from the proposed development. Assumptions regarding entering/exiting traffic for the proposed development are based on the expectation that the projected traffic volumes at each access will correspond to the proposed site layout.

5.1.2 Fire Apparatus Access Road

Section D107.1 of the 2018 International Fire Code states that two fire apparatus access roads shall be provided when the development's total number of one or two-family residential dwellings exceeds 30. Section D107.2 requires that the access roads shall be placed a distance apart equal to, not less than, one-half of the length of the maximum overall diagonal dimension of the property, measured in a straight line between accesses. The length of the maximum overall diagonal dimension of the property is 1,641 feet. The required separation of access roads is 820.5 feet. The property width is only 700 feet. Therefore, it is not possible to meet Section D107.2.

As an alternative, the rental storage unit driveway could be used as an additional emergency access to the subdivision. A 24' paved access driveway will extend from West 5th into the proposed subdivision. Access would be controlled by electronic keycode gates at both ends. The Sheridan Fire Department and EMS would be provided a code to access the gates at any time. The paved driveway has adequate width for fire apparatus access, even if a vehicle is parked in front of a rental storage unit.

6.0 PRELIMINARY DRAINAGE

6.1 Background

There have been several hydrology investigations of the project area with The Cloud Peak Development, County Club Expansion and Mydland Market. The Sheridan County Club Expansion in 2009 resulted in the construction of a detention pond with an outlet control structure in the southeast corner of the development in Lot 49, see the PUD Layout Plan. The detention pond storage extends onto the Hidden Bridge Golf Course.

Numerous changes have occurred within the contributing drainage basin both above and below the proposed development since the 2009 County Club Expansion hydrology investigation, including the construction of Heritage Senior Living, Peak Apartments, Black Tooth Park, Mydland Market, and Sheridan Links PUD.

6.2 Surrounding Developments

The proposed subdivision is currently used for agricultural purposes. The Hidden Bridge Golf Course abuts the property along the south boundary. A large vacant lot is adjacent to the west boundary. A senior living facility, multi-story apartment complex, and the Wyoming Department of Environmental Quality office building are located along the north boundary. A vacant lot, restaurant and commercial coffee shop/liquor store are across Mydland road to the east.

6.3 Floodplains

The subject site is located on the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) numbers 56033C, Panel 0761E. The proposed project is located outside of a FEMA defined floodplain, see Appendix 5.

6.4 Methodology

This report was prepared in accordance with the criteria established in the City of Sheridan Storm Drainage Criteria Manual dated August 2016. Per the City Drainage Manual, minor and major storm occurrence intervals for a general commercial development are 24 hour, 5-year and 100-year events, respectively. Precipitation Depth-Duration for the respective storms can be found on Table 4.3 of the Drainage Manual. Given the size of the drainage basins, Soil Conservation Service (SCS) Hydrograph methodology was utilized to evaluate peak flows for the proposed development. A weighted SCS curve number was utilized in the calculations. The detention basin was designed using the criteria details in Chapter 8 of the Federal Highway Administration Hydraulic Engineering Circular (HEC) No 22, Third Edition.

6.5 Previous Drainage Studies

In 2009, the Sheridan County Club expanded the golf course on the west side of Mydland Road. As part of the expansion, a drainage investigation was conducted that encompassed the proposed PUD site. The May 27, 2009 investigation was prepared by Northern Engineering (Fort Collins, CO). While some of the grading and drainage features discussed in the report were constructed, several significant improvements were not constructed. A detention pond was constructed in the southeast corner of the PUD, in Lot 49. A concrete outlet control structure was designed and constructed to limit outflow to 10 cfs during the 100-year event. The outlet control structure was

installed per the 2009 Sheridan Country Club Expansion hydrology report, but the driving range that was supposed to formed the pond was not constructed. Lake Ermal was part of the 2009 investigation and was designed to be a lake without a spillway. It has since been altered from the 2009 investigation by the construction of an emergency spillway that is routed into the main drainage basin of the PUD. This modification significantly increases the contributing drainage area above the proposed PUD. Lake Ermal is located south of Black Tooth Park. Also, it should be noted that the flow restrictor plates have been removed from outlet control structure located in Lot 49.

6.6 Historic Drainage System

The historical drainage system is presented in Figure 2. The primary basin, E1, consists of a mixture of land uses including agricultural, parks and a golf course. The boundary was approximated in areas as the contours available are from 2007, prior to the Country Club Expansion and Black Tooth Park construction. Generally, stormwater sheet flows to several drainage ditches that meander in an easterly and southeasterly direction to Design Point A. This is the location of the original pond and outlet control structure. Flows from the outlet control structure pass under Mydland Road in two 2'x8' concrete structures and then take a 90 degree turn at the north property boundary of the Sheridan Links PUD. The ditch continues south and then turns again 90 degrees east in Tract 8 of the Sheridan Links PUD and then flows into the water feature in Block 2 of the Sheridan Links PUD.

Historical basin E2 was created when the golf course expansion was not completed. Design Point 2 is a 24" CMP culvert with flared ends that flows east under Mydland Road into an open field. A dilapidated inlet with a 12" CMP culvert that appears to flow northeast towards a pond is located in this field, see below. Basin E3 consists of flow from a senior living facility, multi-story apartment complex, and the Wyoming Department of Environmental Quality office building. This flow is controlled with a detention pond and outlet control structure,designated Design Point 3. The flow passes east under Mydland Road, where it flows into a culvert that appears to be flowing east.



Inlet Structure.



LEGEND:

- 1 — DESIGN POINT
- E1 / 7.52 — BASIN IDENTIFIER / BASIN AREA (ACRES)
- PROPERTY LINE
- DRAINAGE BASIN BOUNDARY
- DRAINAGE FLOW

NOTES:
THE CONTOURS (2007) AND IMAGERY (2019) DO NOT ACCURATLY REFLECT THE CONDITIONS AT THE TIME OF THE REPORT.

DESIGN POINT	5-YEAR Q (CFS)	100-YEAR Q (CFS)	DESCRIPTION
1	23.3	72.7	Existing Detention Outfall
2	1.3	3.8	18" RCP W/FE
3	18.9	43.8	18" RCP W/FE

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HIDDEN BRIDGE RANCH PUD
PUD DESIGN REPORT
PRE-DEVELOPMENT CONDITIONS

PROJECT 5028.27012.01
DATE 04/27/2020

FIGURE #2

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6.6.1 Irrigation

An existing irrigation ditch flows east along the southside of 5th Street then turns southeast into Basin E1, approximately 150' east of the Black Tooth Park entrance. Irrigation water flows through the proposed PUD in both a ditch and culvert and eventually under Mydland Road through the box culverts. In conversations with Morrison-Maierle (Sheridan, WY), this ditch is active and flows to the pond located in the Sheridan Links PUD, where it is pumped west back across Mydland Road to irrigate Hidden Bridge Golf Course.

A drainage investigation for the Mydland Market development, dated May 28, 2019, investigated the capacity of irrigation ditch. In the report, it was estimated that approximately 14 cfs of irrigation water flows through the irrigation ditch. For this report, it has been assumed that the irrigation ditch is operating during the precipitation events. Most of the ditch is located high in the drainage basin and does not intercept a significant amount of runoff.

Irrigation ditch flow will be maintained through the PUD by the installation of 36" diameter culverts at the two road crossings of the ditch and the construction of a 36" diameter stormsewer system that will convey irrigation and stormwater through the PUD to the existing detention pond in the southeast corner of the development.

6.7 Developed Drainage System

The objective of this drainage study is to determine the impact to the historical drainage flows created by the proposed improvements and propose a design that will limit stormwater flows to pre-development conditions. As the proposed improvements will result in more than 5,000 square feet of additional impervious area, per Section 7 of the City of Sheridan Drainage Manual, detention or retention storage will be required as part of the stormwater management strategy.

The proposed drainage plan is presented in figures 4 and 5. Most of the site will be graded to sheet flow to the streets and existing drainage channels. The curb and gutters flow towards the southeast corner of the development, where a curb break will allow stormwater to flow into the existing detention pond. Properties that abut the boundary will flow into existing drainage channels. The two detention ponds will limit flows exiting Design Point 1, the existing outlet structure, to 10 cfs.

6.8 Stormwater Estimates

The developed and undeveloped runoff summary is presented on Table 4. The calculated increase in drainage flow between existing and developed conditions is 11 cfs during the 5-year event and 18.8 cfs during the 100-year event. Also shown are estimates for the 2-year and 10-year as required by Section 7 of the Drainage Manual. Calculations are presented in Appendix 6.



LEGEND:

- 1 — DESIGN POINT
- E1 / 7.52 — BASIN IDENTIFIER / BASIN AREA (ACRES)
- PROPERTY LINE
- DRAINAGE BASIN BOUNDARY
- DRAINAGE FLOW

NOTES:
THE CONTOURS (2007) AND IMAGERY (2019) DO NOT ACCURATLY REFLECT THE CONDITIONS AT THE TIME OF THE REPORT.

DESIGN POINT	5-YEAR Q (CFS)	100-YEAR Q (CFS)	DESCRIPTION
1	30.3	86.1	Existing Detention Outfall
2	0.0	0.0	18" RCP W/FE - TO BE REMOVED
3	24.3	53.0	18" RCP W/FE

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FIGURE #3

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LEGEND:

- 1 — DESIGN POINT
- E1 / 7.52 — BASIN IDENTIFIER / BASIN AREA (ACRES)
- PROPERTY LINE
- DRAINAGE BASIN BOUNDARY
- DRAINAGE FLOW

NOTES:
THE CONTOURS (2007) AND IMAGERY (2019) DO NOT ACCURATLY REFLECT THE CONDITIONS AT THE TIME OF THE REPORT.

DESIGN POINT	100-YEAR Q (CFS)	DESCRIPTION
SBn	25.0	Cross Pan
SBs	5.7	Catch Basin Inlet

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FIGURE #4

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Table 4: Stormwater Flow Summary

	Storm Event Reoccurrence Interval			
Basin	**2-Year**	**5-Year**	**10-Year**	**100-Year**
Pre-Development				
E1	11.6	23.3	32.6	72.7
E2	0.7	1.3	1.8	3.8
E3	12.1	18.9	23.8	43.8
Irrigation	14.0	14.0	14.0	14.0
Total:	**38.5**	**58.5**	**72.3**	**134.3**
Post-Development				
D1	16.3	30.3	41.0	86.1
D2	16.2	24.3	30.1	53.0
Irrigation	14.0	14.0	14.0	14.0
Total:	**46.6**	**68.6**	**85.1**	**153.1**

6.8.1 Stormwater Detention

The required stormwater detention was calculated using Chapter 8 of HEC-22 Manual methodology. The 2009 County Club Expansion hydrology investigation and construction project limited 100-year discharge from the outlet structure, Design Point 1, to 10 cfs. The Mydland Market investigation also used this value. Therefore, this flow will be maintained by the proposed PUD development. The calculated storage requirement to maintain 10 cfs outflow is 81,755 cubic feet for the 100-year storm, see Appendix 6. The existing detention area shown on Figure 3 has a capacity of 53,300 cubic feet and the new proposed detention area has a capacity of 45,000 cubic feet. The site will have a total of 98,000 cubic feet of storage. The flow restrictor plates will be reinstalled on outlet control structure located at Design Point 1.

6.9 Curb and Gutter

Within the proposed subdivision, a variance is requested to the City of Sheridan standard Type "A" curb and gutter is being requested. Low profile mountable curb and gutter see Figure 6, will eliminate the need for residential driveway approaches while maintaining required stormwater flows. Examples of this type of curb and gutter are shown below.



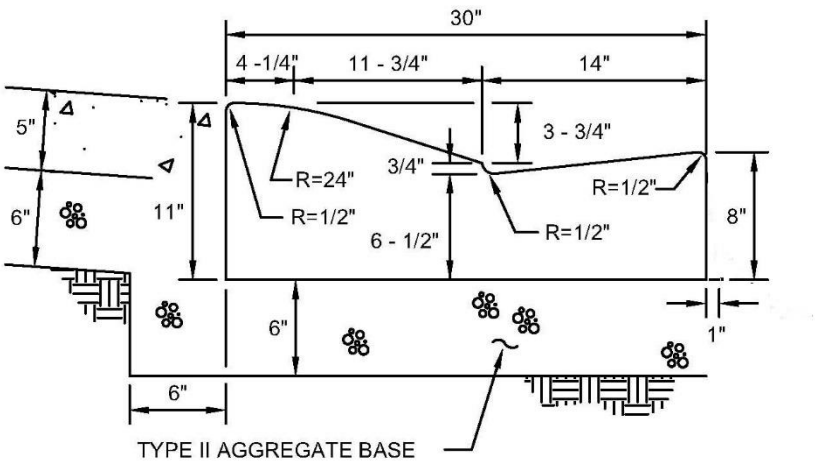


Figure 6 Alternative Curb Design

The alternative curb design has a reduced curb flow capacity. Section 6.2.1 of the city of Sheridan Storm Drainage Manual requires that gutter flow encroachment and hydraulics be evaluated using the methods presented in Section 4.3 in HEC-22 Manual. The critical subbasin design points are are located on the southern intersection of Excalibur Way and Camelot Street, shown on Figure 4 as SBn and SBs. The Drainage Manual requires no curb overtopping during a minor storm with flow spread to the crown and a maximum depth of 18" during the major storm event. The calculated capacity of the alternative curb design at the two design points is 12.76 cfs, based on a street slope of 1%, comparted to a standard Type A capacity of 14.15 cfs. The calculated flows are presented below.

	Minor Storm – 2 Yr.	***Major Storm – 100 Yr.***
Design Point SBn	7.7	25
Design Point SBs	1.7	5.7

As shown above, both gutter designs will maintain flows within the gutter. The Design Point SBs is located in a low point where a catch basin will be installed. The catch basin will discharge to the stormwater detention pond adjacent to the south. During a major storm event, stormwater will overtop the curb and flow directly into the stormwater detention basin. Flows will not be able to exceed 18" above the gutter. If the pond fills to capacity, stormwater will overtop the embankment and flow into the two 2' x 8' box culverts.

6.10 Study Limitations

This report evaluated the increased peak flow rate attributed to the proposed improvements using the Rational Method and Soil Conservation Service methodology. The analysis was conducted using criteria from the City of Sheridan Storm Drainage Criteria Manual, dated August 2016. This report consists of opinions and conclusions by the Engineer that are performed with the care and skill ordinarily exercised by the industry at the time of the report. Site conditions and variations in climatic or environmental conditions may have changed since the report date.

Storm events used in this report are based on statistical averages and not on the number of years between events. The 100-year, 24-hour storm event utilized in this report represents a statistical recurrence interval. It is a storm that has a 1 percent chance of happening in any given year. Whereas the 5-year, 24-hour storm has a 20% chance reoccurrence interval in any given year. Storm event may occur in consecutive years or even within the same year.

It should be noted that not every 100-year rainfall event leads to a 100-years flood and storms with less than 100-year rainfall reoccurrence intervals may generate more flow. Local circumstances may allow for a less severe storm to lead to severe flooding, such as the ground being saturated prior to the storm event.

As the existing outlet structure in Lot 49 was designed to release 10 cfs during a 100-year event, it was assumed that all downstream facilities can manage that flow.

APPENDIX 1 - HIDDEN BRIDGE RANCH ARCHITECTURAL CONTROL HANDBOOK WITH DESIGN GUIDELINES

EXHIBIT
tabbies
D

HIDDEN BRIDGE RANCH

ARCHITECTURAL CONTROL HANDBOOK WITH DESIGN GUIDELINES

January 1, 2020

Requirements are Subject to Change

Revised 6.1.11

These Guidelines are published to assist Owners and Builders in complying with the Covenant provisions of Cloud Peak Ranch and to encourage all residential construction to be completed in conformity with the provisions for architectural control. These are guidelines only and the Architectural Review Committee (ARC) does have final approval authority for the plans submitted. Individual items may be waived or other requirements added to produce an acceptable outcome or may be varied by location and lot to enhance compatibility. Failure to abide by these provisions may result in liens, assessments, or both.

1) **PURPOSE**: All plans submitted to the ARC will be evaluated by the Developer and approval will be based upon conformance with the submittal requirements, architectural standards, and the construction regulations described herein. The intent of the review process is to ensure that each home has individual design quality and integrity while remaining compatible with the overall neighborhood.

2) **ARCHITECTURAL REVIEW REQUIREMENTS**:

A) The items shown on the attached Submittal Checklist for Architectural Control must be submitted and ARC approval received prior to any construction activity.

B) A $250 deposit payable to the **Cloud Peak Ranch Homeowners Association** will be collected with each Owners ARC submittal. This deposit will be held for architectural control and construction compliance. It is the intent of the Developer to maintain high standards of cleanliness and compliance throughout the build-out period. When construction has been completed and landscaping installed, the deposit will be refunded, without interest. However, if, in the sole judgment of the Association, there is not compliance with stated requirements, the Association may take actions to maintain lots, install fencing, remove trash, etc. from any lot not adequately maintained or properly kept with any costs for such actions being debited against the deposit and assessed to the Owner if over and above the above referenced deposit.

C) Although preliminary submittals are not required, they are encouraged. The ARC will review any Builder's or Owner's plans, sketches or conceptual drawings at any stage before final submittal. This process should help Owners avoid the expense and frustration of possible ARC disapproval of formal submittal.

SUBMITTAL CHECKLIST FOR ARCHITECTURAL CONTROL

3) **SUBMITTAL REQUIREMENTS**: Before construction begins each Owner must submit the following items for review by the ARC and all submittals are to be clearly marked with the Owner's name and phone number, mailing address, lot number, and address. Email Submittals require only 1 copy each:

A) Site Plan (2 copies) which indicated the following:
- Building locations (dimensioned from all property lines)
- Setbacks and easements
- All driveways, decks, pads, sidewalks, etc., locations
- Utility connections
- Grading and drainage plan illustrated with arrows showing the direction of drainage
- Top of Wall elevations for house, garage, and all step-downs
- Elevations of all corners of each lot
- Top of finish floor elevation (main floor).

B) Construction Drawings (2 sets – One will be returned to you) indicating:
- Exterior elevations, all sides
- Indications of exterior materials with front percentages calculated & shown

- Exterior details including chimneys, exterior stairs, decks, railings, and columns
- Roof pitches
- Building height measured from where a driveway meets top of curb

C) Colors and Exterior Finishes:

- Color brochure of exterior finishes and paint colors on 8 ½ x 11 format
- Color brochure of roof selection with specifications & warranty details

D) Landscape and Fencing Plans: (2 sets – One will be returned to you)

- Site plan showing location and type of trees & shrubs; fencing; grass; rock; berms; fountains or ponds; terracing, retaining walls; decorative features; lighting; etc. If you are planning a fence, please attach a copy of the fence detail specific to your lot so that there is no confusion as to criteria.

E) Additional Improvements:

- Any other anticipated items such as dog runs, storage areas, etc. Additional construction to a home or landscaping after completion of an approved site must be submitted to ARC for approval prior to initiating such changes or additions.

F) Review Fees:

- $150 Fee payable to Stan Everitt
- $2000 Deposit payable to Cloud Peak Ranch HOA (See Item 2B)

G) Soils Reports:

- Soils Investigative Reports are not required for each lot but are highly recommended for the protection of the home-owner.

4)**BUILDING CODE:** All residential structures must conform to the applicable building code of the City of Sheridan. Approval by the ARC of plans submitted to them does not imply compliance with any building code or ordinances. The Owner and Builder shall be required to obtain a building permit from the City of Sheridan and obtain the necessary inspections for a Certificate of Occupancy.

ARCHITECTURAL STANDARDS:

1)**DIVERSITY OF STYLES:** It is the intent of the ARC to ensure that each home is compatible with the neighborhood as a whole; while encouraging individuality of style.

2)**MINIMUM SQUARE FOOTAGE:** Unless otherwise approved by the ARC in their sole discretion, no dwelling may be erected unless the finished floor space area thereof, exclusive of basement, open porches, garages, and attached out-buildings is at least:

Dwelling Style	Minimum Square Footage
Ranch	1500 Square Feet
2 Story	1800 Square Feet

3.) **BUILDING LOCATION, BUILDING ENVELOPES, AND GARAGES:**
All lots are subject to specific setback requirements as follows:

- Minimum front yard setback is 25' from the front property line.
- Minimum back yard setback is 20' from the rear property line.
- Minimum side yard setback is 5' from side property lines for all lots that are under 10,000 square feet; for all lots that are 10,000 square feet and greater the side yard setback is 7' from property lines.
- Garages are encouraged to be side-loading or recessed behind the front of the house.
  Any front-loading garage that protrudes beyond any portion of the front of the house shall not protrude in excess of 12 feet beyond the furthest front portion of the house. In addition, protruding front-loading garages shall increase the amount of brick or masonry to the largest extent possible excluding the area directly over the header of the garage door or doors and/or upgrade the garage door(s). Gable ends over protruding garages shall be treated to avoid large

expanses of like materials (excluding masonry) by stepping back the gable, hipping the roof, eyebrow returns, mixing materials and colors, or other treatments acceptable to the ARC. The foundation shall be required to step either forward or back a minimum of 2' for garages that have more than 2 stalls (not doors but stalls). There shall not be any garages that have 3 stalls in one single plane on the residence.

- For corner lots with frontage along two road rights-of-way, or lots of irregular shapes, The City Of Sheridan may assign the rear setback designation to a property boundary based upon the lot's configuration: the Owner (or their agent) shall bear the responsibility for contacting the City to confirm the rear setback determination for such a lot prior to preparation of a site plan.

The ARC will discourage the location of driveways being located back to back on neighboring lots. The first property approved may determine whether the adjacent lots are right or left-handed garages. In those cases where back to back driveways are unavoidable, additional setback from side property lines may be required along with enhanced landscaping to buffer the adjacent drives. Driveways shall not exceed 22' where they meet the curb.

4.) **EXTERIOR ELEVATIONS:**

- Exterior Finish — 30% minimum of entire front elevation to be masonry or stucco. Stucco must be upgraded design with built-out windows and detailing. Brick or stone is encouraged on front elevations. Rear and Side elevations should also include architectural enhancements to mitigate large expanses of blank walls.

- Siding — Hardboard siding – painted minimum or equivalent. 8" maximum reveal. Vertical siding is only acceptable as an accent or if it is complementary to specific styles. Steel siding must be approved by ARC, must conform to ASTM Designation A-653/A6533M and A-924, minimum 29 gauge. Only 4" and 5" profiles are allowed. Cement impregnated siding is acceptable.

- Corner boards — 1 x 6 Battens minimum

- Fascia & Soffits — Minimum 6" fascia with birdbox corners; Minimum 12" soffits
- Windows — 1" x 4" minimum window surround on all windows.
- Overhang — Minimum 12"
- Roof Slope — 5/12 pitch minimum; 12/12 Pitch Maximum (Predominant roofs) If less than 5/12 pitch, Overhangs must be increased by 1 foot per 1 inch of decrease (i.e. 4/12 pitch = 24"overhang).
- Vents, Pipes, Chimney Caps — To be located on roof slope away from the street whenever possible and shall be painted to match the roof color whenever possible.

5.) **COLORS:** Color selection sheets showing body & trim paint and exterior masonry selection must be approved by ARC before installation. All exterior railing, wood, trim or other exposed surfaces must be painted or stained.

6.) **ROOFING:** A minimum of **30 Year** heavy textured, shadow composition shingle in **Driftwood color**; OR tile or slate which has been approved by ARC. Metal roofs or cement tile may be approved if complimentary to the architectural style of the home and are of a natural color. Standard composition shingles are not acceptable. Spanish style, barrel tile will not be accepted. Flat roofs or southwest style is not acceptable.

7. **HEIGHT:** 35' maximum from where the driveway meets top of the curb.

8. **TOP OF WALL:** Minimum elevation of 12" above the highest corner of the lot, a Maximum of 42" above lowest corner of the lot

9. **FENCING:** See Fence Detail #1 & #2 documents for specific requirements. Fencing shall be vinyl as per Detail.

Solid screen wall privacy fences will be allowed around patios and decks as long as they are not visible from the front of the house. Such privacy fences will be reviewed on a per-occurrence basis but are encouraged to blend with the materials of the residence or be of earth tone colors.

10. LANDSCAPE:

All lots must have a detailed landscaping plan approved by ARC before installation. Plans to be submitted with dwelling plans or not later than 30 days after the earlier of completion of construction or certificate of occupancy. Grass seeding or sod to be installed within 30 days on all homes completed between May 1 and September 1 of any year. Homes completed after September 1 must-have grass by next July 1. Construction Deposit will not be released unless landscaping has been fully installed according to the schedule above. All three locations shall be reviewed by the ARC as to not obstruct the primary views of any neighbors. The intention of the approval process is to encourage an open feel between lots. See Exhibit

11. CONSTRUCTION MAINTENANCE:

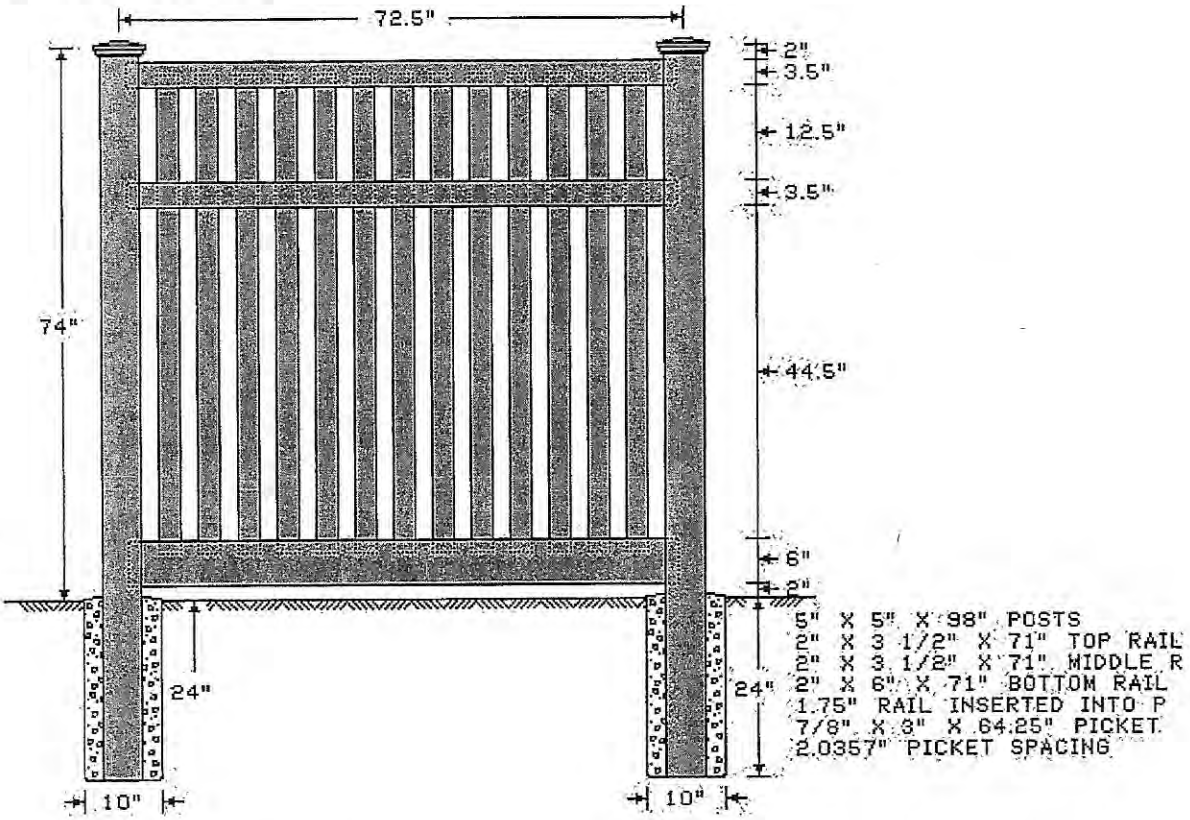
All owners are responsible for maintaining their lots by controlling weeds and trash. Each lot should have its own temporary power, trash container, and portable toilet unless several Owners have agreed to share these facilities.

12. DECKS & COVERED PATIO'S:

Any elevated deck or support post for covered patio roof shall require columns, posts or a covered deck using the same roofing materials as house.

HIDDEN BRIDGE RANCH

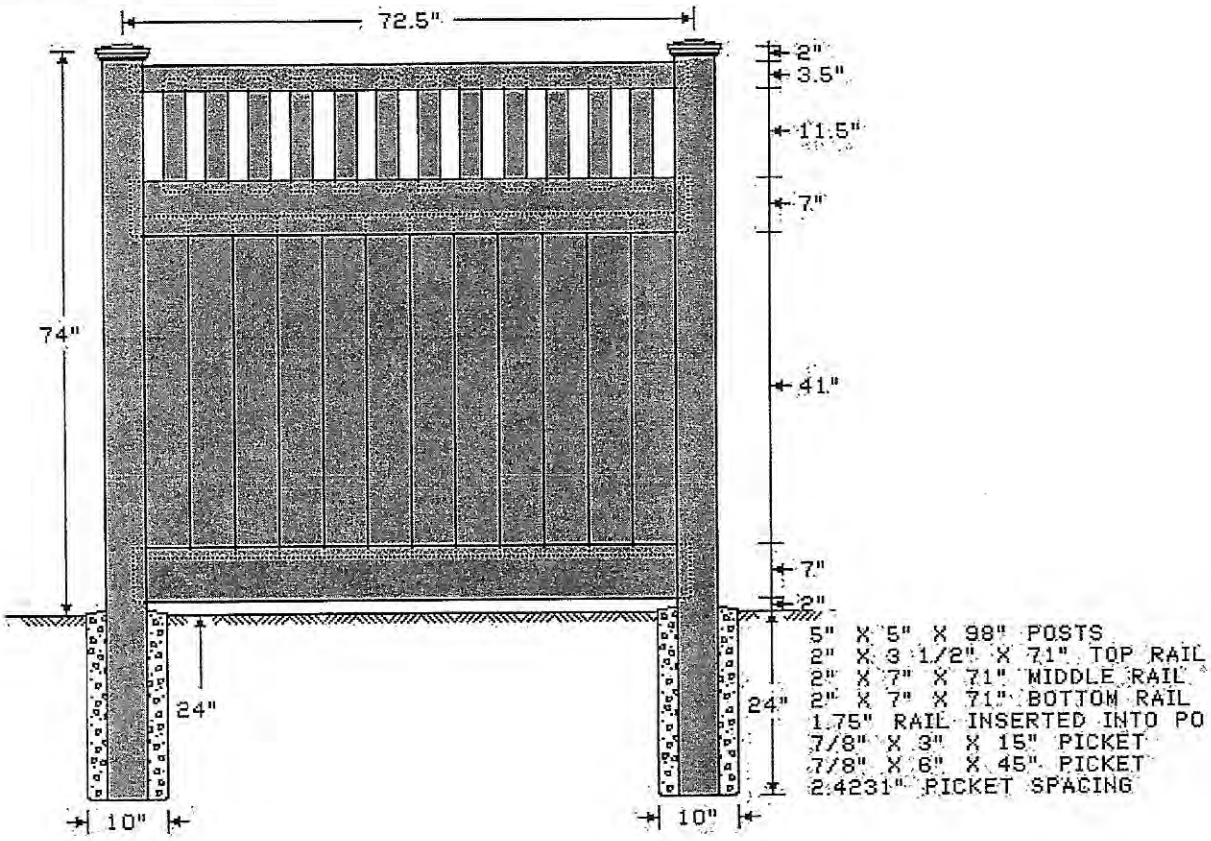
Fence Detail #1



Gainesville: Vinyl semi-privacy Fence - Almond
(Creative Vinyl Fence Co.)

HIDDEN BRIDGE RANCH

Fence Detail #2

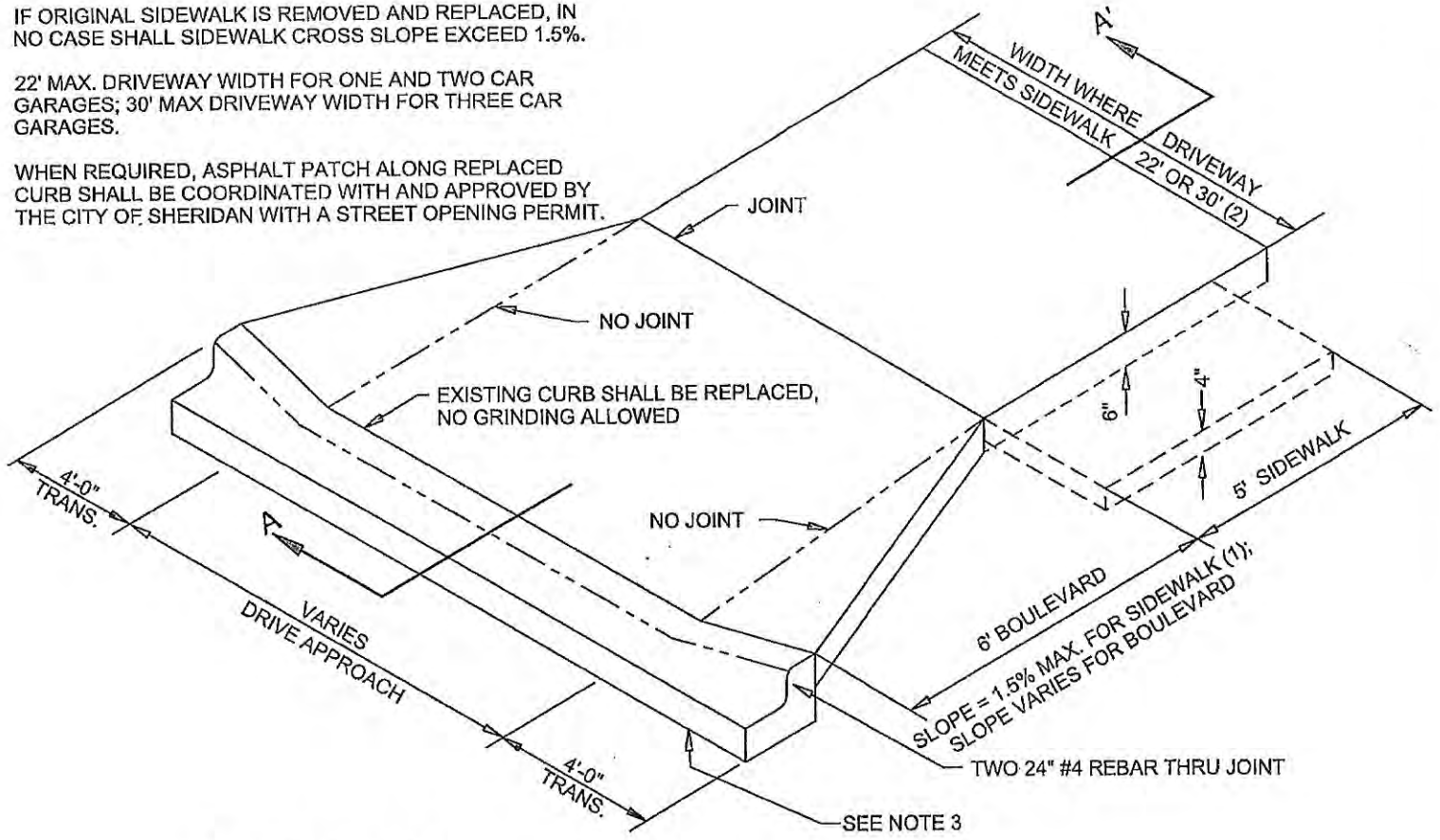


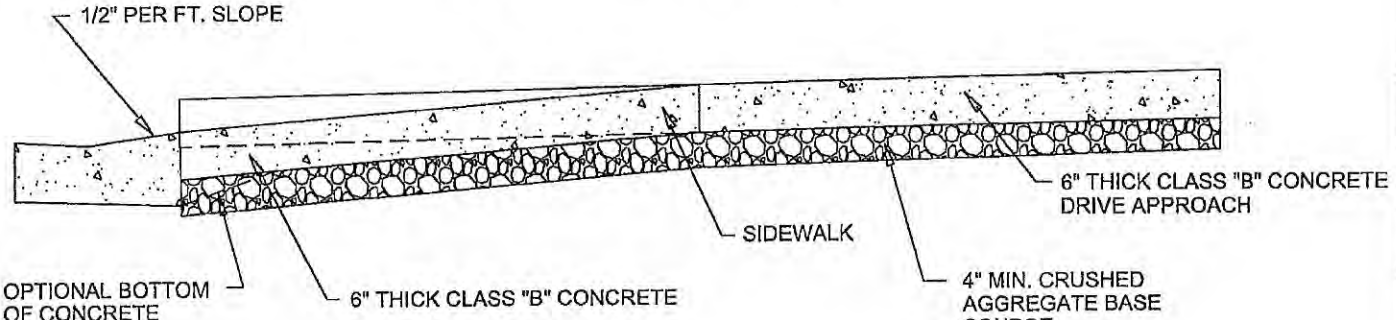
Yorktown: Vinyl Privacy Fence - Almond (top may be privacy as well)
(Creative Vinyl Fence Co.)

DRIVEWAY REQUIREMENTS FOR CLOUD PEAK RANCH

NOTES:

1. IF ORIGINAL SIDEWALK IS REMOVED AND REPLACED, IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 1.5%.
2. 22' MAX. DRIVEWAY WIDTH FOR ONE AND TWO CAR GARAGES; 30' MAX DRIVEWAY WIDTH FOR THREE CAR GARAGES.
3. WHEN REQUIRED, ASPHALT PATCH ALONG REPLACED CURB SHALL BE COORDINATED WITH AND APPROVED BY THE CITY OF SHERIDAN WITH A STREET OPENING PERMIT.





A - A'

NOT TO SCALE

CLOUD PEAK RANCH HOMEOWNER'S ASSOCIATION

AUGUST 2014

HIDDEN BRIDGE RANCH

ARCHITECTURAL CONTROL SUB-MITTAL FOR HIDDEN BRIDGE RANCH

USE CHECKLIST BELOW AND SUBMIT THIS FORM WITH PLANS AND FEES. E-MAIL SUBMITTAL TO:cprpropertymgmt@gmail.com MAIL OR DELIVER FEES AND/OR PLAN SUBMITTAL TO: Cloud Peak Ranch HOA, 1511 Mydland Road #4, SHERIDAN, WY 82801

Date of Submittal:_____Lot____Phase_____Address:_____
Applicant's Name: _____
Mailing Address:_____Phone_____
Builder Name:_____Phone_____

_____ **CONSTRUCTION DEPOSIT:** $250 per lot payable to Cloud Peak Ranch HOA
_____ **FEES:** $250 Architectural Review per lot payable to Cloud Peak Ranch HOA ($150 additional for each revision after 2nd review)

_____ **SITE PLAN (1 Copy OR submit by E-mail PDF format)**
- _____ Building Location (dimensioned from all property lines)
- _____ Setbacks and Easements are shown
- _____ Driveway, decks, pads, sidewalks locations are shown
- _____ Grading and Drainage Plan, **including flow arrows**
- _____ Top of Wall Elevations for House and Garage and all step-downs
- _____ Elevations of all lot corners shown

_____ **CONSTRUCTION DRAWINGS (1 Copy OR submit by email PDF format)**
- _____ Exterior Elevations showing dimensioned trim, railing & door details
- _____ Indications of exterior materials with percentages calculated & shown
- _____ Exterior details including chimneys, stairs, decks, railings, columns, etc.
- _____ Roof pitches shown
- _____ Square Footage is_____. (Per Handbook)
- _____ Building height as measured from where driveway meets top of curb is____.

_____ **COLORS AND EXTERIOR FINISHES:**
- _____ Colored brochure pages of exterior finishes shall be attached to Color Submittal Form (No Photos, except for brick or stone)
- _____ Colored brochure page of roof selection with warranty and details

_____ **USE SEPARATE SUBMITTAL FORM FOR LANDSCAPING PLAN.**

11

Construction Deposit will not be released until the house and all landscaping are completed as Approved Plans

HIDDEN BRIDGE RANCH

EXTERIOR COLORS AND MASONRY SELECTIONS FORM

The following exterior paint colors and brick selections are hereby submitted for approval by the Architectural Review Committee of Cloud Peak Ranch and will be retained in the HOA files. I agree to submit any changes to these selections for approval prior to application.

Note: ARC approval must be given prior to application.

Lot #_____ Site Address:_____Submittal Date: _____

Builder's Name:_____Phone #: _____

Submit a Colored Brochure Page for the following items:

	Brand	Style	Color
Body			
Gables			
Trim			
Soffit & Fascia			

Windows			
Entrance Door			
Sidelight(s) by door			

Garage Doors			
Garage Doors Windows			

Shingles			

Brick, Stone or Stucco			

Specialty Items: railings, architectural features, columns, post surrounds, etc.			

Other			

HIDDEN BRIDGE RANCH

LANDSCAPING SUBMITTAL FOR HIDDEN BRIDGE RANCH

PLEASE CHECK OFF ***ITEMS INCLUDED AND SUBMIT THIS FORM WITH YOUR LANDSCAPING PLAN.***
SUBMIT APPROPRIATE DEPOSIT PAYABLE TO Cloud Peak Ranch HOA.
E-MAIL, MAIL OR DELIVER TO Cloud Peak Ranch HOA cprpropertymgmt@gmail.com, ***1511 Mydland Road #4, Sheridan, WY 82801***

PLEASE EXPECT 2 - 3 WEEKS FOR 'LANDSCAPING PLAN APPROVALOR THE REQUEST FOR CLARIFICATION OF PLAN FROM DATE OF SUBMITTAL

Date of Submittal:_____Address:_____
_____ Applicant's Name: _____
_____
Mailing Address:_____Phone_____
_____ Landscaping Company:_____ Phone_____
_____ **EMAIL ADDRESS**: _____
_____

Site Plan must show:

_____ **Landscaping:**
- _____ Arrows showing drainage pattern
- _____ List names of all trees, shrubs & perennial plants
- _____ Show location & distance from closest property line for all trees & shrubs
- _____ Raised planting areas, berms, or terracing,
- _____ Type of edging for planted areas or terracing materials
- _____ Rock areas - minimum 2" to 3" size rock required (no gravel allowed)
- _____ Mulch areas
- _____ Areas to be Grass
- _____ Large rocks/boulders
- _____ Fountains or Ponds
- _____ Decorative features, lighting

_____ **Fencing & Gates: (Fences are not required)**
- _____ Attach a copy of the Approved Fence Design for your subdivision, so there is no confusion as to fence detail criteria
- _____ Show location of fence
- _____ Show location & size of gates

_____ **Other: (If applicable)**
- _____ Patio –location, materials & size
- _____ Sidewalk, walk-ways, paths (poured concrete, stone pavers, etc.)
- _____ Privacy Screen for patio or deck area. Show locations of Privacy screen. Submit a separate drawing showing style/design, materials, height and color.
- _____ Shed (if applicable for your subdivision). Attach approved design, materials, colors, size, height & floor base

_____
_____

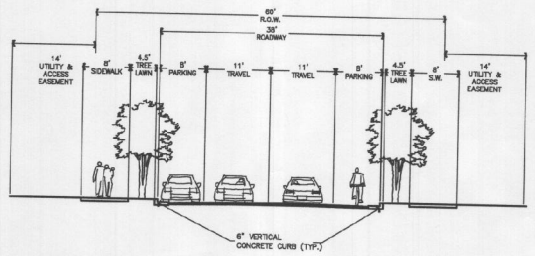
Construction Deposit will not be released until all Landscaping, Fencing or Other shown on the approved Landscaping Plan is completed.

Outline Development Plan - Roadway Classification Exhibit



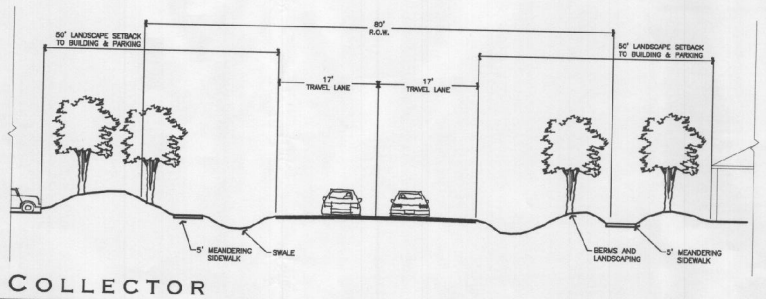
Legend

- Arterial
- Collector
- Connector
- Local



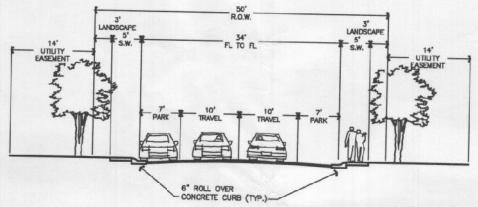
Connector Street

NOT TO SCALE



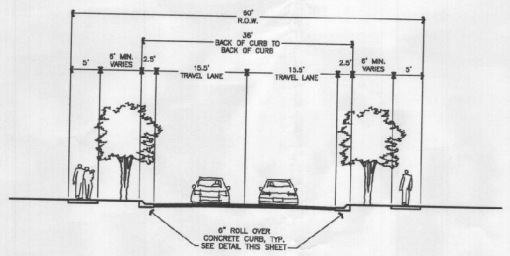
Collector

NOT TO SCALE



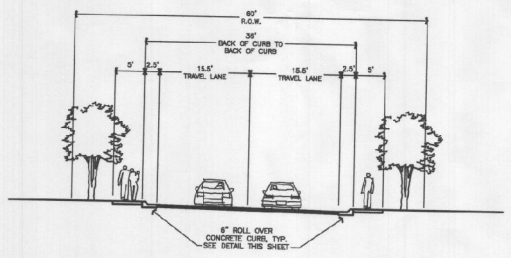
Local Street - Cul-De-Sac

NOT TO SCALE



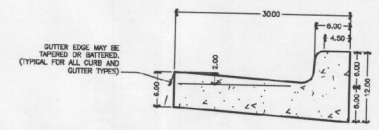
Local w/ Detached Sidewalk

NOT TO SCALE



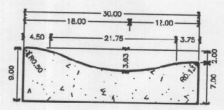
Local w/ Attached Sidewalk

NOT TO SCALE



Vertical Curb Detail

NOT TO SCALE



Roll-Over Curb Detail

NOT TO SCALE

Cloud Peak Ranch

Outline Development Plan

Sheridan, Wyoming

EVERITT COMPANIES

TBG

October 9, 2008

Streets
5 of 9

APPENDIX 2 – RENDERINGS

RANCH STYLE HOME





NXT GEN STYLE HOME





2-STORY STYLE HOME





STORAGE UNITS



APPENDIX 3: CLOUD PEAK RANCH 3RD FILING EASEMENT

CITY OF SHERIDAN, WYOMING

LETTER AGREEMENT

August 1, 2013

Don Roberts
20 Pine Lane
Sheridan, WY 82801

RE: Development Considerations – Cloud Peak Ranch 3rd Filing Annexation Area

Dear Don:

This letter serves as an agreement between the City of Sheridan and yourself as developer of the Cloud Peak Ranch Annexation, Third Filing. This letter serves to memorialize the understanding between yourself and the City in regard to the further development of the Cloud Peak Ranch Annexation, Third Filing.

Recitals

1. The City of Sheridan is striving to foster a development process in which conceptual planning of large tracts of land is encouraged. This is opposed the historic system of requiring fully developed plats and engineering for early phases of development approval, which discouraged the planning and development of large tracts of land, but rather resulted in a piecemeal of subdivision phases and a patchwork approach to development.

2. Concurrent with encouraging private development large scale planning, the City itself is establishing a larger vision for the community which requires identifying the most logical and beneficial location of community improvements such as roadways, pathways, and utility infrastructure. It is the intersection of large scale private development and public municipal planning that the most critical decisions must be made.

3. The City desires to expand its Pathways system, and the grant funding the City utilizes requires the dedication of right-of-way or land in order for the City to be awarded funding.

4. The Sheridan Urban Systems Advisory Committee (SUSAC), consisting of representatives of the City, Sheridan County, and WYDOT are actively planning the for the community's major roadways. SUSAC has already identified the route for, and committed to the design and construction of the West Corridor Roadway, which will serve as the principal north/south route on the western edge of the community.

55 GRINNELL PLAZA
SHERIDAN, WY 82801
PHONE: (307) 674-6483 FAX: (307) 674-2195

5. The City has also identified that, to the greatest extent possible, the West Corridor alignment will also be the alignment of the Northwest Water Transmission Main Loop Project.

6. In order to facilitate the development and construction of the West Corridor, the City is acquiring right-of-way

Responsibilities and Obligations

1. You agree to dedicate, without monetary remuneration, 120' of right-of-way (ROW) as shown on Exhibits A, B, and C for the installation of utilities in addition to the future construction of the West Corridor roadway. In return, you will not be required to contribute to the reconstruction of West 5th St. currently under design. You will still be responsible for updating traffic studies and plans with future subdivision phases in the Cloud Peak Ranch Annexation Area. You will be required to mitigate any impacts unanticipated by traffic studies prepared by Delich Associates and updated by Vista West considered as part of the baseline for the reconstruction project. Further, additional traffic study or plan updates shall only be required when accompanying applications for development projects.

2. You agree to dedicate a 20' ROW for pedestrian pathways as shown on Exhibit C. You will not be required to contribute to the construction of any pathway constructed within the ROW you dedicate as part of this agreement or to dedicate or contribute to construction of any additional pathways within the Cloud Peak Second or Third Filing Annexation land south of 5th street. However, the City of Sheridan may require as part of future platting, dedication of ROW and/or easements to allow for pathway connections to street sidewalks that are associated with each subdivision plat. Any open space dedicated by virtue of the terms of this letter will be counted towards meeting the open space obligations for the Cloud Peak Ranch First, Second, and Third Annexation filings. You and the City agree to enter into a supplemental agreement regarding operation and maintenance of the pathway, in particular the agreement shall address the following:

    a. Utilization of a portion of the pathway by golf carts as long as adjacent land is utilized as a golf course.

    b. Cooperative maintenance of features used by both residents of the community in general and golfers utilizing the adjacent course.

3. You will further dedicate a minimum of 3 acres as shown conceptually on Exhibit C to the development of a neighborhood park. The final location of this park will be based on the approved location of roadway serving this area. This dedication will also be counted towards meeting your open space obligations for the Cloud Peak Ranch First, Second, and Third Annexation filings. Likewise, you will not be required to contribute financially towards the development of this park.
4. The pathway areas, the 120' ROW dedication, and the 3 acre neighborhood park; all dedicated by virtue of the terms of this letter, will satisfy meeting the open space obligations for the Cloud Peak Ranch Second and Third Filing Annexation land south of 5th St.

5. The City on review of the conceptual layout of developable area north of 5th Street will only require a single access to serve development west of the West Corridor ROW. Unless property is rezoned, or otherwise developed in such a way that increases the density allowed by the present zoning, no additional access will be required, though additional access further to the west may be desirable. Additionally:

    a. City staff has reviewed the release of municipal shooting range grazing easement by the VA, and have determined that "municipal use" as described in the release includes the development of a public street.

    b. The design criteria for a minor arterial, which the West Corridor will be, calls for limiting accesses to ¼ mile. Staff's review indicates that this should allow for your property to have two accesses off of the right-of-way north of 5th St. City staff and administration will support and advocate this contention through the design process on your behalf.

Additional Considerations

It is understood that, though not a requirement of the City in meeting any particular obligation, that the Sheridan Heights Ranch, LLC, will donate 30.7 acres as shown on Exhibit C for a regional park. You will not be required by the City to contribute towards the development or construction of amenities for said park.

If you are in agreement with this letter, please sign and date below and fax it to me and return it to the City Planning Office.

Sincerely,

Dave Kinskey

Dave Kinskey, Mayor

ACCEPTED AND AGREED

For Sheridan Heights Ranch, LLC

Date: 8/1/13

By: Donald B. Roberts
Title:

55 GRINNELL PLAZA
SHERIDAN, WY 82801
PHONE: (307) 674-6483 FAX: (307) 674-2195

For System Land, LLC

_____ Date: 8/1/13

By: Donald B. Roberts
TItle:

c: Planning File

55 GRINNELL PLAZA
SHERIDAN, WY 82801
PHONE: (307) 674-6483 FAX: (307) 674-2195

2013-706811 8/7/2013 12:02 PM PAGE: 1 OF 6
BOOK: 542 PAGE: 255 FEES: $27.00 VL EASEMENT
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

DEDICATION OF EASEMENT AND RIGHT OF WAY

This easement is entered into between Sheridan Heights Ranch, LLC ("Grantor"), whose address is and City of Sheridan ("Grantee"), whose address is 55 Grinnell Plaza, Sheridan, WY 82801.

Grantor grants, conveys and dedicates to Grantee, its successors and assigns a perpetual, non-exclusive easement and right-of-way to survey, design, construct, install, inspect, operate, maintain, repair and replace a road and utilities, including, but not limited to water and sewer services, power and gas services, phone services, and fiber optic and similar communication lines over, across and under the following described property situate in Sheridan County, Wyoming:

SEE ATTACHED EXHIBITS A AND B

This easement is subject to the following terms and conditions.

1. **Duration.** This easement shall be perpetual.

2. **Reclamation.** Within six (6) months after the disturbance, weather permitting, Grantee will reclaim and restore to its original condition, as near as possible, all areas which are not occupied by the constructed road and which are disturbed by Grantee's installation, construction, maintenance, repair or replacement activities. Grantee will repair any trench settlement. Topsoil will be kept separate from subsoil wherever there is any disturbance, and topsoil will be spread back over the subsoil. Grantee will control erosion and weeds on the easement area. This obligation to reclaim and restore shall apply each time the easement area is disturbed by Grantee's operations.

3. **Debris.** Grantee will not allow any debris to be discarded on the easement, and Grantee will be responsible to clean up debris along the easement for which Grantee or Grantee's invitees are responsible.

4. **Buried Lines.** Grantee shall bury all utility lines at least 48 inches between the surface of the ground and the top of the pipe.

5. **Nonexclusive Use.** This easement is nonexclusive and shall not preclude Grantor from using the easement area or from granting the right to other persons and parties to use the easement area; provided, however, such use will not unreasonably interfere with Grantee's use of the easement area.

6. **Nondisturbance.** Grantee and its employees and agents shall not disturb, use, or travel upon any of the land of Grantor outside the easement area described herein.

7. **No Warranty.** Grantor makes no warranty of title or otherwise in entering into this Agreement. Grantee shall be responsible for assuring that its use of the easement area does not conflict with any third party pipelines, easements, or surface use agreements.

8. **Indemnification.** To the maximum extent permitted by law, Grantee shall indemnify and hold Grantor and Grantor's managers, members, agents and employees harmless from any legal actions or claims that arise out of the use of the easement and right of way by Grantee or its agents or the public unless such claims are the sole result of Grantor's gross negligence or willful

misconduct. Notwithstanding the foregoing, Grantee does not waive any right it may have under the Wyoming Governmental Claims Act.

9. **Binding Effect.** This agreement is binding upon the successors and assigns of the parties and shall run with the land.

10. **Dedication Upon Filing of Plat.** At such time as Grantor files a plat which includes the above described easement and right of way, Grantor shall dedicate the easement and right of way as required by the laws of the State of Wyoming and the subdivsion ordinance of the City of Sheridan

Dated this 1 day of August, 2013.

Sheridan Heights Ranch, LLC

By: _____
Title: Manager

City of Sheridan, Wyoming

By: Dave Kinskey
Title: Mayor

STATE OF Wyoming)
) ss.
COUNTY OF Sheridan)

This instrument was acknowledged before me this 1st day of August, 2013 by Donald B. Roberts, manager of Sheridan Heights Ranch, LLC.

WITNESS my hand and official seal.

Brenda K. Williams
Notary Public
My commission expires: 11/12/2016

BRENDA K. WILLIAMS - NOTARY PUBLIC
County of Sheridan State of Wyoming
My Commission Expires November 12, 2016

STATE OF Wyoming)
) ss.
COUNTY OF Sheridan)

This instrument was acknowledged before me this 6 day of August, 2013 by David Kinskey, Mayor of the City of Sheridan, Wyoming.

WITNESS my hand and official seal.

Susan M. Goodman
Notary Public
My commission expires: June 12, 2014

SUSAN M. GOODMAN - NOTARY PUBLIC
COUNTY OF SHERIDAN STATE OF WYOMING
My Commission Expires June 12, 2014

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BOOK: 542 PAGE: 257 FEES: $27.00 VL EASEMENT
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

EXHIBIT "A"
LEGAL DESCRIPTION

Record Owner: Sheridan Heights Ranch, LLC
April 29, 2013

Re: Dedicated Public Right-of-Way to the City of Sheridan

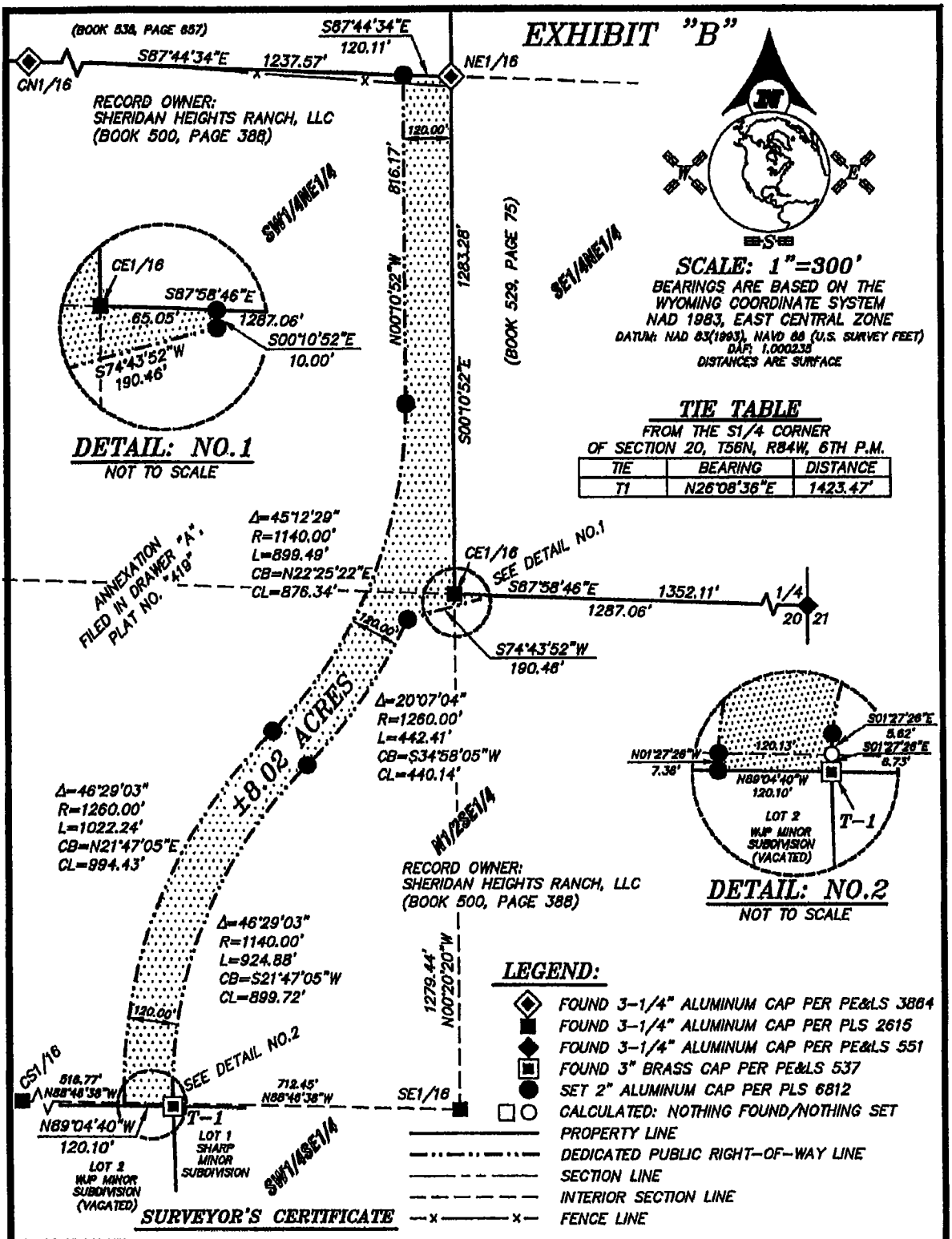
A tract of land situated in the SW¼NE¼, N½SE¼, and the SW¼SE¼ of Section 20, Township 56 North, Range 84 West, 6th P.M., Sheridan County, Wyoming, as shown on **EXHIBIT "B"** attached hereto and by this reference made a part hereof; said tract of land being more particularly described as follows:

Commencing at the south quarter corner of said Section 20 (Monumented with a 3¼" Aluminum Cap per PLS 2615); thence N26°08'36"E, 1423.47 feet to the **POINT OF BEGINNING** of said tract, said point being the northeast corner of Lot 2, WJP Minor Subdivision (Vacated) (Monumented with a 3" Brass Cap per PE&LS 537); thence N89°04'40"W, 120.10 feet along the north line of said Lot 2, WJP Minor Subdivision (Vacated) to a point; thence N01°27'26"W, 7.36 feet to a point, said point lying on the north line of said SW¼SE¼; thence, through a curve to the right, having a central angle of 46°29'03", a radius of 1260.00 feet, an arc length of 1022.24 feet, a chord bearing of N21°47'05"E, and a chord length of 994.43 feet to a point; thence, through a reverse curve to the left, having a central angle of 45°12'29", a radius of 1140.00 feet, an arc length of 899.49 feet, a chord bearing of N22°25'22"E, and a chord length of 876.34 feet to a point; thence N00°10'52"W, 816.17 feet to a point, said point lying on the north line of said SW¼NE¼; thence S87°44'34"E, 120.11 feet along said north line of the SW¼NE¼ to a point, said point being the northeast corner of said SW¼NE¼ (Monumented with a 3¼" Aluminum Cap per PE&LS 3864); thence S00°10'52"E, 1283.28 feet along the east line of said SW¼NE¼ to a point, said point being the southeast corner of said SW¼NE¼ (Monumented with a 3¼" Aluminum Cap per PLS 2615); thence S87°58'46"E, 65.05 feet along the north line of said N½SE¼ to a point; thence S00°10'52"E, 10.00 feet to a point; thence S74°43'52"W, 190.46 feet to a point; thence, through a non-tangent curve to the right, having a central angle of 20°07'04", a radius of 1260.00 feet, an arc length of 442.41 feet, a chord bearing of S34°58'05"W, and a chord length of 440.14 feet to a point; thence, through a reverse curve to the left, having a central angle of 46°29'03", a radius of 1140.00 feet, an arc length of 924.88 feet, a chord bearing of S21°47'05"W, and a chord length of 899.72 feet to a point; thence S01°27'26"E, 5.62 feet to a point, said point lying on said north line of the SW¼SE¼; thence, continue S01°27'26"E, 6.73 feet to the **POINT OF BEGINNING** of said tract.

Said tract contains 8.02 acres of land, more or less.
Bearings are Based on the Wyoming Coordinate System, NAD 1983, East Central Zone.
H:\WP\LD\T56N\2013\2013-007-LD1.rtf

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BOOK: 542 PAGE: 258 FEES: $27.00 VL EASEMENT
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

EXHIBIT "B"



SURVEYOR'S CERTIFICATE

STATE OF WYOMING
COUNTY OF SHERIDAN ss

I, THOMAS D. TUCKER, A DULY REGISTERED LAND SURVEYOR IN THE STATE OF WYOMING, DO HEREBY STATE THAT THIS PLAT REPRESENTS THE RESULTS OF A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION.

Professional Land Surveyor
THOMAS D. TUCKER
6812
Date: 4-29-2013
WYOMING

"PLAT IS VALID ONLY IF PRINT HAS ORIGINAL SIGNATURE OF SURVEYOR SIGNED AND DATED"

EXHIBIT "B"

DEDICATED PUBLIC RIGHT-OF-WAY

CLIENT: DOWL-HKM & THE CITY OF SHERIDAN

LOCATION: SW1/4NE1/4, N1/2SE1/4, SW1/4SE1/4, SECTION 20, T56N, R84W, 6TH P.M., SHERIDAN COUNTY, WYOMING

PRESTFELDT SURVEYING
2340 WETLANDS DR., SUITE 100
PO BOX 3082
SHERIDAN, WY 82801
307-672-7415
FAX 674-5000

JN: 2013-007
DN: 2013-007-D1
PF: T2013-007
APRIL 29, 2013

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EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

Exhibit C

SOLDIER CREEK RD
5TH STREET
W 5TH ST
PRIVATE
COVEY RUN RD
MYDLAND RD
LONG DR
FAIRGROUNDS
FAIRWAY LN
VICTORIA ST
N MOUNTAIN VIEW DR
W MOUNTAIN VIEW DR
2ND WEST PKWY
1ST WEST PKWY
S MOUNTAIN VIEW DR
SCOTT DR
SCOTT PL
LITTLEHORN DR
S DOME DR
PHEASANT DRAW RD
QUAIL CT
BLUEBIRD LN

COMMERCIAL 12.3 ACRES
COMMERCIAL 4.5 ACRES
COMMERCIAL 13.5 ACRES
COMMERCIAL 15.1 ACRES
CITY OF SHERIDAN COMMUNITY PARK 30.7 ACRES
POND (PART OF COMMUNITY PARK WITH GOLF ACCESS EASEMENT)
ESTATE RESIDENTIAL 11.9 ACRES
ESTATE RESIDENTIAL 8.5 ACRES
ESTATE RESIDENTIAL 25.4 ACRES
ESTATE RESIDENTIAL 30.4 ACRES
ESTATE RESIDENTIAL 19.5 ACRES
RESIDENTIAL 16.1 ACRES
RESIDENTIAL 29.4 ACRES
EXPANDED IRRIGATION POND
NEIGHBORHOOD PARK 3 ACRES
Sheridan Country Club
Rotary Park
Sheridan County Fa
1650 W Fifth
1753 VICTORIA ST
1595 W 5th St
2 Mydland Rd
ELEMENTARY School SD #2

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EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

0 500 1,000 Feet

Pathway ROW
West Corridor Alignment
Neighborhood Park

NO. 2013-706811 EASEMENT
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK
CITY OF SHERIDAN - PLANNING P O BOX 848
SHERIDAN WY 82801

APPENDIX 4: GEOTECHNICAL REPORT

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

REPORT OF GEOTECHNICAL EXPLORATION

Hidden Bridge Development
Mydland Road
Sheridan, Wyoming

AET No. 19-20177

Date:

May 8, 2020

Prepared for:

DOWL
Mr. Dale Lee
16 West 8th Street
Sheridan, Wyoming 82801

www.amengtest.com

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

May 8, 2020

DOWL
16 West 8th Street,
Sheridan, Wyoming 82801

Attn: Mr. Dale Lee

RE: Geotechnical Exploration and Review
Hidden Bridge Development
Mydland Road
Sheridan, Wyoming 82801
Report No. 19-20177

Dear Mr. Lee,

American Engineering Testing, Inc. (AET) is pleased to present the results of our subsurface exploration program and geotechnical engineering review for the Hidden Bridge Development project in Sheridan, Wyoming. These services were performed in general accordance with our proposal dated March 10, 2020 and your written authorization to proceed provided on March 26, 2020. We are submitting one (1) electronic copy of this report to you.

Within the limitations of scope, budget, and schedule, our services have been conducted according to generally accepted geotechnical engineering practices at this time and location. Other than this, no warranty, either expressed or implied, is intended. Important information regarding risk management and proper use of this report is given in the Appendix entitled "Geotechnical Report Limitations and Guidelines for Use".

Please contact me if you have any questions about the report. I can also be contacted for arranging construction observation and testing services during the earthwork phase.

Sincerely,
American Engineering Testing, Inc.

Brian Freed

Brian Freed, MS, PE
Engineer I, Construction Materials Manager
Phone: (612) 244-0083
bfreed@amengtest.com

72 E. Ridge Road, Unit D | Sheridan, WY 82801
Phone 307-675-1862 | www.amengtest.com | AA/EEO

This document shall not be reproduced, except in full, without written approval from American Engineering Testing, Inc.

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

SIGNATURE PAGE

Prepared for:

DOWL
16 West 8th Street,
Sheridan WY, 82801

Attn: Dale Lee

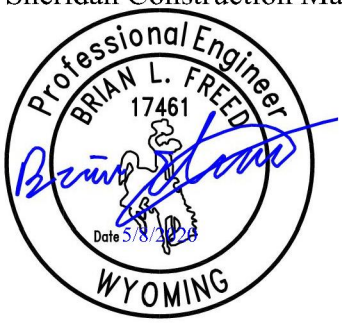
Prepared by:

American Engineering Testing, Inc.
72 E. Ridge Road Unit D
Sheridan WY, 82801
(307) 675-1862/www.amengtest.com

Authored by:

Brian Freed

Brian Freed, MS, PE
Geotechnical Engineer I
Sheridan Construction Materials Manager



Name: Brian Freed, PE
Date: 5/8/2020 License #: 17461

Reviewed by:

Robert Temme PE
Senior Geotechnical Engineer
West Region BD Director

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- Swell Consolidation
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APPENDIX B – Geotechnical Report Limitations and Guidelines for Use

1.0 INTRODUCTION

We understand DOWL is working with Excalibur Construction who is planning a new housing development in Sheridan Wyoming. The planned development is located west of Mydland Road, and south of the DEQ building. The planned development will consist of 70-80 residential lots, a paved loop roadway and installation of various utilities. Please refer to the Site Location Map within Appendix A.

To assist with the planning and design, American Engineering Testing, Inc. (AET) was authorized to conduct a subsurface exploration program at the site, conduct soil laboratory testing, and perform a geotechnical engineering review for the project. This report presents the results of the above services and provides our engineering recommendations based on this data.

2.0 SCOPE OF SERVICES

AET's services were performed according to our proposal to you dated March 10, 2020 which you authorized on March 26, 2020. The authorized scope consists of the following.

- Nine (9) standard penetration test borings to depths of up to 30 feet below grade.
- Soil laboratory testing
- Geotechnical engineering review based on the data and preparation of this report

These services are intended for geotechnical purposes only. The scope is not intended to explore for the presence or extent of environmental contamination in the soil or groundwater.

3.0 PROJECT INFORMATION

The project site is located west of Mydland Road in Sheridan Wyoming. The development will consist of 70-80 residential lots. A paved loop road is planned through the development, various utilities are also planned. The above stated information represents our understanding of the proposed construction. This information is an integral part of our engineering review. It is important that you contact us if there are changes from that described so that we can evaluate whether modifications to our recommendations are appropriate.

4.0 SUBSURFACE EXPLORATION AND TESTING

4.1 Field Exploration Program

The subsurface exploration program conducted for the project consisted of nine (9) standard

penetration test borings advanced to depths up to approximately thirty (30) feet below the ground surface. The logs of the borings and details of the methods used appear in Appendix A. The logs contain information concerning soil layering, soil classification, geologic origins, and moisture condition. A density description or consistency is also noted for the natural soils, which is based on the standard penetration resistance (N-value).

The boring locations are shown on Figure 1 in Appendix A. The borings were located in the field by AET personnel, the number and general location of the borings were the result of conversations with Dale Lee, with DOWL. The boring elevations were interpreted from the topographic site map provided by DOWL.

4.2 Laboratory Testing

The laboratory test program included water content, dry density, Atterberg limits, sieve analysis, Standard proctor, swell-consolidation and California Bearing Ratio (CBR) tests. The test results appear in Appendix A on the individual boring logs adjacent to the samples upon which they were performed, or on the data sheets following the logs.

5.0 SITE CONDITIONS

5.1 Surface Observations

At the time of our field work, the site was covered in native grasses. The site has a large amount of elevation change with approximately 40 feet elevation difference between the highest and lowest boring. In general, the site slopes towards the east, with a drainage ditch running from the northwest corner to the southeast corner of the planned development. It is our understanding that the two high areas, located in the south west and northeast corners are planned to be used as borrow sites during the mass grading phase of construction. The southeast area of the site appeared to have cut/fill work previously completed.

5.2 Subsurface Soils/Geology

In general, underlying a thin layer of topsoil, ranging in thickness from 3 inches to 12 inches, the site soils consisted of alluvial deposits underlain by the Fort Union Formation. The alluvial site soils ranged in thickness up to 28 feet, and consisted of lean to fat clay, sands, and gravels. Cobble and boulder sized material was also encountered during drilling, primarily in the sand and gravel layers. The soils encountered in the Fort Union Formation consisted mainly of claystone, weathered claystone, silty/clayey sand and lean to fat clay. Lignite was encountered

within the Fort Union Formation at depth.

The Subsurface Boring Logs included in Appendix A give a detailed description of the soils encountered within the borings.

5.3 Groundwater

At the time of our field work, groundwater was encountered in four of the soil borings. One-inch diameter piezometers were installed in four of the soil borings to monitor groundwater levels. Water levels were measured in the piezometers and water levels ranged from 9.3 feet to 23.8 feet below ground surface. The groundwater was typically encountered within the sand and gravel layers' present.

The presence or lack of groundwater noted at the boring location should not be taken as an accurate representation of the actual groundwater levels. The time of year that the borings were drilled and the history of precipitation and other factors such as landscape watering/irrigation prior to drilling should be known when using the water level information on the soil boring logs to extrapolate water levels at other points in time.

The groundwater encountered in Boring B-6 was not observed until the coal layer was drilled into. Upon drilling into this layer, water rose in the auger to 17 feet below ground surface. We believe that the water contained within the coal layer is under pressure.

6.0 RECOMMENDATIONS

6.1 Discussion

The following recommendations are based on the soil conditions observed, and in the samples collected from the soil borings advanced at the time of the field activities. The soils encountered in each boring location and the soils encountered during excavation and site grading may vary due to the surficial geology of the site. Further, changes in climatic conditions between the time of exploration and the time of construction may also affect subsurface conditions, particularly groundwater levels and the moisture content of the soils. Due to the potential variations, we recommend that AET be retained to verify the soil conditions encountered during excavations match the information gained during our field investigation.

Please note that the following sections address recommendations for embankment, overall site

grading, soil corrosivity, subgrade preparation, utility installation, backfill, compaction requirements and asphalt pavement sections. This report also provides preliminary general recommendations for foundation systems and floor slabs. The final foundation/slab design is expected to vary depending on the actual location and subsurface soils at that specific location. We recommend additional borings be drilled within the final footprint of the homes/structures to provide specific foundation and floor slab design recommendations.

To reduce the risk of movement related to soil moisture content changes within the subgrade layer, good drainage must be maintained during and after construction. For this reason, we recommend that the excavations be left open a minimal amount of time during the construction phase.

6.2 Site Preparation/Mass Grading

We recommend existing topsoil and any organic matter be removed from within the construction limits of the new roadways and all areas to receive fill. Topsoil may be stockpiled on site for reuse once grading is complete; however, any organic material, and any old construction debris encountered should be wasted from the site.

At the time of this report a final grading plan was not available for the site. We anticipate that cuts and fills up to 15 feet may be required in places. Where required, grading should continue to the desired construction elevations. All final subgrades need to be scarified to a depth of approximately 8 to 12-inches, the moisture content of the scarified soils adjusted to with 3% of their optimum moisture content and the scarified soils compacted to at least 95% of their standard Proctor dry density (ASTM D 698).

The excavated soils, cleaned of all unsuitable/organic materials and rocks greater than 3-inches in nominal size, may be used obtain final grades or stockpiled on-site and reused as utility trench backfill and overlot fill. We recommend the soils to be used as fill be moisture conditioned to within 3% of optimum moisture and compacted to at least 95% of the maximum dry density. Imported fill material, if required, should be approved by the geotechnical engineer prior to use.

We recommend all final cut and fill slopes be constructed with 3H:1V slopes or flatter. It is our opinion temporary cut slopes can be cut to slopes of 2H:1V.

As noted, groundwater was encountered in multiple borings across the site. Temporary dewatering of these excavations will be necessary if groundwater is encountered or surface drainage is allowed to accumulate in the excavations. Contractors working on the project should be prepared to have equipment on-site that will lower and maintain the groundwater level below the base of the excavations. We recommend that the groundwater levels be check prior to construction operations on site. As noted previously the groundwater was typically encountered within the sand and gravel layers encountered on site.

6.3 Utility/Trench Excavation

All utility lines will need to be placed in general accordance with the City of Sheridan Standard Specifications and Details for Street and Utility Construction, current edition. All trench excavation and backfilling should be performed in accordance with the same publication with the following exceptions:

Conventional construction equipment such as tracked excavators should be able to make the required trench excavations within the site soils along the proposed utility alignments.

As noted, groundwater was not encountered in any of the borings on site; however, it may be present in other areas of the site. Earthwork contractors should be prepared for dewatering the excavations and have equipment available that will lower and maintain the groundwater level below the base of the excavations.

If excavation faces are not retained, the excavations should maintain maximum allowable slopes in accordance with *OSHA Regulations (Standards 29 CFR), Part 1926, Subpart P, "Excavations"* (can be found on www.osha.gov). Even with the required OSHA sloping, water seepage or surface runoff can potentially induce side slope erosion or running which could require slope maintenance.

For trench excavations, natural site soils consisting of lean clay can likely be classified as Type B soils with recommended slope laybacks of 1H:1V. The silty sand to sandy gravel soils can be classified as Type C soils with recommended slope layback of 1.5H:1V. These classifications should be considered preliminary and should be verified in the field with additional borings and on a daily basis during construction by the contractor and/or geotechnical engineer.

Excavations deeper than 20 feet and/or in saturated soils or below the groundwater table should be considered on an individual basis. Water levels, due to climatic conditions should be evaluated at the time of construction. If the above trench layback recommendations are not feasible, due to space limitations or other factors, the OSHA rules should be consulted for alternative trench stabilization methods. Trench boxes or shoring in compliance with OSHA rules may be acceptable alternatives.

6.4 Pavement Design

The following pavement sections are designed based on the 1993 AASHTO Empirical Equation for Flexible Pavements and Rigid Pavements. In design calculations, a 20-year design life was used along with a correlation of 1500 x CBR value to estimate the resilient modulus (M_R) anticipated for the remolded subgrade.

We anticipate the traffic loads of the road to increase after construction as more lots are developed. Therefore, a twenty-year, 18 kip ESAL traffic number of 100,000 was used in our analysis. The anticipated traffic will likely consist mainly of high-volume cars and pickup traffic, with weekly heavier garbage truck/delivery truck traffic. Our laboratory testing resulted in a CBR value of 5.2 and 6.7. The lower value was used in our calculations, utilizing the site soils as subgrade material.

Please notify us if any of the parameters used in the pavement design do not adequately define the anticipated conditions.

Based on the above stated information and our analysis, we recommend the following pavement sections be used for this project:

Project Area	Asphalt/Crushed Base Course (in)
Loop Road	3/9 or 4/6

6.4.1 Asphalt Paving Considerations

Prior to placement of base course/new pavement or any fill to obtain final subgrade elevations, the exposed subgrade soils should be scarified to a depth of 12-inches, the moisture content of the scarified soils adjusted to within 3% of the optimum moisture content and compacted to at least 95% of maximum standard Proctor dry density (98% within the top 12-inches of subgrade).

All prepared subgrades should be proof rolled to verify a firm and unyielding subgrade has been obtained prior to the placement of new fill and/or base course materials.

To obtain a firm and unyielding subgrade, on which to construct the new pavement section, scarification and drying of the subgrade soils should be anticipated. This scarification process may need to be repeated over several days in order to allow the soils to dry back to an acceptable moisture content. The earthwork contractor should be made aware of the soil conditions at the site and account for the anticipated subgrade preparation work.

If project schedules do not allow for sufficient time to dry the soil back to acceptable levels, use of a geo-textile stabilization/separation material can be incorporated in the design. The geo-textile should be placed on top of the graded subgrade and below the aggregate base course layer.

Any areas that "pump" under the loaded dump truck should be evaluated by the engineer to determine whether additional excavation and replacement with a coarse clean rock or the use of a geo-textile fabric should be used to stabilize the subgrade. Once the subgrade has been proof rolled and approved by the geotechnical engineer, base course may be placed.

If additional fill is required, the proposed import backfill should be submitted to the geotechnical engineer for approval prior to use.

6.4.2 Asphalt Paving Considerations

The asphalt pavement mix, at a minimum should meet the design criteria as specified in Section 02525 "Asphalt Pavement" of the City of Sheridan Standard Specifications and Details for Street and Utility Construction, current edition. We recommend that the full width and length of the roadway to be paved, have a prime coat applied prior to placement of any asphalt pavement.

6.4.4 Crushed Base Course

Aggregate base course should meet the requirements as outlined in Section 02519 "Crushed Aggregate Base Course" of the City of Sheridan Standard Specifications and Details for Street and Utility Construction, current edition. Aggregate base course should be compacted to a minimum of 98% of the maximum dry density, as determined by ASTM D698 (Standard Proctor), within a moisture content range of ±3% of optimum.

Once complete, the base course should be proof-rolled to verify a firm and unyielding base has been obtained prior to the placement of pavement materials. Any areas that "pump" under the "standard loaded dump truck test" should be evaluated by the engineer to determine whether additional excavation and replacement with a coarse, clean crushed durable rock and/or a geo-textile fabric should be used to stabilize the subgrade. Once the base course has been proof-rolled and approved by the AET's onsite geotechnical engineer, pavement may be placed.

6.5 Preliminary Foundation and Concrete Slab-on-Grade Floor Recommendations

Based on the information obtained from the borings and laboratory testing, as well as our analysis, it is our opinion the structures constructed within the development may be founded on conventional spread footing foundation systems. Based on the subsurface soils encountered in our borings, it appears foundation systems may be placed on the site soils or engineered fill placed during site mass grading provided the recommendations contained herein are followed. Note that site specific additional borings may encounter clay soils which may warrant placement of granular engineered fill below the foundations. Also, deep fills (greater than 10 feet), resulting from the mass grading operations, may require deep foundations such as drilled piers that would extend through the fill and into the natural soils.

Because low plasticity clay soils, such as those encountered at this site, shrink and swell to some extent with normal variations in moisture content, some movements may occur and should be anticipated. To reduce the potential for movement related distress and to provide a uniform bearing surface, we recommend, where the site clays will be present beneath concrete slab-on-grade floors, these floor systems bear on at least 1 or more feet of compacted granular engineered fill material. The granular engineered fill material is not required under slabs where the site sands are exposed at the anticipated construction elevations.

We recommend perimeter drainage systems be included in the design and construction of residences that have basements or crawlspaces. Unless there is sufficient elevation change for the drainage system to drain to a surface outlet, a sump and pump system will be necessary.

Once the overall site mass grading has been completed, additional geotechnical services should be performed on a per lot basis for specific geotechnical recommendations for individual light residential structures.

7.0 CONSTRUCTION CONSIDERATIONS

7.1 Potential Difficulties

7.1.1 Runoff Water in Excavation

Water can be expected to collect in the excavation bottom during times of inclement weather or snow melt. To allow observation of the excavation bottom, to reduce the potential for soil disturbance, and to facilitate filling operations, we recommend water be removed from within the excavation during construction. Based on the soils encountered, we anticipate the groundwater can be handled with conventional sump pumping.

7.1.2 Disturbance of Soils

The on-site soils can be disturbed under construction traffic, especially if the soils are wet. If soils become disturbed, they should be subcut to the underlying undisturbed soils. The subcut soils can then be dried and recompacted back into place, or they should be removed and replaced with drier imported fill.

7.2 Excavation Backsloping

If excavation faces are not retained, the excavations should maintain maximum allowable slopes in accordance with *OSHA Regulations (Standards 29 CFR), Part 1926, Subpart P, "Excavations"* (can be found on www.osha.gov). Even with the required OSHA sloping, water seepage or surface runoff can potentially induce sideslope erosion or sloughing which could require slope maintenance.

7.3 Observation and Testing

The recommendations in this report are based on the subsurface conditions found at our test boring locations. Since the soil conditions can be expected to vary away from the soil boring locations, we recommend on-site observation by a geotechnical engineer/technician during construction to evaluate these potential changes. Soil density testing should also be performed on new fill placed in order to document that project specifications for compaction have been satisfied.

8.0 LIMITATIONS

Within the limitations of scope, budget, and schedule, we have endeavored to provide our services according to generally accepted geotechnical engineering practices at this time and location. Other than this, no warranty, express or implied, is intended.

Important information regarding risk management and proper use of this report is given in Appendix B entitled "Geotechnical Report Limitations and Guidelines for Use."

Appendix A

Geotechnical Field Exploration and Testing
Boring Log Notes
Unified Soil Classification System
Figure 1 – Site Location Map
Figure 2 – Boring Location Map
Subsurface Boring Logs
Sieve Analysis
Swell- Consolidation
Standard Proctors
California Bearing Ratio

Appendix A
Geotechnical Field Exploration and Testing
Report No. 19-20177

A.1 FIELD EXPLORATION

The subsurface conditions at the site were explored by drilling and sampling one (1) standard penetration test boring. The locations of the borings appear on Figure 1, preceding the Subsurface Boring Logs in this appendix.

A.2 SAMPLING METHODS

A.2.1 Split-Spoon Samples (SS) - Calibrated to N_{60} Values

Standard penetration (split-spoon) samples were collected in general accordance with ASTM: D1586 with one primary modification. The ASTM test method consists of driving a 2-inch O.D. split-barrel sampler into the in-situ soil with a 140-pound hammer dropped from a height of 30 inches. The sampler is driven a total of 18 inches into the soil. After an initial set of 6 inches, the number of hammer blows to drive the sampler the final 12 inches is known as the standard penetration resistance or N-value. Our method uses a modified hammer weight, which is determined by measuring the system energy using a Pile Driving Analyzer (PDA) and an instrumented rod.

In the past, standard penetration N-value tests were performed using a rope and cathead for the lift and drop system. The energy transferred to the split-spoon sampler was typically limited to about 60% of its potential energy due to the friction inherent in this system. This converted energy then provides what is known as an N_{60} blow count.

The most recent drill rigs incorporate an automatic hammer lift and drop system, which has higher energy efficiency and subsequently results in lower N-values than the traditional N_{60} values. By using the PDA energy measurement equipment, we are able to determine actual energy generated by the drop hammer. With the various hammer systems available, we have found highly variable energies ranging from 55% to over 100%. Therefore, the intent of AET's hammer calibrations is to vary the hammer weight such that hammer energies lie within about 60% to 65% of the theoretical energy of a 140-pound weight falling 30 inches. The current ASTM procedure acknowledges the wide variation in N-values, stating that N-values of 100% or more have been observed. Although we have not yet determined the statistical measurement uncertainty of our calibrated method to date, we can state that the accuracy deviation of the N-values using this method is significantly better than the standard ASTM Method.

A.2.2 Disturbed Samples (DS)/Spin-up Samples (SU)

Sample types described as "DS" or "SU" on the boring logs are disturbed samples, which are taken from the flights of the auger. Because the auger disturbs the samples, possible soil layering and contact depths should be considered approximate.

A.2.3 Sampling Limitations

Unless actually observed in a sample, contacts between soil layers are estimated based on the spacing of samples and the action of drilling tools. Cobbles, boulders, and other large objects generally cannot be recovered from test borings, and they may be present in the ground even if they are not noted on the boring logs.

Determining the thickness of "topsoil" layers is usually limited, due to variations in topsoil definition, sample recovery, and other factors. Visual-manual description often relies on color for determination, and transitioning changes can account for significant variation in thickness judgment. Accordingly, the topsoil thickness presented on the logs should not be the sole basis for calculating topsoil stripping depths and volumes. If more accurate information is needed relating to thickness and topsoil quality definition, alternate methods of sample retrieval and testing should be employed.

A.3 CLASSIFICATION METHODS

Soil descriptions shown on the boring logs are based on the Unified Soil Classification (USC) system. The USC system is described in ASTM: D2487 and D2488. Where laboratory classification tests (sieve analysis or Atterberg Limits) have been performed, accurate classifications per ASTM: D2487 are possible. Otherwise, soil descriptions shown on the boring logs are visual-manual judgments. Charts are attached which provide information on the USC system, the descriptive terminology, and the symbols used on the boring logs.

The boring logs include descriptions of apparent geology. The geologic depositional origin of each soil layer is interpreted primarily by observation of the soil samples, which can be limited. Observations of the surrounding topography, vegetation, and development can sometimes aid this judgment.

A.4 WATER LEVEL MEASUREMENTS

The ground water level measurements are shown at the bottom of the boring logs. The following information appears under "Water Level Measurements" on the logs:

- Date and Time of measurement
- Sampled Depth: lowest depth of soil sampling at the time of measurement
- Casing Depth: depth to bottom of casing or hollow-stem auger at time of measurement
- Cave-in Depth: depth at which measuring tape stops in the borehole
- Water Level: depth in the borehole where free water is encountered
- Drilling Fluid Level: same as Water Level, except that the liquid in the borehole is drilling fluid

The true location of the water table at the boring locations may be different than the water levels measured in the boreholes. This is possible because there are several factors that can affect the water level measurements in the borehole. Some of these factors include: permeability of each soil layer in profile, presence of perched water, amount of time between water level readings, presence of drilling fluid, weather conditions, and use of borehole casing.

A.5 LABORATORY TEST METHODS

A.5.1 Water Content Tests
Conducted per AET Procedure 01-LAB-010, which is performed in general accordance with ASTM: D2216 and AASHTO: T265.

A.5.2 Atterberg Limits Tests
Conducted per AET Procedure 01-LAB-030, which is performed in general accordance with ASTM: D4318 and AASHTO: T89, T90.

A.5.3 Sieve Analysis of Soils (thru #200 Sieve)
Conducted per AET Procedure 01-LAB-040, which is performed in general conformance with ASTM: D6913, Method A.

A.5.4 Particle Size Analysis of Soils (with hydrometer)
Conducted per AET Procedure 01-LAB-050, which is performed in general accordance with ASTM: D422 and AASHTO: T88.

A.5.5 Unconfined Compressive Strength of Cohesive Soil
Conducted per AET Procedure 01-LAB-080, which is performed in general accordance with ASTM: D2166 and AASHTO: T208.

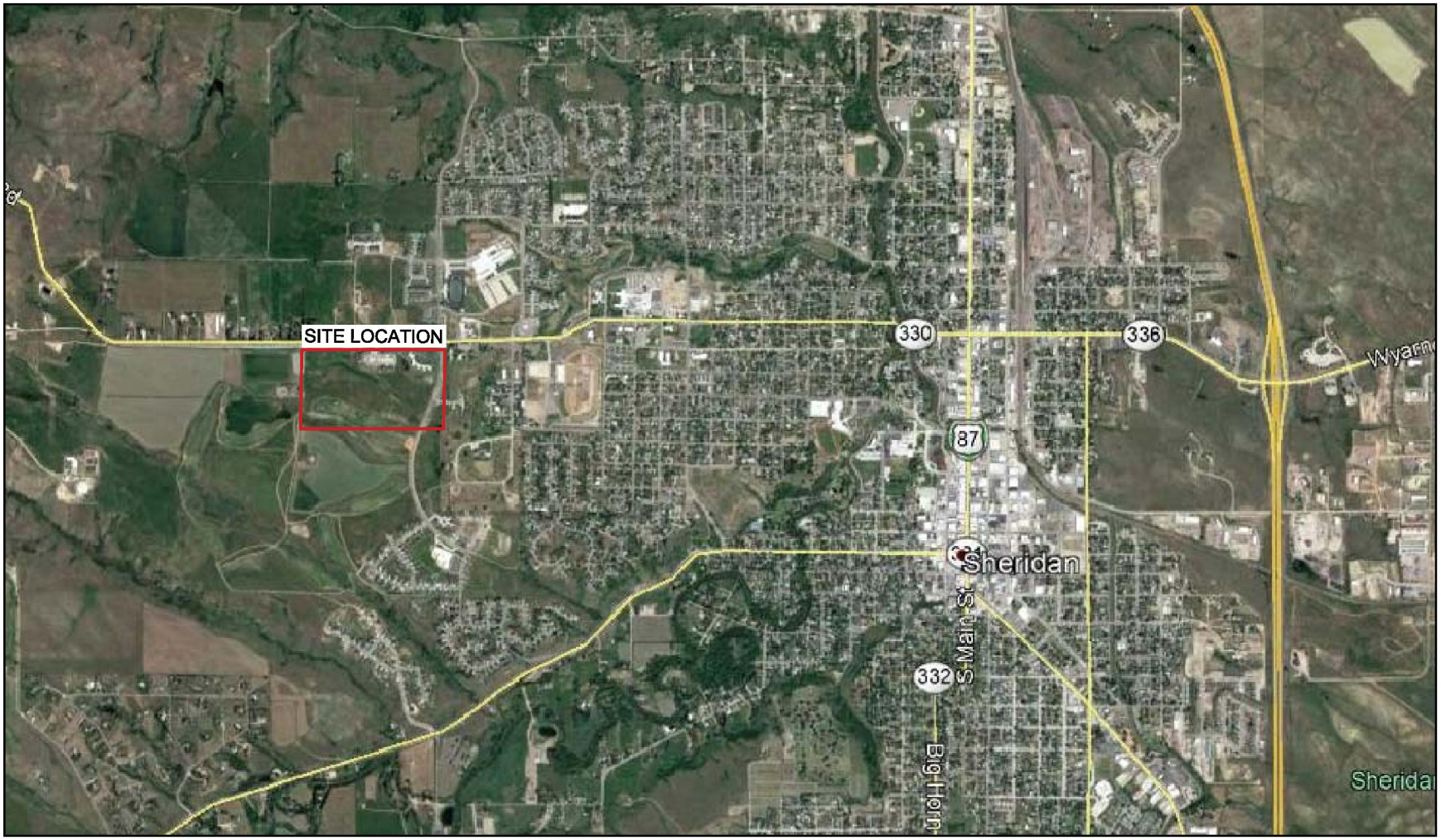
A.5.6 Laboratory Soil Resistivity using the Wenner Four-Electrode Method
Conducted per AET Procedure 01-LAB-090, which is performed using Soil Box apparatus in the laboratory in general accordance with ASTM: G57

A.6 TEST STANDARD LIMITATIONS

Field and laboratory testing is done in general conformance with the described procedures. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

A.7 SAMPLE STORAGE

Unless notified to do otherwise, we routinely retain representative samples of the soils recovered from the borings for a period of 30 days.



SCALE
(Miles)
0 0.5

AMERICAN ENGINEERING TESTING, INC.

PROJECT: HIDDEN BRIDGE DEVELOPMENT		PROJECT NO. 19-20177
SUBJECT: SITE LOCATION MAP		DATE: 5/1/2020
SCALE: 1 INCH = 1/2 Mile	DRAWN BY: BF	REVIEWED BY: JH



SCALE (FEET)

0 280

AMERICAN ENGINEERING TESTING, INC.

PROJECT: HIDDEN BRIDGE DEVELOPMENT		PROJECT NO. 19-20177
SUBJECT: BORING LOCATION MAP		DATE: 5/1/2020
SCALE: 1 INCH = 280 FEET	DRAWN BY: BF	REVIEWED BY: JH

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-1**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3943.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-200
0	**TOPSOIL** lean clay, with gravel/cobbles, dark brown, organics	Topsoil			AUGER						
1		Fort Union Formation									
2	**LEAN TO FAT CLAY** with sand, mottled light blue/gray, oxidized in fractures, stiff(CL-CH)										
3			13	M	MC	9	23	119	38	22	
4	mottled brown/blue/grey - oxidized in fractures										
5			14	M	MC	12					
6											
7	**CLAYEY SAND** mottled brown/blue/gray, dense to very dense (SC)										
8			32	M	MC	18	15				83
9											
10			56	M	MC	18					
11											
12											
13	heavy oxidiation in fractures		78/.9	M	MC	18	15	115			
14											
15			78	M	MC	12					
16	trace coal										
	Bottom of Boring										

DEPTH: **15.0** DRILLING METHOD: **3.25" HSA**

BORING COMPLETED: **3/31/20**

CC: **BT** CA: **BF** Rig: **RC-1**

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
3/31/20	**1345**	**16.5**	**15.0**	**NA**	**NA**	**None**

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-2**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3926.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-200
1	**TOPSOIL** lean clay, with gravel, dark brown, organics	Topsoil			AUGER						
3			29	D	MC	12					
5	**SANDY LEAN CLAY** trace gravel, light brown, very stiff (CL)	Alluvial Deposits	20	M	MC	12	2				5
7	**SAND** brown, medium dense to very dense (SW) with gravel and cobbles		80	M	MC	12					
10			85/.8	M-D	MC	12	1				
13			50/.5	M	MC	9					
15			50/.3	W	MC	6	4				
18	with clay										
20			49	W	MC	9					
23	**CLAYSTONE** gray, hard (Textural Classification (CL-CH))	Fort Union Formation									
25			77/.9	W	MC	9	29	89			
26	Bottom of Boring										

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
25.0	**3.25" HSA**							
		3/31/20	**1510**	**26.0**	**25.0**	**NA**	**NA**	**15.9**
		5/6/20	**1155**	**26.0**	**25.0**	**NA**	**NA**	**16.1**
BORING COMPLETED:	**3/31/20**							
CC: **BT**	CA: **BF** Rig: **RC-1**							

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-3**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3925.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-200
0	**TOPSOIL** lean clay, dark brown, with gravel	Topsoil			AUGER BULK						
1	**SANDY LEAN CLAY** light brown, very stiff (CL)	Alluvial Deposits									
2											
3			27	M	MC	12	18	97			
4											
5			30	M	MC	12					
6											
7											
8			30	M	MC	12	13		30	19	
9											
10			33	M	MC	9					
11											
12											
13			26	M	MC	12	17				
14											
15			32	M	MC	9					
16											
17											
18	with sand seams										
19											
20			34	M	MC	9	21				
21											
22											
23	**GRAVELLY SAND** brown, very dense (SP)			▽							
24											
25			71/.8	W	MC	9					
26											
27											
28											
29	**SILTY SAND** orange, oxidized, very dense (SM)	Fort Union Formation									
30			50/.3	W-M	MC	12	16	114			
	Bottom of Boring										

DEPTH:	DRILLING METHOD
30.0	**3.25" HSA**

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
3/31/20	**1710**	**30.3**	**30.0**	**NA**	**NA**	**23.8**

BORING COMPLETED: **3/31/20**

CC: **BT** CA: **BF** Rig: **RC-1**

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-4**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3930.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-200
1	**TOPSOIL** lean clay, with gravel, dark brown, with organics	Topsoil			AUGER						
2	**GRAVEL** with cobbles/sand, light brown, medium dense (GP)	Alluvial Deposits									
3			30	M	MC	6					
4											
5	**CLAYEY SAND** trace gravel and cobbles, brown, medium dense (SC)		20	M	MC	6	18				
6											
7											
8	**GRAVELLY SAND** with cobbles, dark brown, very dense (SP)		90/.9	M	MC	9	3				6
9											
10	**SAND** with gravel, with clay seams, dense to medium dense (SP)		34	M	MC	12	13	115			
11											
12											
13			15	W	MC	9					
14											
15	**SANDY LEAN CLAY** brown, oxidized, hard (CL)	Fort Union Formation	31	W	MC	12					
16											
	Bottom of Boring										

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
15.0	**3.25" HSA**	**3/31/20**	**1212**	**16.5**	**17.1**	**NA**	**NA**	**16.7**
		5/6/20	**1200**	**16.5**	**17.1**	**NA**	**NA**	**13.9**
BORING COMPLETED:	**3/31/20**							
CC: **BT**	CA: **BF** Rig: **RC-1**							

AMERICAN
ENGINEERING
TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-5**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3928.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-200
1	**TOPSOIL** sandy lean clay, dark brown, with gravel and cobbles	Topsoil			AUGER						
2	**SANDY LEAN CLAY** light brown, very stiff (CL)	Alluvial Deposits									
3			39	D	MC	9	10	98			
4											
5			22	M	MC	12					
6											
7											
8			24	M	MC	12	17		39	25	
9											
10			27	M	MC	9					
11											
12											
13			30	M	MC	12	23	101			
14											
15			22	M	MC	12					
16											
	Bottom of Boring										

DEPTH:	DRILLING METHOD
15.0	**3.25" HSA**

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
3/31/20	**1305**	**16.5**	**15.0**	**NA**	**NA**	**None**

BORING COMPLETED: **3/31/20**

CC: **BT** CA: **BF** Rig: **RC-1**

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-6**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3959.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-200
0	**TOPSOIL** sandy lean clay, with gravel, with organics, dark brown	Topsoil			AUGER BULK						
1		Alluvial Deposits									
2	**SANDY LEAN CLAY** trace gravel, light brown, hard (CL)										
3			38	M	MC	9	9				
4											
5	**GRAVEL** with sand, with cobbles, light brown, very dense (GP)		78/.7	M	MC	0					
6											
7											
8			50/.5	M	MC	3					
9											
10	**WEATHERED CLAYSTONE** with sand, mottled brown/gray, oxidized, (Textural Classification - CL)	Fort Union Formation	75	M	MC	18	15	101			
11											
12											
13			77	M	MC	18					
14											
15	less weathered, less oxidation, trace lignite seams		85/.9	~~M~~ W	MC	18	15	109	29	22	73
16											
17											
18											
19											
20			50/.5	M	MC	12					
21											
22											
23											
24											
25			50/.3	W	MC	12					
26											
27	**COAL** weathered, clayey, black, hard										
28											
29											
30			48	W	MC	9	31		61	41	53
31											
	Bottom of Boring										

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
30.0	**3.25" HSA**	**4/1/20**	**845**	**31.5**	**31.0**	**NA**	**NA**	**17.0**
		5/6/20	**1150**	**31.5**	**31.0**	**NA**	**NA**	**15.3**
BORING COMPLETED:	**4/1/20**							
CC: **BT**	CA: **BF** Rig: **RC-1**							

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-7**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3942.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-200
0	**TOPSOIL** lean clay, with gravel, with organics, dark brown	Topsoil			AUGER						
1	**LEAN CLAY** with sand, light brown, very stiff (CL)	Alluvial Deposits									
2											
3			26	M	MC	12					
4											
5			28	M	MC	12	13	95			
6											
7											
8			32	M	MC	12					
9											
10			28	M	MC	12	14	87	39	23	
11											
12											
13			32	M	MC	12					
14											
15			35	M	MC	18	22	94			
16											
17											
18	**CLAYEY SAND** mottled gray/brown, oxidized, medium dense (SC)										
19											
20			22	M	MC	18					
21											
22											
23	**SAND** with gravel, brown, very dense (SP)										
24											
25			60	M-W	MC	12	11				10
26											
27	**CLAYEY SAND** mottled grey/brown, oxidized, very dense (SC)	Fort Union Formation									
28	**LIGNITE** dark gray/black, clayey										
29											
30			50/.4	M	MC	9					
31											
	Bottom of Boring										

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
30.0	**3.25" HSA**	**4/1/20**	**1045**	**30.9**	**30.0**	**NA**	**NA**	**None**
BORING COMPLETED:	**4/1/20**							
CC: **BT**	CA: **BF** Rig: **RC-1**							

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: **19-20177** LOG OF BORING NO. **B-8**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3920.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-200
0	**TOPSOIL** lean clay, with gravel, dark brown, organics	Topsoil			AUGER						
1		Alluvial Deposits			BULK						
2	**LEAN CLAY TO FAT CLAY** with sand, light brown, firm to very stiff (CL-CH)										
3			23	M	MC	12	21				
4											
5			10	M	MC	12					
6											
7											
8			17	M	MC	18	26	83			
9				▽							
10			6	M	MC	18					
11											
12											
13			20	M	MC	18	21	103			89
14	trace gravel										
15			21	M	MC	18					
16											
	Bottom of Boring										

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
15.0	**3.25" HSA**	**4/1/20**	**1330**	**16.5**	**15.0**	**NA**	**NA**	**None**
		5/6/20	**1145**	**16.5**	**15.0**	**NA**	**NA**	**9.3**
BORING COMPLETED:	**4/1/20**							
CC: **BT**	CA: **BF** Rig: **RC-1**							

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SUBSURFACE BORING LOG

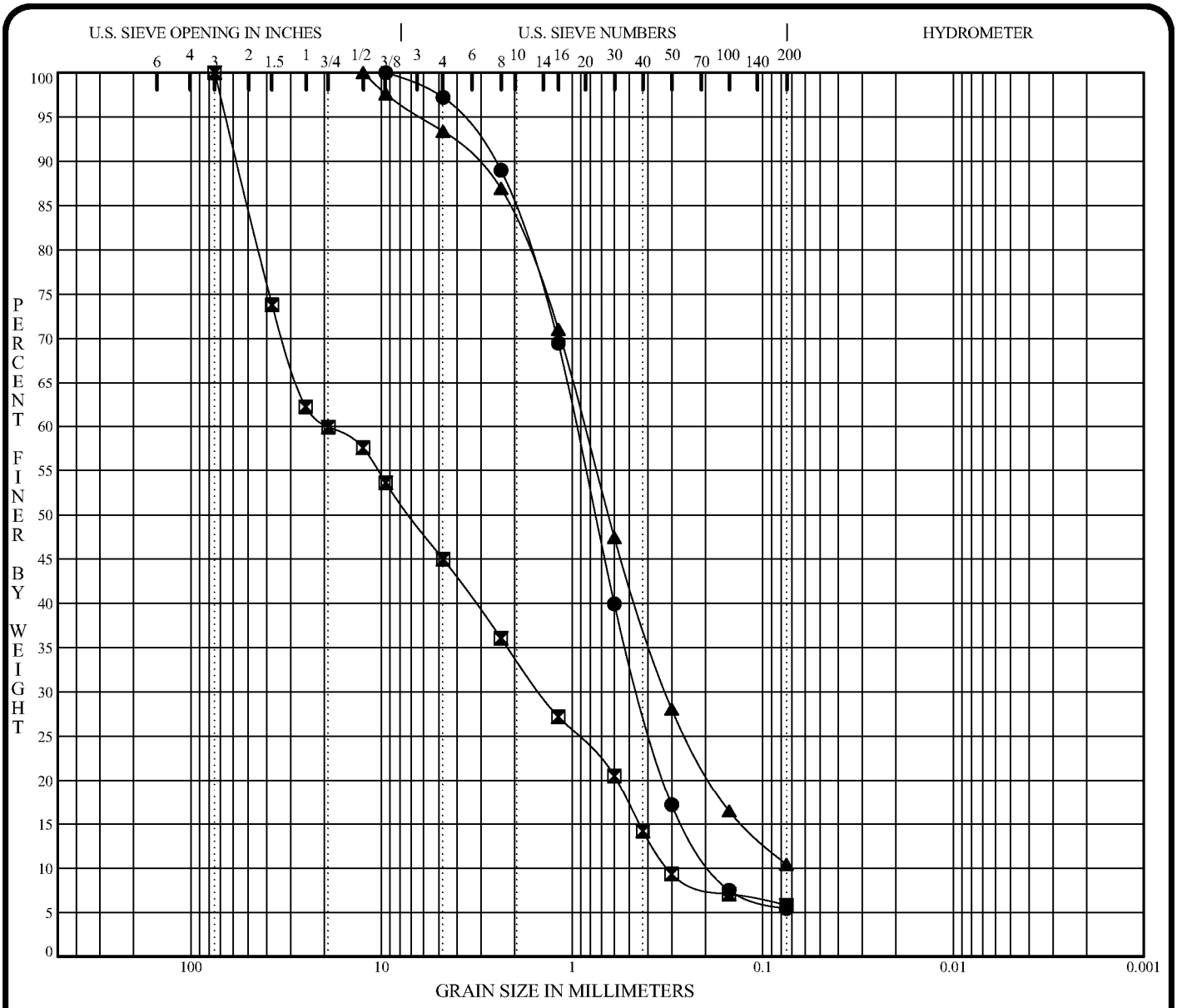
AET JOB NO: **19-20177** LOG OF BORING NO. **B-9**

PROJECT: **Hidden Bridge Development; Sheridan, Wyoming**

SURFACE ELEVATION: **3920.00**

DEPTH IN FEET	MATERIAL DESCRIPTION	GEOLOGY	N	GW	SAMPLE TYPE	REC. IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-200
0	**TOPSOIL** lean clay, dark brown, trace gravel, organics	Topsoil			AUGER						
1											
2	**SANDY LEAN CLAY** with gravel, brown, hard (CL)	Fill									
3			33	M	MC	18					
4											
5			68	M	MC	18	10				
6											
7											
8			41	M	MC	3	14				
9											
10	**LEAN TO FAT CLAY** light brown, very stiff (CL-CH)	Alluvial Deposits	22	M	MC	18					
11											
12											
13			16	M	MC	18					
14											
15			22	M	MC	18	20	111			
16											
	Bottom of Boring										

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
15.0	**3.25" HSA**	**4/1/20**	**1400**	**16.5**	**15.0**	**NA**	**NA**	**None**
BORING COMPLETED:	**4/1/20**							
CC: **BT**	CA: **BF** Rig: **RC-1**							



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	B-2	5.0	Poorly Graded Sand with Clay (SP-SC)	2				1.15	5.3
⊠	B-4	7.5	Sandy Well Graded Gravel with Clay (GW-GC)	3				0.36	61.0
▲	B-7	25.0	Well Graded Sand with Clay (SW-SC)	11				1.69	12.1

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-2	5.0	9.50	0.95	0.443	0.1794	2.8	91.8	5.4	
⊠	B-4	7.5	75.00	19.20	1.469	0.3147	55.0	39.2	5.8	
▲	B-7	25.0	12.50	0.86	0.322		6.6	83.0	10.4	

PROJECT **Hidden Bridge Development; Sheridan, Wyoming** JOB NO. **19-20177**
DATE **4/1/20**

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Material Test Report

Report No: MAT:20-03972-S1

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID	20-03972-S1
Field Sample ID	B-2
Date Sampled	
Source	
Material	Sandy Lean Clay (CL)
Specification	Grad
Sampling Method	Existing Material On-Site
Location	
Date Submitted	

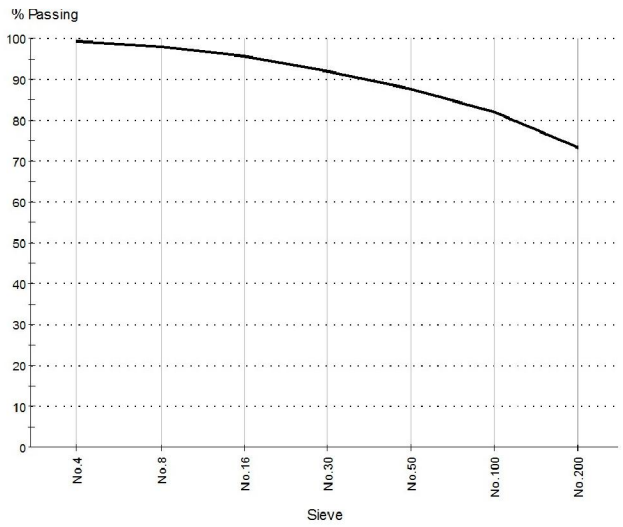
Sample Description:

Sandy Lean Clay (CL)

Atterberg Limit:

Liquid Limit:	41
Plastic Limit:	17
Plasticity Index:	24
Linear Shrinkage (%):	N/A

Particle Size Distribution



Grading: ASTM C 136, ASTM C 117

Date Tested:
Tested By:

Sieve Size	% Passing	Limits
No.4 (4.75mm)	99.3	
No.8 (2.36mm)	98.0	
No.16 (1.18mm)	95.7	
No.30 (600µm)	92.0	
No.50 (300µm)	87.6	
No.100 (150µm)	81.9	
No.200 (75µm)	73.4	

COBBLES	GRAVEL		SAND			FINES (73.4%)	
	Coarse	Fine	Coarse	Medium	Fine		
(0.0%)	(0.0%)	(0.7%)	(1.8%)	(7.7%)	(16.4%)	Silt	Clay

D85: 0.2187 **D60:** N/A **D50:** N/A
D30: N/A **D15:** N/A **D10:** N/A

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Material Test Report

Report No: MAT:20-03972-S1

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID	20-03972-S1
Field Sample ID	B-2
Date Sampled	
Source	
Material	Sandy Lean Clay (CL)
Specification	Grad
Sampling Method	Existing Material On-Site
Location	
Date Submitted	

Other Test Results

Description	Method	Result	Limits
Liquid Limit (%)	AASHTO T 89	41	
Plastic Limit (%)	AASHTO T 90	17	
Plasticity Index	AASHTO T 90	24	
Fineness Modulus	ASTM C 136, ASTM C 117	N/A	
Curvature Coefficient		N/A	
Uniformity Coefficient		N/A	
CBR At 0.1in (%)	ASTM D 1883		
CBR At 0.2in (%)			
Maximum Dry Density (lb/ft³)			
Maximum Dry Unit Weight (lbf/ft³)	ASTM D 698	106.9	
Corrected Maximum Dry Unit Weight (lbf/ft³)		106.9	
Optimum Water Content (%)		17.2	
Corrected Optimum Water Content (%)		17.2	
Method		A	
Preparation Method		Moist	
Retained Sieve No 4 (4.75mm) (%)		0	

Comments

N/A

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Material Test Report

Report No: MAT:20-03972-S2

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID	20-03972-S2
Field Sample ID	B-8
Date Sampled	
Source	
Material	Lean Clay with Sand (CL)
Specification	Grad
Sampling Method	Existing Material On-Site
Location	
Date Submitted	

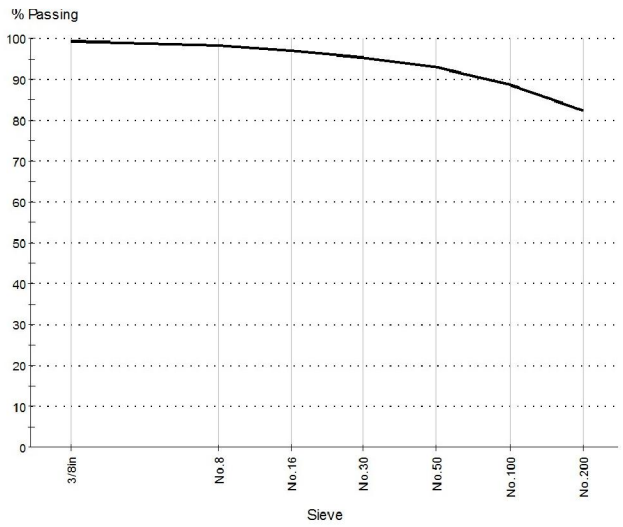
Sample Description:

Lean Clay with Sand (CL)

Atterberg Limit:

Liquid Limit: 39
Plastic Limit: 16
Plasticity Index: 23
Linear Shrinkage (%): N/A

Particle Size Distribution



Grading: ASTM C 136, ASTM C 117

Date Tested:
Tested By:

Sieve Size	% Passing	Limits
3/8in (9.5mm)	99.5	
No.8 (2.36mm)	98.3	
No.16 (1.18mm)	97.0	
No.30 (600µm)	95.5	
No.50 (300µm)	92.9	
No.100 (150µm)	88.8	
No.200 (75µm)	82.2	

COBBLES	GRAVEL		SAND			FINES (82.2%)	
	Coarse	Fine	Coarse	Medium	Fine		
(0.0%)	(0.0%)	(1.1%)	(0.9%)	(3.8%)	(12.0%)	Silt	Clay

D85: 0.1006 **D60:** N/A **D50:** N/A
D30: N/A **D15:** N/A **D10:** N/A

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Material Test Report

Report No: MAT:20-03972-S2

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID	20-03972-S2
Field Sample ID	B-8
Date Sampled	
Source	
Material	Lean Clay with Sand (CL)
Specification	Grad
Sampling Method	Existing Material On-Site
Location	
Date Submitted	

Other Test Results

Description	Method	Result	Limits
Liquid Limit (%)	AASHTO T 89	39	
Plastic Limit (%)	AASHTO T 90	16	
Plasticity Index	AASHTO T 90	23	
CBR At 0.1in (%)	ASTM D 1883		
CBR At 0.2in (%)			
Maximum Dry Density (lb/ft³)			
Maximum Dry Unit Weight (lbf/ft³)	ASTM D 698	106.4	
Corrected Maximum Dry Unit Weight (lbf/ft³)		106.4	
Optimum Water Content (%)		16.9	
Corrected Optimum Water Content (%)		16.9	
Method		B	
Preparation Method		Moist	
Retained Sieve 3/8" (9.5mm) (%)		0	

Comments

N/A

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Material Test Report

Report No: MAT:20-03972-S3

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID	20-03972-S3
Field Sample ID	B-6
Date Sampled	
Source	
Material	Clayey Sand with Gravel (SC)
Specification	Grad
Sampling Method	Existing Material On-Site
Location	
Date Submitted	

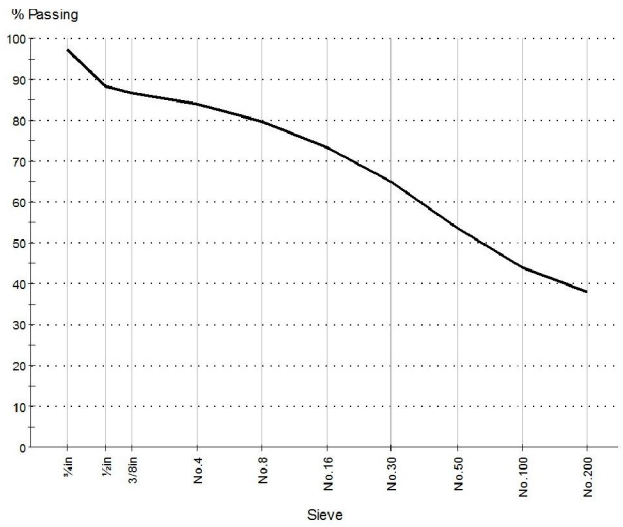
Sample Description:

Clayey Sand with Gravel (SC)

Atterberg Limit:

Liquid Limit: 30
Plastic Limit: 13
Plasticity Index: 17
Linear Shrinkage (%): N/A

Particle Size Distribution



Grading: ASTM C 136, ASTM C 117

Date Tested:
Tested By:

Sieve Size	% Passing	Limits
¾in (19.0mm)	97.4	
½in (12.5mm)	88.3	
3/8in (9.5mm)	86.8	
No.4 (4.75mm)	84.0	
No.8 (2.36mm)	79.8	
No.16 (1.18mm)	73.5	
No.30 (600µm)	65.1	
No.50 (300µm)	53.7	
No.100 (150µm)	44.0	
No.200 (75µm)	37.9	

COBBLES	GRAVEL		SAND			FINES (37.9%)	
	Coarse (2.6%)	Fine (13.4%)	Coarse (5.7%)	Medium (18.8%)	Fine (21.6%)	Silt	Clay
(0.0%)							

D85: 6.0842 **D60:** 0.4400 **D50:** 0.2303
D30: N/A **D15:** N/A **D10:** N/A

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Material Test Report

Report No: MAT:20-03972-S3

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID	20-03972-S3
Field Sample ID	B-6
Date Sampled	
Source	
Material	Clayey Sand with Gravel (SC)
Specification	Grad
Sampling Method	Existing Material On-Site
Location	
Date Submitted	

Other Test Results

Description	Method	Result	Limits
Liquid Limit (%)	AASHTO T 89	30	
Plastic Limit (%)	AASHTO T 90	13	
Plasticity Index	AASHTO T 90	17	
Fineness Modulus	ASTM C 136, ASTM C 117	N/A	
Curvature Coefficient		N/A	
Uniformity Coefficient		N/A	
CBR At 0.1in (%)	ASTM D 1883		
CBR At 0.2in (%)			
Maximum Dry Density (lb/ft³)			
Maximum Dry Unit Weight (lbf/ft³)	ASTM D 698	115.9	
Corrected Maximum Dry Unit Weight (lbf/ft³)		122.2	
Optimum Water Content (%)		12.4	
Corrected Optimum Water Content (%)		10.5	
Method		B	
Preparation Method		Moist	
Retained Sieve 3/8" (9.5mm) (%)		17	
Specific Gravity (Oversize)		2.65	
Specific Gravity (Fines)		2.65	

Comments

N/A

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Proctor Report

Report No: PTR:20-03972-S1

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

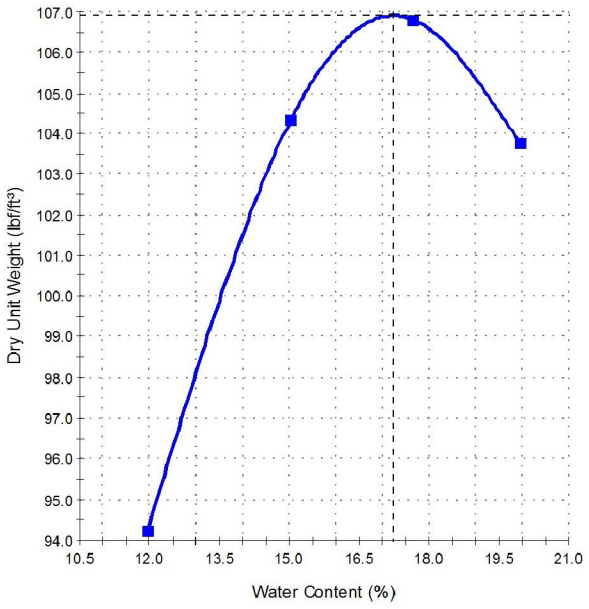
Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID: 20-03972-S1 **Field ID:** B-2
Date Sampled:
Sampling Method: Existing Material On-Site
Material: Sandy Lean Clay (CL)
Specification: Grad
Location:
Sampled By: Unassigned

Dry Unit Weight - Water Content Relationship



Test Results

ASTM D 698

Maximum Dry Unit Weight (lbf/ft³):	**106.9**
Optimum Water Content (%):	**17.2**
Method:	A
Preparation Method:	Moist
Retained Sieve No 4 (4.75mm) (%):	0
Passing Sieve No 4 (4.75mm) (%):	100
Tested By:	
Date Tested:	

AASHTO T 89/T 90

Liquid Limit (%):	41
Plastic Limit (%):	17
Plasticity Index (%):	24
Tested By:	
Date Tested:	

Comments

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Proctor Report

Report No: PTR:20-03972-S2

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

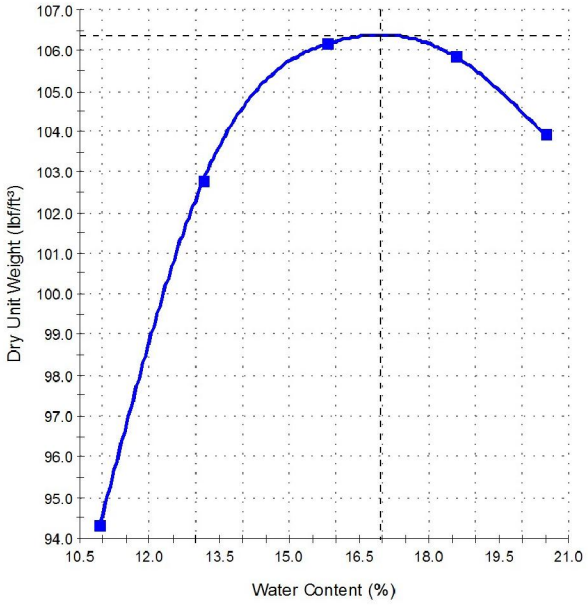
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Date of Issue: 5/7/2020

Sample Details

Sample ID: 20-03972-S2 **Field ID:** B-8
Date Sampled:
Sampling Method: Existing Material On-Site
Material: Lean Clay with Sand (CL)
Specification: Grad
Location:
Sampled By: Unassigned

Dry Unit Weight - Water Content Relationship



Test Results

ASTM D 698

Maximum Dry Unit Weight (lbf/ft³):	**106.4**
Optimum Water Content (%):	**16.9**
Method:	B
Preparation Method:	Moist
Retained Sieve 3/8" (9.5mm) (%):	0
Passing Sieve 3/8" (9.5mm) (%):	100
Tested By:	
Date Tested:	

AASHTO T 89/T 90

Liquid Limit (%):	39
Plastic Limit (%):	16
Plasticity Index (%):	23
Tested By:	
Date Tested:	

Comments

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Proctor Report

Report No: PTR:20-03972-S3

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

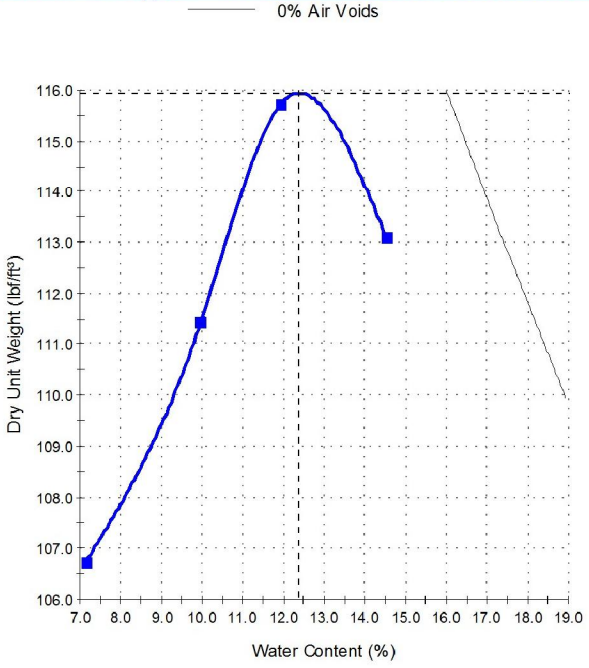
Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID: 20-03972-S3 **Field ID:** B-6
Date Sampled:
Sampling Method: Existing Material On-Site
Material: Clayey Sand with Gravel (SC)
Specification: Grad
Location:
Sampled By: Unassigned

Dry Unit Weight - Water Content Relationship



Test Results

ASTM D 698

Maximum Dry Unit Weight (lbf/ft³):	**115.9**
Optimum Water Content (%):	**12.4**
Method:	B
Preparation Method:	Moist
Specific Gravity (Fines):	2.65
Retained Sieve 3/8" (9.5mm) (%):	17
Passing Sieve 3/8" (9.5mm) (%):	83
Tested By:	
Date Tested:	

ASTM D 4718

Corrected Maximum Dry Unit Weight (lbf/ft³):	**122.2**
Corrected Optimum Water Content (%):	**10.5**
Specific Gravity (Oversize):	2.65
Sieve Size (Oversize):	3/8
Oversize Particles (%):	17

AASHTO T 89/T 90

Liquid Limit (%):	30
Plastic Limit (%):	13
Plasticity Index (%):	17
Tested By:	
Date Tested:	

Comments

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California Bearing Ratio Report

Report No: CBR:20-03972-S2

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

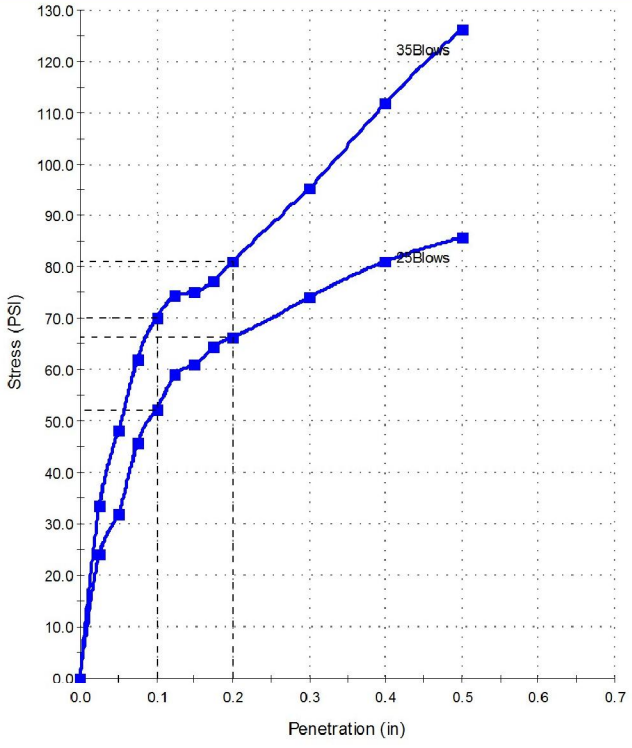
Draft Report - Subject to change pending final review

Date of Issue: 5/7/2020

Sample Details

Sample ID: 20-03972-S2 **Field ID:** B-8
Date Sampled:
Sampling Method: Existing Material On-Site
Source: **Material:** Lean Clay with Sand (CL)
Specification: Grad
Location:
Tested By: **Date Tested:**

Stress vs Penetration



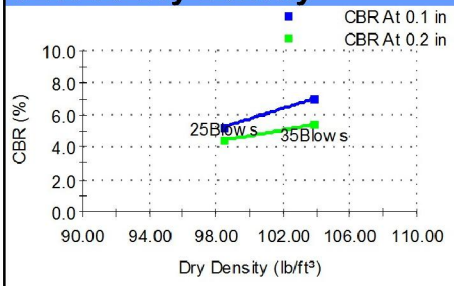
Overall Results

ASTM D 1883

Test Results

Blows		25	35
Comp. Eff.		ASTM D 698	ASTM D 698
Initial MC (%)		17.6	17.6
MC of Top 1in (%)		24.0	23.2
MC After (%)		21.5	18.5
DD Before (lb/ft³)		98.44	103.89
DD After (lb/ft³)			
CBR (%)		5.2	7.0
% MDD		92.5	97.7
Sample Condition		Soaked	Soaked
Immersion Period (h)		96	96
Surcharge (lb)		10.00	10.00
Swell (%)		2.64	1.91

CBR Vs Dry Density



Comments

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California Bearing Ratio Report

Report No: CBR:20-03972-S3

Client: DOWL **CC:**

Project: Hidden Bridge Development
Sheridan Wyoming

Job No: 19-20177

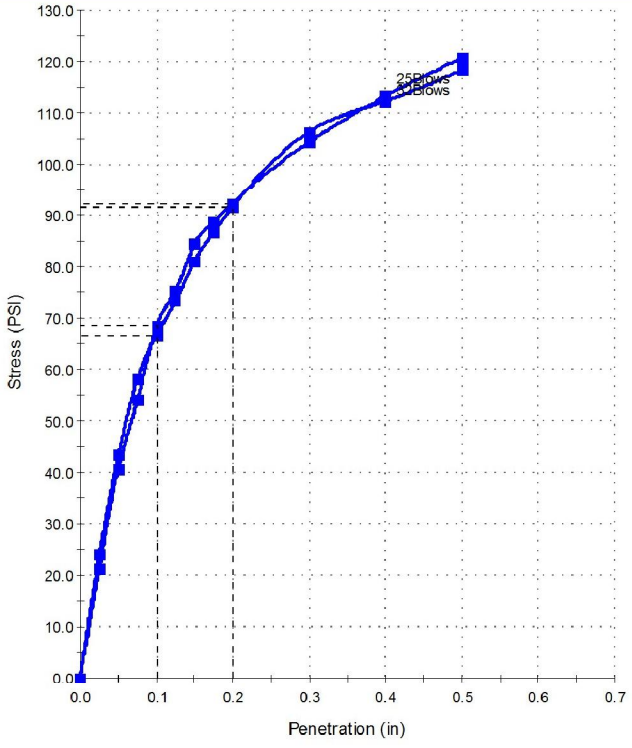
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Date of Issue: 5/7/2020

Sample Details

Sample ID: 20-03972-S3 **Field ID:** B-6
Date Sampled:
Sampling Method: Existing Material On-Site
Source: **Material:** Clayey Sand with Gravel (SC)
Specification: Grad
Location:
Tested By: **Date Tested:**

Stress vs Penetration



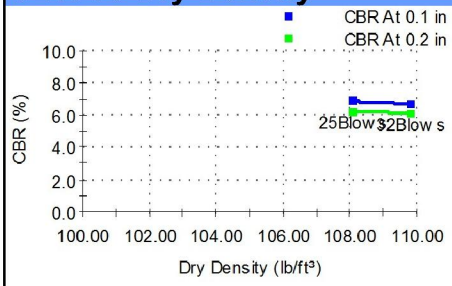
Overall Results

ASTM D 1883

Test Results

Blows		25	32
Comp. Eff.		ASTM D 698	ASTM D 698
Initial MC (%)		12.5	13.0
MC of Top 1in (%)		18.5	62.8
MC After (%)		16.3	16.3
DD Before (lb/ft³)		108.07	109.81
DD After (lb/ft³)			
CBR (%)		6.8	6.7
% MDD		93.2	94.7
Sample Condition		Soaked	Soaked
Immersion Period (h)		96	96
Surcharge (lb)		10.00	
Swell (%)		2.09	2.58

CBR Vs Dry Density

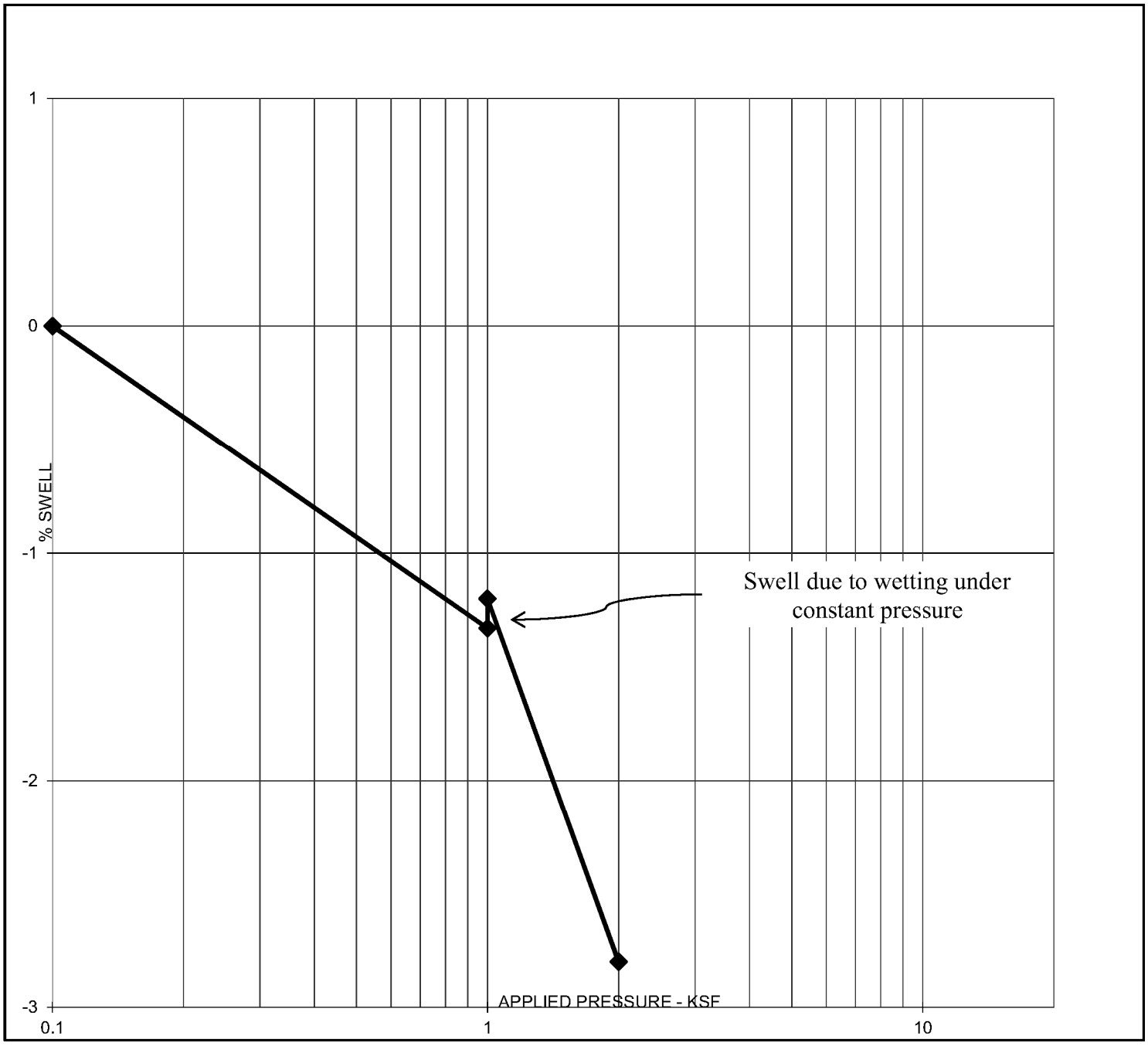


Comments

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AMERICAN ENGINEERING TESTING, INC.

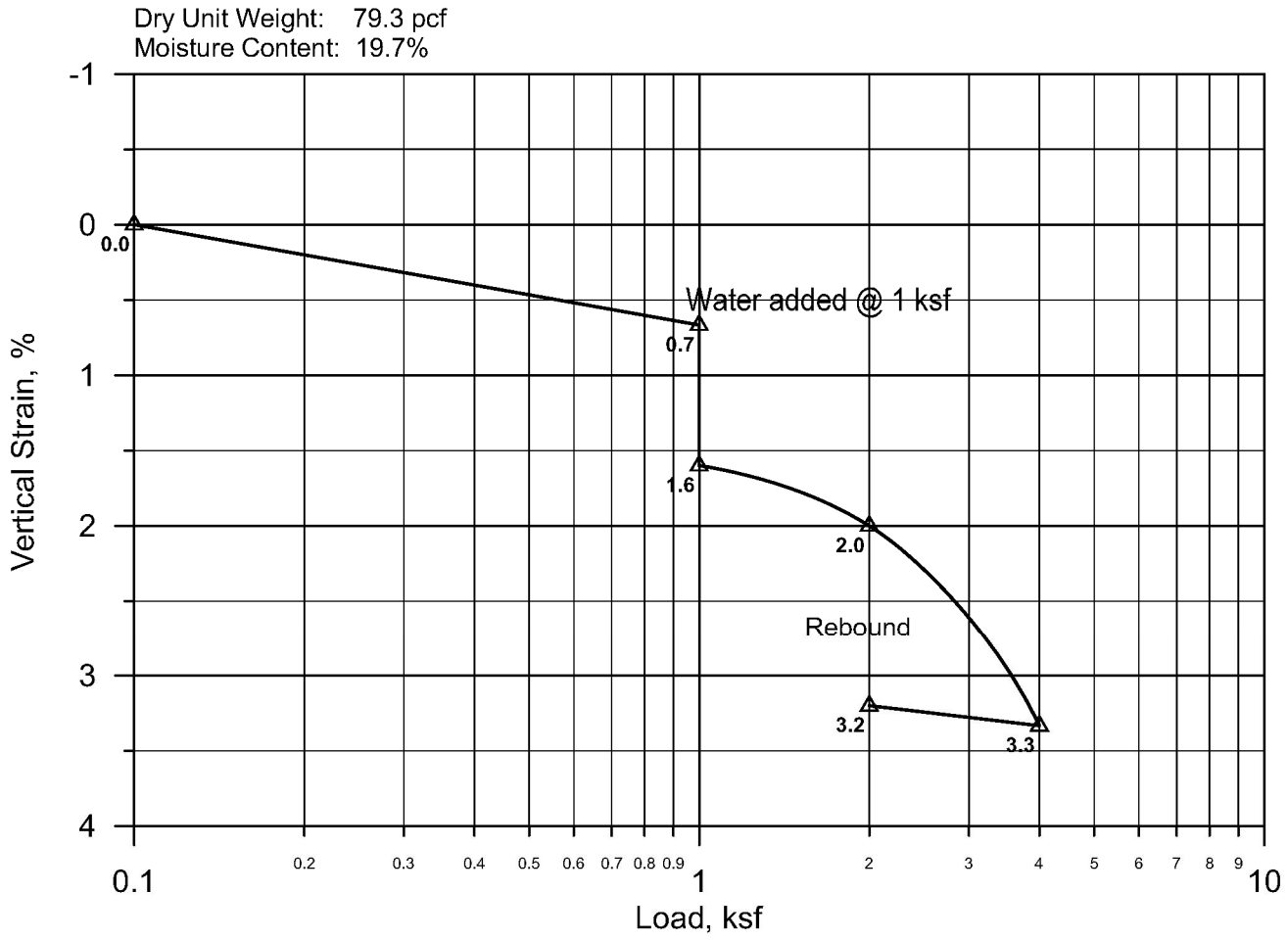
MOISTURE CONTENT:	26.3 percent
DRY UNIT WEIGHT:	82.6 pcf
BORING/DEPTH:	B8 S7
SOIL DESCRIPTION:	Sandy Lean Clay, CL
% Swell:	0.1
Swell Pressure:	1,100 psf



AET Project # 19-20177	**SWELL-CONSOLIDATION TEST RESULTS**	

ONE-DIMENSIONAL, SWELL OR COLLAPSE/CONSOLIDATION TEST RESULTS
ASTM D 4546/2435

Project:	Hidden Bridge Development Sheridan, Wyoming
Client:	Dowl
Project Number:	19-20177
Sample Identification:	B-4-6 @ 15 feet
Sample Classification:	_____ (___)
Date Tested:	4/28/2020
By:	CC



Reviewed By: _____

AMERICAN ENGINEERING TESTING, INC.

Appendix B

Geotechnical Report Limitations and Guidelines for Use

Appendix B
Geotechnical Report Limitations and Guidelines for Use
Report No. 19-20177

B.1 REFERENCE

This appendix provides information to help you manage your risks relating to subsurface problems which are caused by construction delays, cost overruns, claims, and disputes. This information was developed and provided by GBA[1], of which, we are a member firm.

B.2 RISK MANAGEMENT INFORMATION

B.2.1 Understand the Geotechnical Engineering Services Provided for this Report

Geotechnical engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical engineering services is typically a geotechnical engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

B.2.2 Geotechnical Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client.

Likewise, geotechnical engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do <u>not</u> rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. If you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

1 Geoprofessional Business Association, 1300 Piccard Drive, LL14, Rockville, MD 20850
Telephone: 301/565-2733: www.geoprofessional.org, 2019

B.2.3 Read the Full Report
Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. Read and refer to the report in full.

B.2.4 You Need to Inform Your Geotechnical Engineer About Change
Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, always inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

B.2.5 Most of the "Findings" Related in This Report Are Professional Opinions
Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

B.2.6 This Report's Recommendations Are Confirmation-Dependent
The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations only after observing actual subsurface conditions exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.

B.2.7 This Report Could Be Misinterpreted
Other design professionals' misinterpretation of geotechnical engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

B.2.8 Give Constructors a Complete Report and Guidance
Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical engineering report, along with any attachments or appendices, with your contract documents, but be certain to note conspicuously that you've included the material for information purposes only. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about

specific project requirements, including options selected from the report, only from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and be sure to allow enough time to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

B.2.9 Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. Read these provisions closely. Ask questions. Your geotechnical engineer should respond fully and frankly.

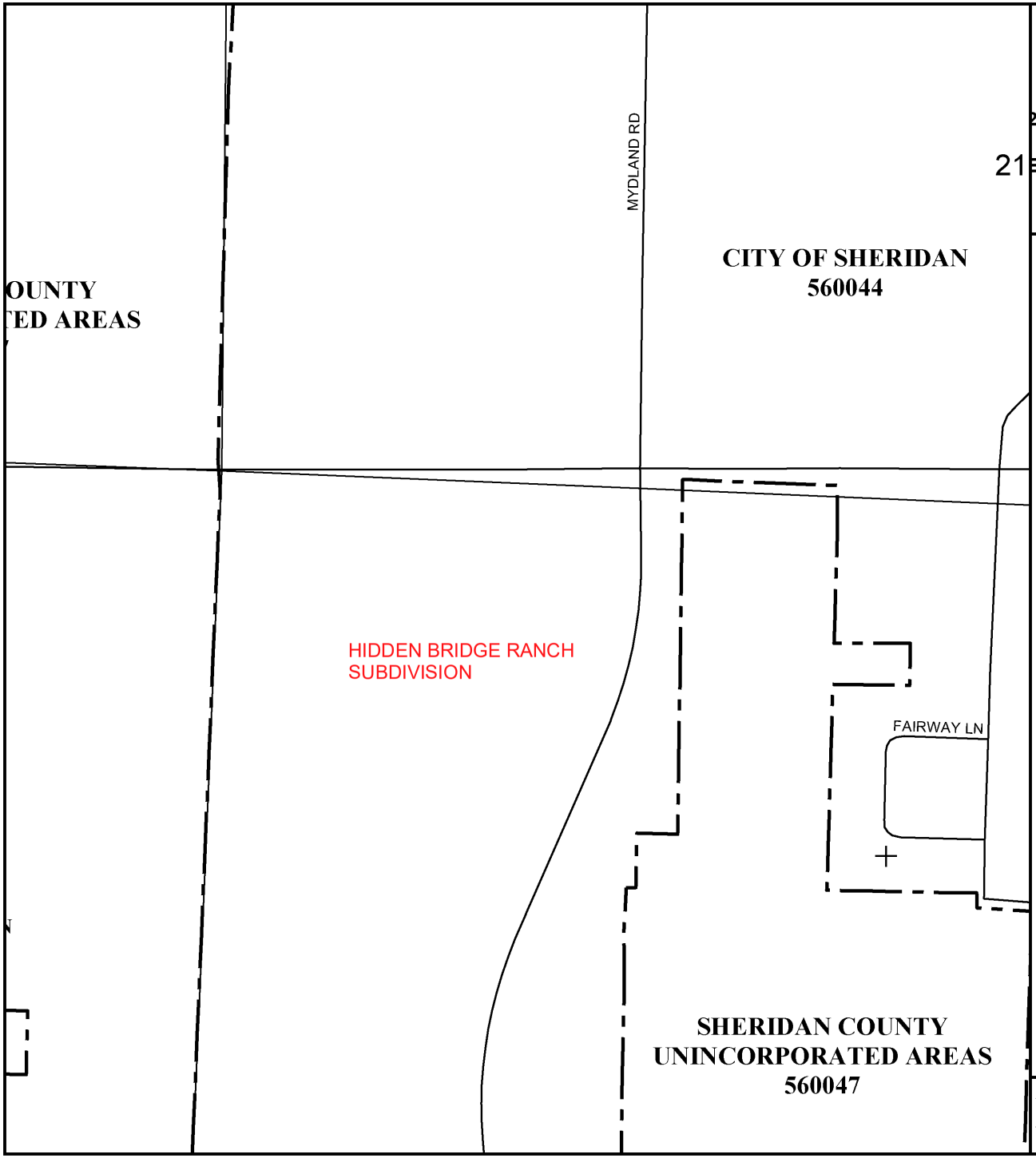
B.2.10 Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical engineering study. For that reason, a geotechnical engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Unanticipated subsurface environmental problems have led to project failures. If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

B.2.11 Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. Geotechnical engineers are not building-envelope or mold specialists.

APPENDIX 5: FEMA FIRM MAP



MAP SCALE 1" = 500'

250 0 500 1000

FEET

21 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0761E

FIRM

FLOOD INSURANCE RATE MAP

SHERIDAN COUNTY, WYOMING AND INCORPORATED AREAS

PANEL 761 OF 1625

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SHERIDAN COUNTY	560047	0761	E
SHERIDAN, CITY OF	560044	0761	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
56033C0761E
EFFECTIVE DATE
JANUARY 16, 2014

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

APPENDIX 6: STORMWATER CALCULATIONS

SCS Runoff Calculations

Basin	Area (acres)	Curve Number (CN)	Basin Slope (%)	Hydraulic Length (ft)	Lag Time (hours)	Time of Concentration, tc (hours)	2 -Year Frequency: Rainfall Depth, P (in)	2 -Year Frequency: Rainfall Excess, Q (in)	2 -Year Frequency: Unit Peak Discharge, qu (csm/in)	2 -Year Frequency: Peak Flow,q (cfs)	5 -Year Frequency: Rainfall Depth, P (in)	5 -Year Frequency: Rainfall Excess, Q (in)	5 -Year Frequency: Unit Peak Discharge, qu (csm/in)	5 -Year Frequency: Peak Flow,q (cfs)	10 -Year Frequency: Rainfall Depth, P (in)	10 -Year Frequency: Rainfall Excess, Q (in)	10 -Year Frequency: Unit Peak Discharge, qu (csm/in)	10 -Year Frequency: Peak Flow,q (cfs)	100 -Year Frequency: Rainfall Depth, P (in)	100 -Year Frequency: Rainfall Excess, Q (in)	100 -Year Frequency: Unit Peak Discharge, qu (csm/in)	100 -Year Frequency: Peak Flow,q (cfs)
Pre-Development Conditions																						
E1	110.10	79	2.3	5530	0.85	1.42	1.61	0.31	219	**11.6**	2.05	0.55	248	**23.3**	2.35	0.73	258	**32.6**	3.46	1.53	277	**72.7**
E2	1.95	79	2.4	460	0.11	0.19	1.61	0.31	787	**0.7**	2.05	0.55	799	**1.3**	2.35	0.73	805	**1.8**	3.46	1.53	823	**3.8**
E3	17.90	87	2.4	1025	0.16	0.27	1.61	0.64	679	**12.1**	2.05	0.97	692	**18.9**	2.35	1.22	699	**23.8**	3.46	2.19	715	**43.8**
									Total	**24.5**			**Total**	**43.5**			**Total**	**58.3**			**Total**	**120.3**
Developed Conditions																						
D1	111.30	81	2.3	5530	0.79	1.32	1.61	0.38	249	**16.3**	2.05	0.64	271	**30.3**	2.35	0.84	279	**41.0**	3.46	1.69	294	**86.1**
D2	18.65	90	2.4	1025	0.15	0.24	1.61	0.77	723	**16.2**	2.05	1.14	733	**24.3**	2.35	1.40	739	**30.1**	3.46	2.41	755	**53.0**
									Total	**32.6**			**Total**	**54.6**			**Total**	**71.1**			**Total**	**139.1**
										8.1				11.0				12.9				18.8

Notes:

Q - Depth of direct runoof, inches

t_c - Time of Concentration in minutes. Calculated with the equation $t_l = 0.6t_c$

t_L - Lag Time in minutes. Calculated with the equation: $t_L = \frac{L^{0.8}(S+1)^{0.7}}{1900\,Y^{0.5}}$

P - Depth of 24-hour precipitation, inches. From Table 3.3 of Sheridan Storm Drainage Design Manual

S - Retention, inches. Calculated with the equiation: S = (1000/CN)-10

Composite Curve Numbers Hydrologic Soil Group: C

Basin	Area	Impervious: Area	Impervious: Coefficient	Gravel: Area	Gravel: Coefficient	Lawn: Area	Lawn: Coefficient	Residential: Area	Residential: Coefficient	Native Grass: Area	Native Grass: Coefficient	Ag Field: Area	Ag Field: Coefficient	Composite Coefficient
E1	110.10	8.62	98	3.68	89	26.75	74	0.00	90	40.32	74	30.73	83	78.9
E2	1.95	0.00	98	0.00	89	0.00	74	0.00	90	1.95	74	0.00	83	74.0
E3	17.90	0.00	98	0.00	89	0.00	74	15.10	90	2.80	74	0.00	83	87.5
D1	111.30	8.62	98	0.13	89	26.75	74	19.33	90	25.74	74	30.73	83	81.1
D2	18.65	0.00	98	0.00	89	0.00	74	18.65	90	0.00	74	0.00	83	90.0

SCS Runoff Calculations

Basin	Area (acres)	Curve Number (CN)	Basin Slope (%)	Hydraulic Length (ft)	Lag Time (hours)	Time of Concentration, tc (hours)	100 -Year Frequency Rainfall Depth, P (in)	Rainfall Excess, Q (in)	Unit Peak Discharge, qu (csm/in)	Peak Flow,q (cfs)	Design Point
Developed Conditions											
Block 1a	0.29	90	2	42	0.01	0.02	3.46	2.41	1334	**1.5**	
Block 1b	0.56	90	1	360	0.10	0.16	3.46	2.41	880	**1.9**	SBn
Block 2a	1.32	90	0.86	580	0.16	0.26	3.46	2.41	737	**3.7**	SBn
Block 2b	1.38	90	1.19	590	0.13	0.22	3.46	2.41	783	**4.1**	SBn
Block 3a	1.39	90	1.19	590	0.13	0.22	3.46	2.41	783	**4.1**	SBn
Block 3b	1.39	90	1.09	550	0.13	0.22	3.46	2.41	787	**4.1**	SBn
Block 4a	1.84	90	4.00	450	0.06	0.10	3.46	2.41	1036	**7.2**	SBn
Block 4b	1.42	74	3.33	300	0.08	0.13	3.46	1.21	896	**2.4**	1
Block 5a	1.93	90	2.73	1100	0.15	0.24	3.46	2.41	782	**5.7**	SBs
Block 5b	1.91	90	3.67	1200	0.13	0.22	3.46	2.41	782	**5.6**	1
Block 6a	2.31	90	1.65	1330	0.22	0.36	3.46	2.41	634	**5.5**	
Block 6b	1.20	90	2.80	1000	0.13	0.22	3.46	2.41	785	**3.5**	2



16 W. 8th Street
P.O. Box 7010
Sheridan, WY 82801
Ph. 307-672-9006
Fax 307-672-5214
Email: dlee@dowl.com

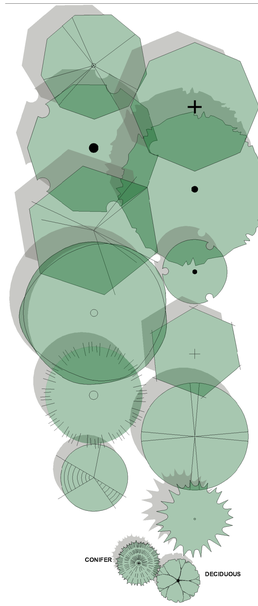


1 LS1 LOT 49 PLANTNG DETAIL
1" = 20'



2 LS1 LOT 100 PLANTNG DETAIL
1" = 20'

LANDSCAPE PLANTING & MATERIALS LEGEND



TREES

ITEM	SIZE	QTY.	CANOPY (H x W) / COMMENTS
ACER TRUN. x A. PLAT. 'JFS-KW202' CRIMSON SUNSET MAPLE	2" CAL. / B&B AS SHOWN		35' H x 25' W ¦ DECIDUOUS RED FALL COLOR
ACER MIYABEI 'MORTON' STATE STREET MAPLE	2" CAL. / B&B AS SHOWN		35' H x 30' W ¦ DECIDUOUS YELLOW FALL COLOR
CARPINUS BETULUS UPRIGHT EUROPEAN HORNBEAM	2" CAL. / B&B AS SHOWN		TO 40' H x 30' W / DECIDUOUS YELLOW FALL COLOR
ULMUS AMERICANA 'VALLEY FORGE' VALLEY FORGE AMERICAN ELM	2" CAL. / B&B AS SHOWN		60' H x 40' W ¦ DECIDUOUS
BETULA POPULIFOLIA 'WHITESPIRE' WHITESPIRE GRAY BIRCH	2" CAL. / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
QUERCUS 'CRIMSCHMIDT' CRIMSON SPIRE OAK	2" CAL. / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
QUERCUS MEUHLENBERGII CHINQUAPIN OAK	2" CAL. / B&B AS SHOWN		TO 70'+ H x 50'+ W / DECIDUOUS YELLOW FALL COLOR
PHELLODENDRON AMURENSE AMUR CORKTREE	2" CAL. / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
PINUS PONDEROSA PONDEROSA PINE	6' HT / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
PINUS FLEXILIS LIMBER PINE	6' HT / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
JUNIPERUS OSTEOSPERMA UTAH JUNIPER	6' HT / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
JUNIPERUS SCOPULORUM ROCKY MOUNTAIN JUNIPER	6' HT / B&B AS SHOWN		40' H x 15' W ¦ DECIDUOUS YELLOW FALL COLOR
EXISTING TREE TO REMAIN	AS NOTED		CONTRACTOR TO PROTECT IN PLACE

SHRUBS & ACCENTS

ITEM	SIZE	QTY.	FORM (H x W) / COMMENTS
CERCOCARPUS LEDIFOLIUS CURLLEAF MOUNTAIN MAHOGANY	4' MIN. HT. / 5 GAL. MULTI-STEM		15' H x 10' W ¦ DECIDUOUS YELLOW FLOWER
SHEPHERDIA ARGENTEA SILVER BUFFALOBERRY	4' MIN. HT. / 5 GAL. MULTI-STEM	4	15' H x 10' W ¦ DECIDUOUS YELLOW FLOWER / RED FRUIT
ARTEMESIA TRIDENTA BIG SAGEBRUSH	3' HT. / 3 GAL. AS SHOWN	59	6' H x 5' W / EVERGREEN SILVER FOLIAGE
ARTEMISIA ABSINTHIUM WORMWOOD	1 GAL. 4'-0" O.C.	52	3' H x 3' W / EVERGREEN YELLOW FLOWER / SILVER FOLIAGE
CHRYSOTHAMNUS VISCIDIFLORUS YELLOW RABBITBUSH	1 GAL. 3'-0" O.C.	58	3' H x 3" W / DECIDUOUS YELLOW FLOWER
POTENTILLA FRUITICOSA 'PINK BEAUTY' PINK BEAUTY CINQUEFOIL	3 GAL. 3'-0" O.C.	68	3' H x 3' W / DECIDUOUS PINK FLOWER
POTENTILLA FRUITICOSA 'McKAYS WHITE' McKAYS WHITE CINQUEFOIL	3 GAL. 3'-0" O.C.	68	3' H x 3' W / DECIDUOUS WHITE & YELLOW FLOWER
ROSA WOODSII WOOD'S ROSE	3 GAL. 3'-0" O.C.	68	5' H x 4' W / DECIDUOUS PINK FLOWER
RIBES AURENUM GOLD CURRANT	3 GAL. 3'-0" O.C.	68	4' H x 4' W / DECIDUOUS YELLOW FLOWER

GROUNDCOVERS

ITEM	SIZE	QTY.	FORM (H x W) / COMMENTS
ARCTOSTAPHYLOS UVA-URSI 'MASS.' KINNIKINICK	1 GAL. 2'-0" O.C.		9" H x 4' W / EVERGREEN WHITE FLOWERS / WINTER BERRIES
JUNIPERUS HORIZONTALLIS CREEPING JUNIPER	1 GAL. 3-0" O.C.		TO 18" H x 4'+ W / EVERGREEN
NATIVE WILDFLOWER BLEND	SEED PER MFG. REC.		
EROSION CONTROL SEED MIX SHEEP / IDAHO FESCUE BLEND	SEED PER MFG. REC.		
SOD LAWN FROM A LOCAL SUPPLIER	SOD ROLL PALLET		

REV	DATE	DESCRIPTION	BY
		REVISIONS	

DOWL
WWW.DOWL.COM
16 West 8th Street
Sheridan, Wyoming 82801
307-672-9006

HIDDEN BRIDGE RANCH PUD
SHERIDAN, WYOMING

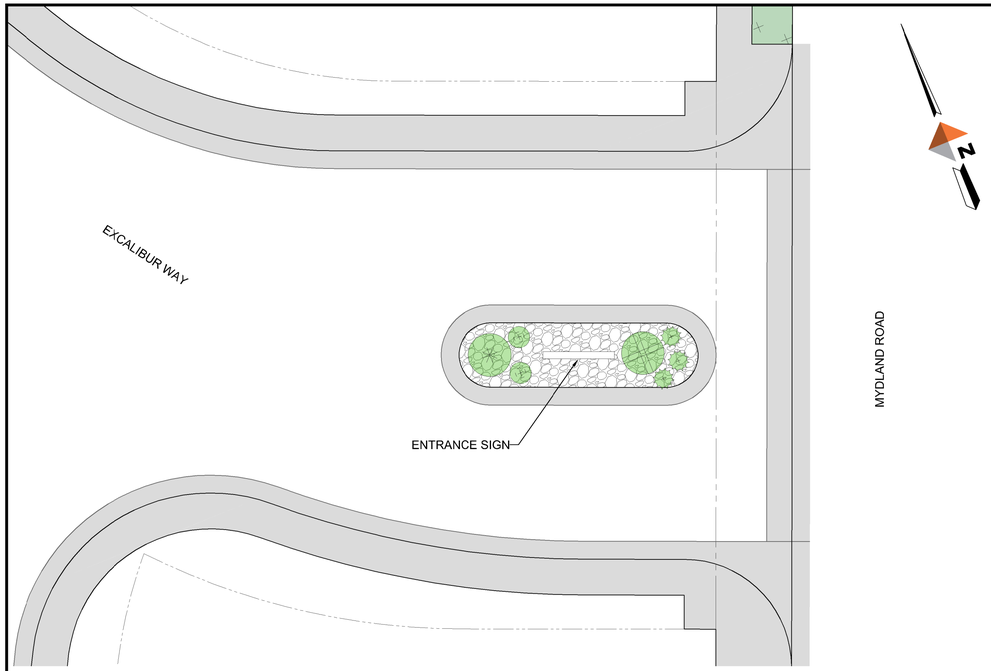
LANDSCAPE PLAN

PROJECT 5028.27012.01
DATE 05/22/2020

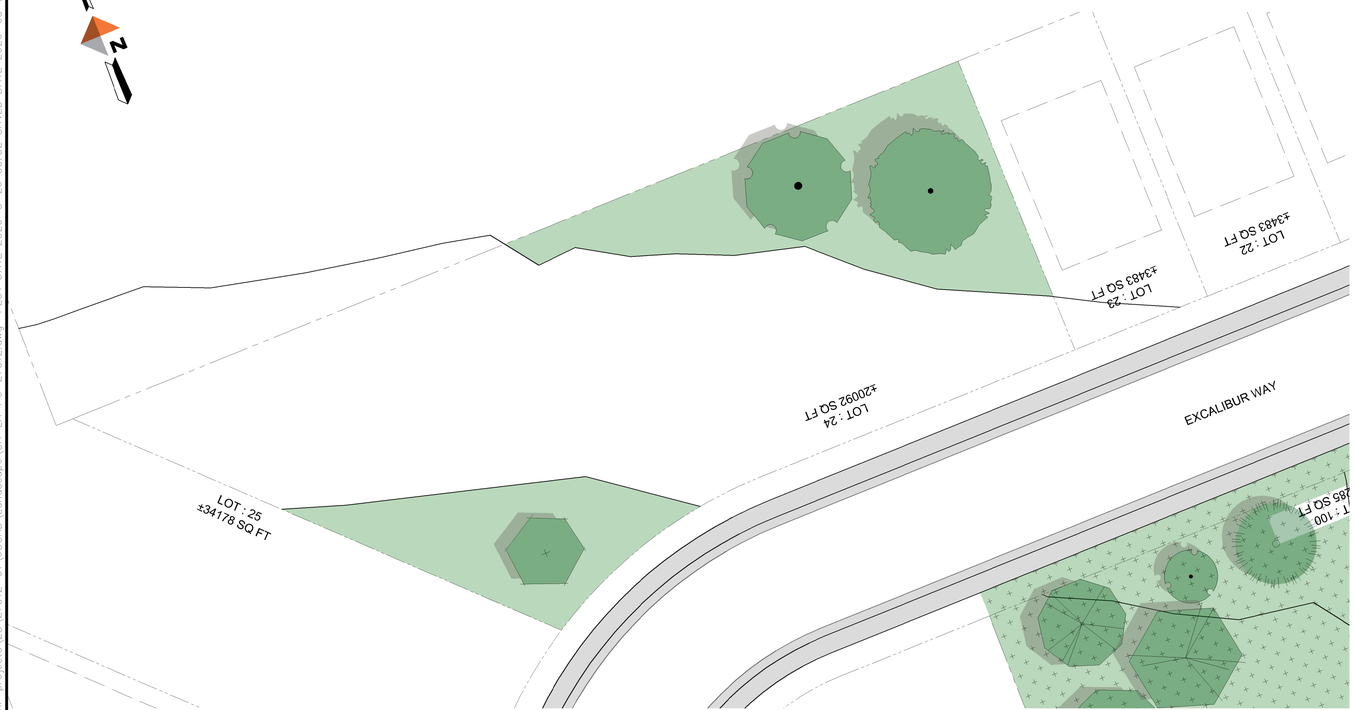
© DOWL 2020

SHEET
LS1

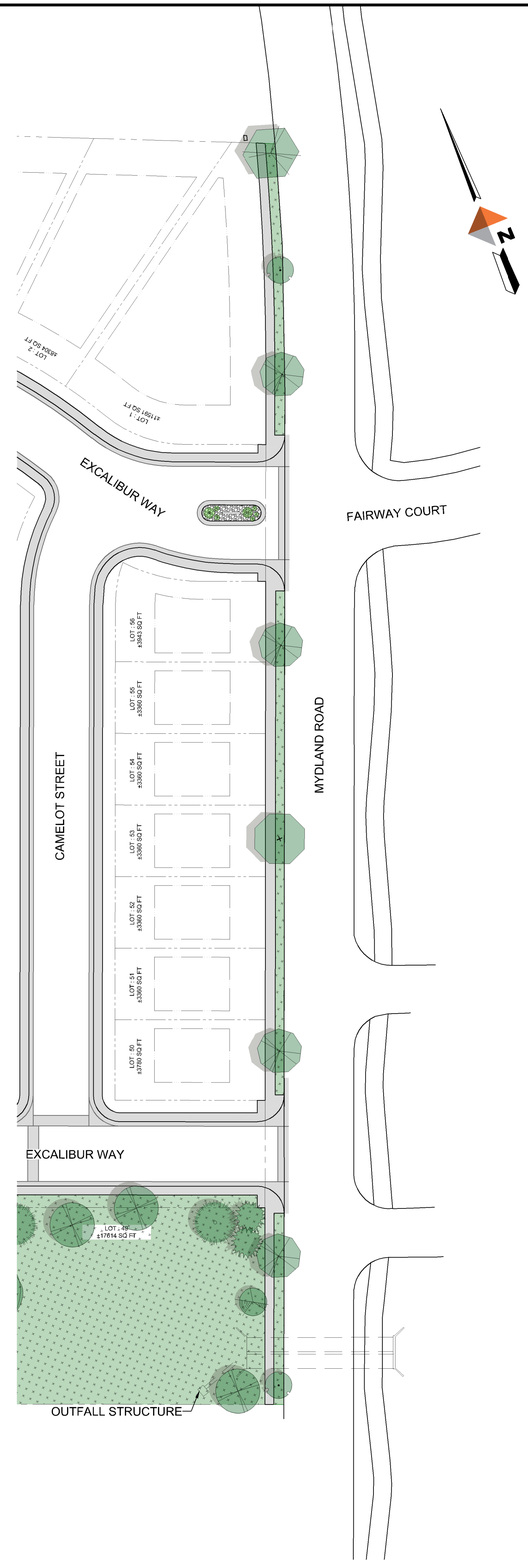
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1 LS2 EXCALIBUR WAY MEDIAN PLANTING DETAIL
1" = 10'



2 LS2 LOT 24 PLANTNG DETAIL
1" = 20'



3 LS2 MYDLAND ROAD PLANTNG DETAIL
1" = 40'

REV	DATE	DESCRIPTION	BY

REVISIONS

DOWL
WWW.DOWL.COM
16 West 8th Street
Sheridan, Wyoming 82801
307-672-9606

HIDDEN BRIDGE RANCH PUD
SHERIDAN, WYOMING

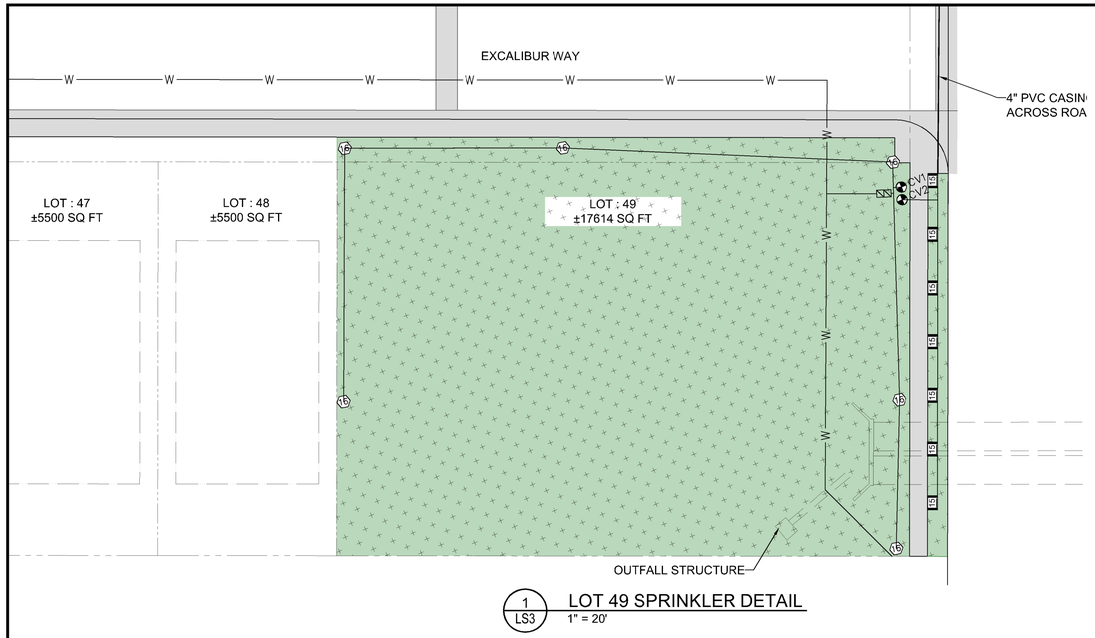
LANDSCAPE PLAN

PROJECT 5028.27012.01
DATE 05/22/2020

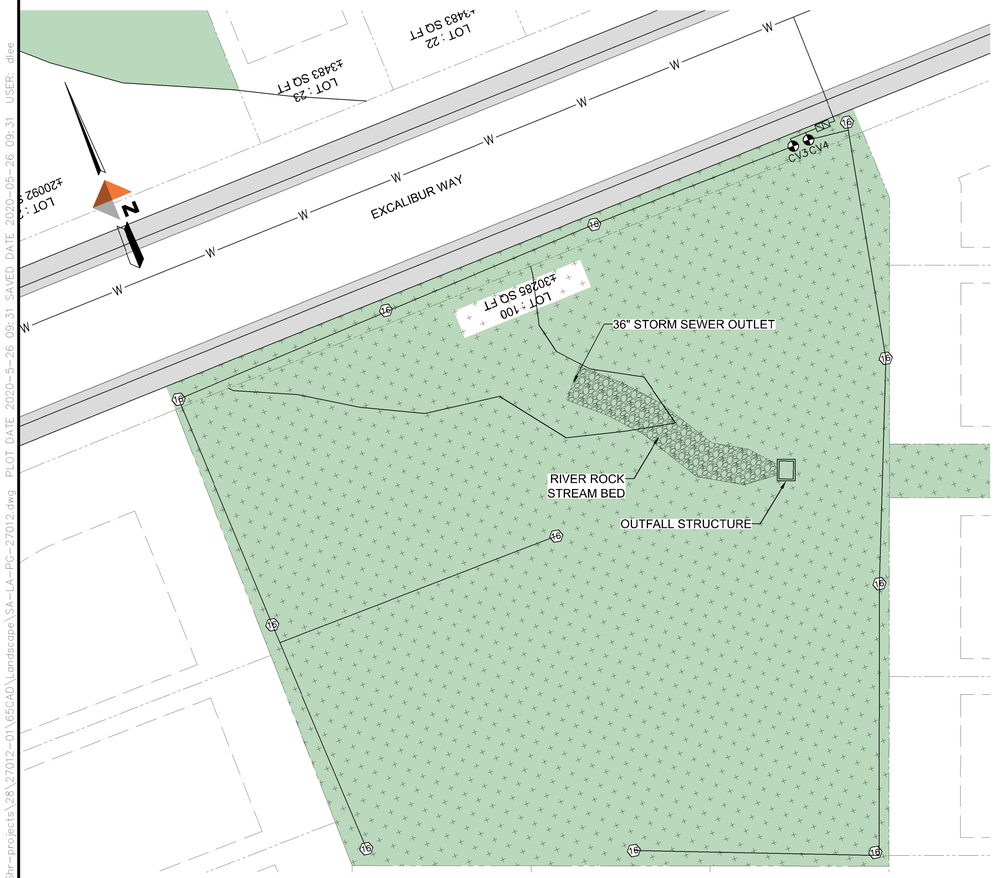
© DOWL 2020

SHEET
LS2

\\SHR-FS\Shr-projects\28\27012-01\65CAD\Landscape\SA-LA-PG-27012.dwg PLOT DATE 2020-5-26 09:32 SAVED DATE 2020-05-26 09:31 USER: dlee



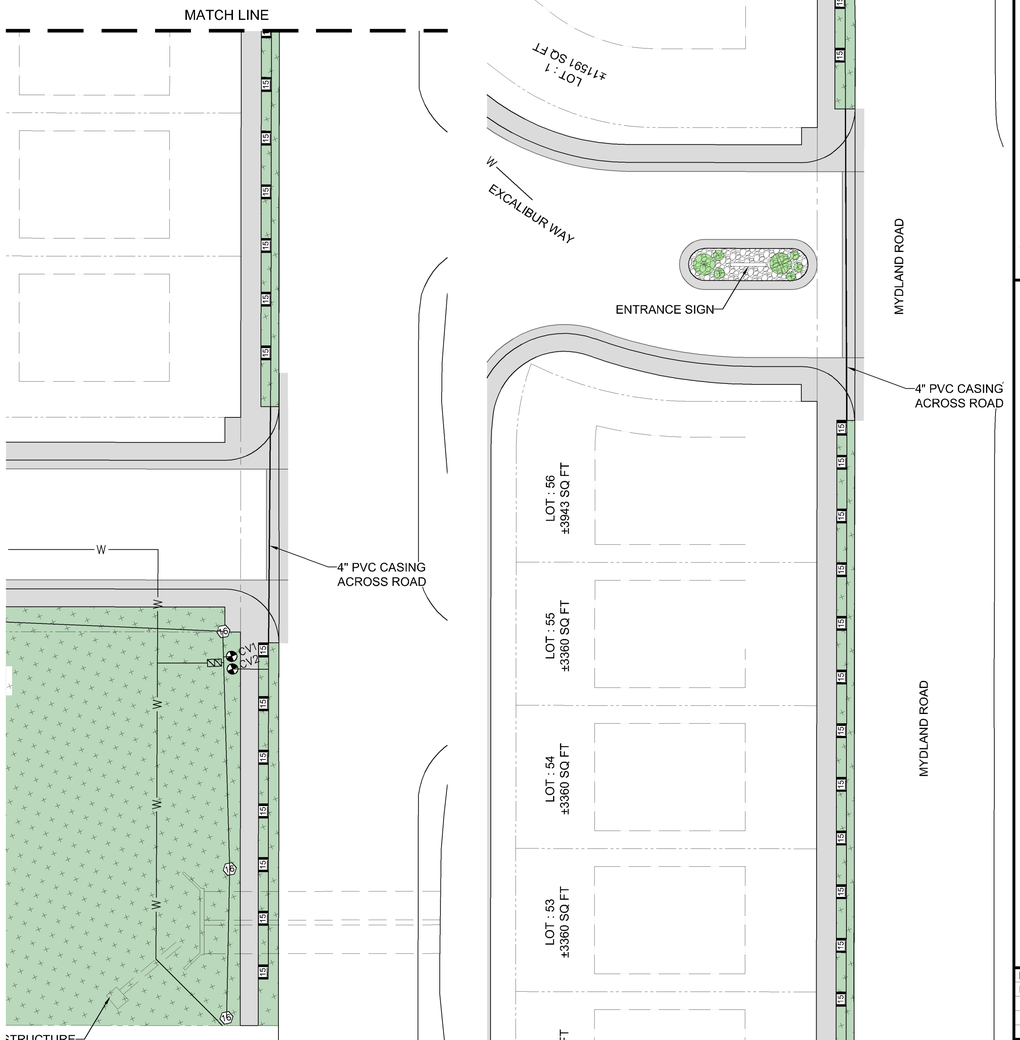
1 LS3 LOT 49 SPRINKLER DETAIL
1" = 20'



2 LS3 LOT 100 SPRINKLER DETAIL
1" = 20'

IRRIGATION LEGEND

- MAINLINE: CLASS 200 PVC, 1 ¼ UNLESS NOTED ON DRAWING
- LATERAL PIPE: CLASS 200 PVC, 1-INCH UNLESS NOTED ON DRAWINGS
- UNCONNECTED PIPE CROSSING
- DRIP TUBING: ½-INCH UV RESISTANT HDPE
- CV1 REMOTE CONTROL VALVE: RAIN BIRD PEB, OR APPROVED EQUAL
- DRIP REMOTE CONTROL VALVE: RAIN BIRD XCZ, OR APPROVED EQUAL
- DRIP FLUSH CAP ASSEMBLY
- A IRRIGATION CONTROLLER: RAIN BIRD ESP-SMTe, OR APPROVED EQUAL
- BACKFLOW PREVENTER
- 4 RAIN BIRD ROTARY FALCON 6504, OR APPROVED EQUAL
  NOZZLE 4, RADIUS: 41', PRESSURE: 70 PSI, FLOW: 4.4 GPM
- 16 RAIN BIRD ROTARY FALCON 6504, OR APPROVED EQUAL
  NOZZLE 16, RADIUS: 63', PRESSURE: 70 PSI, FLOW: 16.9 GPM
- 12 RAIN BIRD 1806 SAM SPRAY HEAD, OR APPROVED EQUAL
  NOZZLE: 180° ARC 12 SERIES HE-VAN, RADIUS 12' PRESSURE: 30, FLOW: 1.18 GPM
- 12 RAIN BIRD 1806 SAM SPRAY HEAD, OR APPROVED EQUAL
  NOZZLE: 90° ARC 12 SERIES HE-VAN, RADIUS 12' PRESSURE: 30, FLOW: 0.59 GPM
- 9 RAIN BIRD 1806 SAM SPRAY HEAD, OR APPROVED EQUAL
  NOZZLE: 15SST 15 STRIP SERIES MPR, PATTERN 5' X 30' PRESSURE: 30, FLOW: 1.21 GPM
- QUICK COUPLER: RAIN BIRD 3-LRC, OR APPROVED EQUAL
- PIPE DIAMETER TRANSITION



3 LS3 MYDLAND ROAD SPRINKLER DETAIL
1" = 20'

REV	DATE	DESCRIPTION	BY

REVISIONS

DOWL
WWW.DOWL.COM
16 West 8th Street
Sheridan, Wyoming 82801
307-672-9006

HIDDEN BRIDGE RANCH PUD
SHERIDAN, WYOMING

IRRIGATION SYSTEM PLAN

PROJECT 5028.27012.01
DATE 05/22/2020

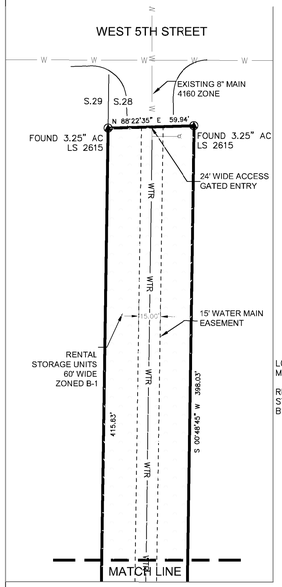
© DOWL 2020

SHEET
LS3

\\SHR-FS\Shr-projects\28\27012-01\65CAD\Landscape\SA-LA-PG-27012.dwg PLOT DATE 2020-5-26 09:31 SAVED DATE 2020-05-26 09:31 USER: dlee

HIDDEN BRIDGE RANCH
PLANNED UNIT DEVELOPMENT

OF LOT B, HIDDEN BRIDGE MINOR SUBDIVISION, CITY OF SHERIDAN AND A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER (NW¼NW¼), SECTION 28, TOWNSHIP 56 NORTH, RANGE 84 WEST, 6TH P.M., SHERIDAN, COUNTY, WYOMING
TOTAL AREA: ±18.55 ACRES





LOCATION MAP
(NO TRUE SCALE)

NOTES:

EXISTING ZONING
MAJORITY OF THIS DEVELOPMENT IS IN THE B-1 ZONE, A LARGE PORTION OF LOT B IS IN THE R-1 ZONE

PROPOSED LAND USE;

RESIDENTIAL AND OPEN SPACE LAND USE TO BE CONSISTENT WITH R-2 RESIDENCE DISTRICT LAND USES

COMMERCIAL LAND USE SIMILAR TO B-1 BUSINESS DISTRICT FOR RENTAL STORAGE BUSINESS USE IN LOT 100 AND A HOME SALES OFFICE IN LOTS 1 AND 2.

TYPICAL STREET SECTION: 36'
TYPICAL STREET SECTION ENTRANCE: 24' BOC (ONE-WAY)
SIDEWALK: 5' CONCRETE ATTACHED

OPEN SPACE:
OPEN SPACE REQUIREMENT FOR LOT B (9.51 ACRES) OF HIDDEN BRIDGE MINOR SUBDIVISION WAS INCLUDED WITH THE HIDDEN BRIDGE MINOR SUBDIVISION.

OPEN SPACE REQUIREMENT FOR THE OTHER TRACT WAS INCLUDED WITH THE 8TH AND 9TH FILING OF CLOUD PEAK RANCH.

SET BACKS ARE:
22' – FRONT
20' – BACK
5' – SIDE
10' – CORNER SIDE

TOTAL NUMBER OF RESIDENTIAL LOTS:	95	
TOTAL NUMBER OF COMMERCIAL LOTS:	1	
AREA OF OPEN SPACE	±1.59 ACRES	8.6%
AREA OF RESIDENTIAL LOTS	±10.89 ACRES	58.7%
AREA OF COMMERCIAL LOTS	±1.25 ACRES	6.7%
AREA OF STEETS	±4.83 ACRES	26%

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1370.00'	123.37'	123.33'	S 19°27'03" W	5°09'34"
C2	130.00'	1.15'	1.15'	N 67°40'58" W	0°30'26"
C3	130.00'	43.05'	42.85'	N 57°56'33" W	18°58'24"
C4	130.00'	43.05'	42.85'	S 38°58'09" E	18°58'23"
C5	130.00'	43.05'	42.85'	S 19°59'44" E	18°58'26"
C6	130.00'	25.70'	25.66'	S 04°50'40" E	11°19'42"
C7	130.00'	32.27'	32.19'	N 07°55'54" E	14°13'27"
C8	130.00'	38.60'	38.46'	S 23°33'01" W	17°00'46"
C9	130.00'	60.55'	60.00'	S 45°23'57" W	26°41'06"
C10	130.00'	70.87'	70.00'	S 74°21'36" W	31°14'14"
C11	330.00'	4.92'	4.92'	S 89°35'40" E	0°51'14"
C12	330.00'	37.50'	37.48'	N 85°54'43" W	6°30'39"
C13	330.00'	37.50'	37.48'	N 79°24'04" W	6°30'39"
C14	330.00'	37.50'	37.48'	N 72°53'25" W	6°30'39"
C15	330.00'	18.82'	18.82'	S 68°00'03" E	3°16'05"
C16	330.00'	18.78'	18.77'	S 64°44'13" E	3°15'36"
C17	330.00'	37.50'	37.48'	S 59°51'05" E	6°30'39"
C18	330.00'	37.50'	37.48'	N 53°20'26" W	6°30'39"
C19	330.00'	46.87'	46.84'	N 46°00'57" W	8°08'19"
C20	330.00'	46.88'	46.84'	S 37°52'38" E	8°08'19"
C21	330.01'	28.29'	28.28'	N 31°21'07" W	4°54'43"
C22	70.00'	47.74'	46.82'	N 48°24'08" W	39°04'28"
C23	70.00'	24.10'	23.98'	S 31°55'13" W	19°43'44"
C24	99.49'	46.17'	45.76'	N 54°43'05" W	26°35'22"
C25	270.00'	43.98'	43.93'	S 61°42'01" E	9°19'58"
C26	270.00'	129.58'	128.34'	N 43°17'08" W	27°29'48"
C27	130.00'	41.82'	41.64'	S 40°32'16" W	18°26'01"
C28	130.00'	21.02'	21.00'	S 26°41'18" W	9°15'54"
C29	130.00'	11.81'	11.81'	S 19°27'12" W	5°12'19"
C30	130.00'	38.28'	38.14'	S 08°24'53" W	16°52'19"
C31	270.00'	90.95'	90.52'	N 80°22'15" W	19°18'04"
C32	270.00'	20.52'	20.51'	N 68°32'37" W	4°21'13"
C33	70.00'	84.00'	79.05'	N 33°33'30" W	68°45'22"
C34	70.00'	108.93'	98.27'	S 45°23'57" W	89°09'33"
C35	70.00'	26.97'	26.81'	N 11°01'02" E	22°04'38"

LEGAL DESCRIPTION

LOT B, HIDDEN BRIDGE MINOR SUBDIVISION, CITY OF SHERIDAN AND A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER (NW¼NW¼), SECTION 28, TOWNSHIP 56 NORTH, RANGE 84 WEST, 6TH P.M., SHERIDAN COUNTY, WYOMING. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT A OF SAID HIDDEN BRIDGE MINOR SUBDIVISION, SAID POINT BEING THE TRUE POINT OF BEGINNING, THENCE N 67°56'11" W, 1049.66 FEET ALONG THE NORTH LINE OF SAID LOT A; THENCE N 64°26'54" W, 75.22 FEET ALONG SAID NORTH LINE TO THE SOUTHEAST CORNER OF LOT C OF SAID HIDDEN BRIDGE MINOR SUBDIVISION; THENCE N 00°49'33" E, 852.50 FEET ALONG THE EAST LINE OF SAID LOT C TO THE SOUTH RIGHT-OF-WAY LINE OF FIFTH STREET; THENCE N 88°22'35" E, 59.94 FEET ALONG SAID SOUTH RIGHT-OF-WAY LINE TO THE WEST LINE OF CLOUD PEAK RANCH NINTH FILING; THENCE S00°48'45" W, 398.03 FEET ALONG SAID WEST LINE TO THE SOUTHWEST CORNER OF SAID CLOUD PEAK RANCH NINTH FILING; THENCE N 89°59'24" E, 713.90 FEET ALONG THE SOUTH LINE OF SAID CLOUD PEAK RANCH NINTH FILING TO THE SOUTH LINE OF CLOUD PEAK RANCH FOURTH FILING; THENCE S 66°22'00" E, 567.34 FEET ALONG SAID SOUTH LINE OF CLOUD PEAK RANCH FOURTH FILING TO THE WEST RIGHT-OF-WAY LINE OF MYDLAND ROAD; THENCE ALONG SAID WEST RIGHT-OF-WAY THROUGH A CURVE TO THE RIGHT, HAVING A RADIUS OF 1370.00 FEET, AN ARC LENGTH OF 123.37 FEET, A DELTA OF 5°09'34", AND A CHORD OF S 19°27'03 W, 123.33 FEET; THENCE S 22°03'22" W, 355.54 FEET ALONG SAID WEST RIGHT-OF-WAY LINE; THENCE S 22°03'35" W, 226.29 FEET ALONG SAID WEST RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING. SUBJECT TRACT CONTAINING ±18.55 ACRES MORE OR LESS

SUBJECT TO ANY PREVIOUSLY RECORDED EASEMENTS, EXCEPTIONS, RESTRICTIONS, COVENANTS AND CONVEYANCES.

CERTIFICATE OF SURVEYOR

I, CLAYTON ROSENLUND , do hereby certify that I am a Registered Land Surveyor, licensed under the laws of the State of Wyoming, that this plat is a true, correct and complete plat of HIDDEN BRIDGE RANCH PLANNED UNIT DEVELOPMENT, as laid out, platted, dedicated and shown hereon, that this plat was made from on accurate survey of said property conducted by me or under my supervision and correctly shows the location and dimensions of all lots, easements and streets of said subdivision in compliance with City of Sheridan regulations governing the subdivision of land.

REGISTERED LAND SURVEYOR

NO. 14250

BASIS OF BEARINGS IS
US STATE PLANE, NAD 83
WYOMING EAST CENTRAL ZONE
DISTANCES ARE GROUND (US SURVEY FEET)
PAF:1.000235

SCALE: 1"=50'

LEGEND

- FOUND 2" AC LS 2615 OR AS NOTED
- AC ALUMINUM CAP
- P.O.B. POINT OF BEGINNING
- R2 ZONE
- B1 ZONE
- OPEN SPACE
- UTILITY EASEMENT
- BOUNDARY OF THIS SUBDIVISION
- SET BACKS/ BUILDING ENVELOPE
- VACATED LOT LINE
- ADJOINING LOT LINE
- INTERIOR LOT LINE
- STREET CENTERLINE
- PROPOSED CURB GUTTER AND SIDEWALK
- SAN NEW 8" SANITARY SEWER
- WTR NEW 8" WATER MAIN
- STM NEW 36" STORM SEWER
- S EXISTING SANITARY SEWER
- W EXISTING WATER MAIN
- EXISTING MANHOLE
- NEW MANHOLE
- EXISTING WATER VALVE
- NEW WATER VALVE
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- ELECTRIC BOX
- WING WALL

CONCEPTUAL PLAN

HIDDEN BRIDGE RANCH
PLANNED UNIT DEVELOPMENT

CITY OF SHERIDAN, WYOMING

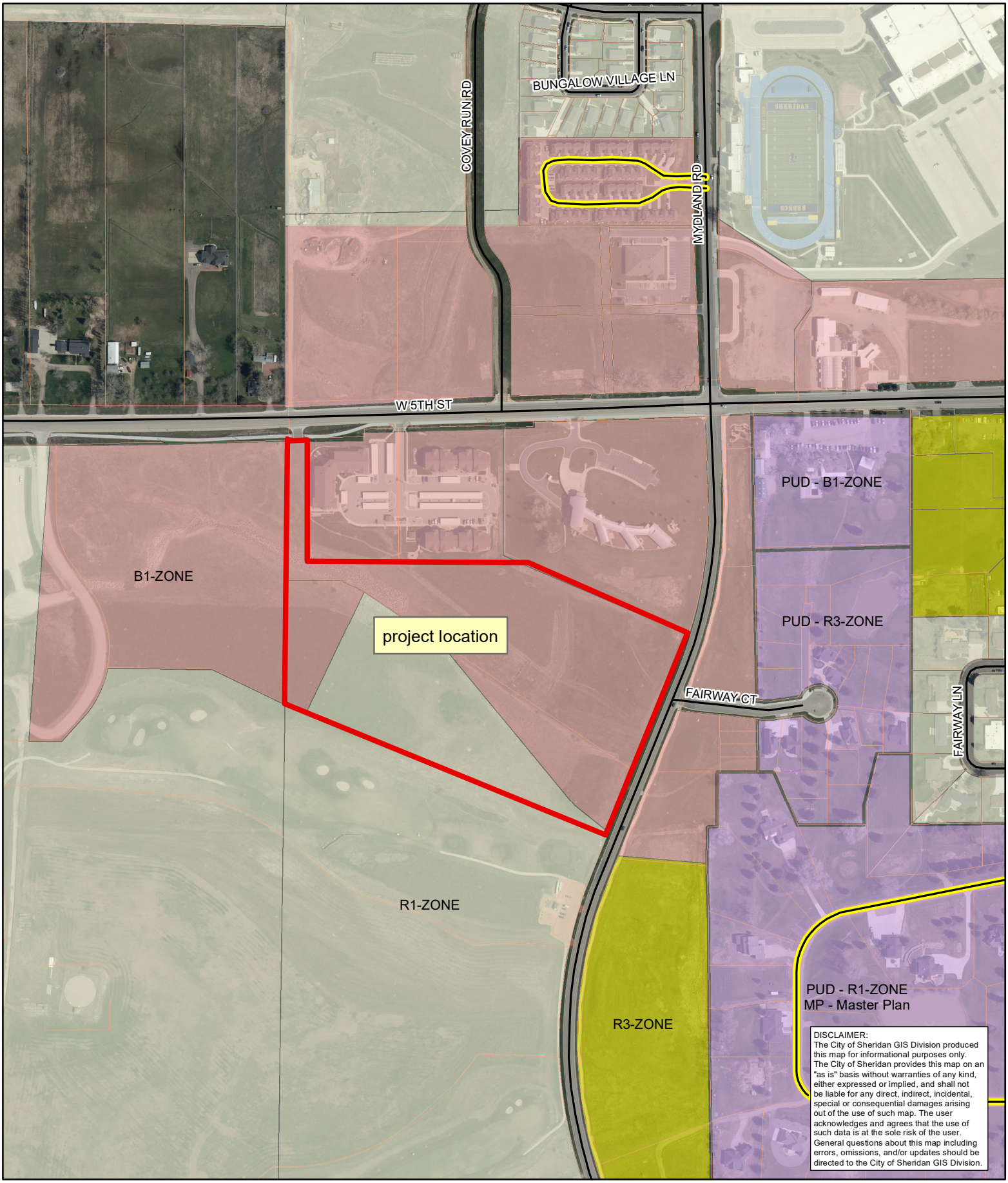
RECORD OWNER: EXCALIBUR CONSTRUCTION

2275 DRY RANCH ROAD SHERIDAN WY,

Cannon Consulting LLC
Making every shot count
201 E 5TH ST
SHERIDAN, WYOMING 82801

DOWL
WWW.DOWL.COM
16 West 8th Street
Sheridan, Wyoming 82801
307-672-9006

DATE OF PREPRATION: APRIL 23 2020 .



CITY OF Sheridan WYOMING

Hidden Bridge rezone

N

0 125 250 500 Feet

Name: sgoodman Date: 06/15/2020

Cloud Peak Ranch

1511 Mydland Road #4
Sheridan, WY 82801
307.752.0798

June 16, 2020

Mr. Sanner
City of Sheridan
Sheridan, WY 82801

Mr. Sanner,

The Cloud Peak Ranch Homeowner's Association is made up of 147 home owners in Sheridan's premier subdivision. The control and uniformity of the very well thought-out and implemented covenants and design standards has provided the residents with increased property values and satisfaction.

Hidden Bridge Ranch PUD is subject to these same covenants, but the average lot size of the 169 lots platted in Cloud Peak Ranch is approximately 9800 square feet. The HOA strongly feels that the lots as represented are too small for this area and don't fit the character or design of Cloud Peak Ranch.

Also, rental storage units are not allowed by the filed covenants and should not be approved by the City.

Sincerely,

Renee Steinhorst

Renee Steinhorst
CPR Property Management
cprpropertymgmt@gmail.com

City of Sheridan
55 Grinell Plaza
Sheridan, WY 82801

April 24, 2020
Re: Hidden Bridge Ranch Development

To Whom It May Concern,

My wife and I recently purchased lot 33, of filing 17, in the Cloud Peak Ranch Subdivision, partly because we understood the covenants would not allow over-building or construction shortcuts that would seriously compromise the feel of the neighborhood and ultimately property values.

As part of the Cloud Peak Ranch HOA, we don't feel the sketch plat for Hidden Bridge Ranch will comply with the covenants required with that property. Homes are supposed to be single family dwellings and rental storage units are definitely not allowed. It is important that plans include infrastructure build-out, building plans, and architectural design that are pre-approved by the HOA for each unit prior to construction. This is the requirement for other properties within Cloud Peak Ranch and should be the same for this development.

In addition, the Hidden Bridge Ranch layout seems extremely dense with 95 building lots. It seems that 70 lots of at least 5000 square feet would be more in line with the area and would not over-build that property.

We felt it necessary to share our concerns, and request that you share them with the Planning Commission and anyone else involved in the approval process of Hidden Bridge Ranch. It's not that we are against development of that property. We just wish to see it done correctly and fairly.

Sincerely,

Jim & Cheryl Schellinger

June 10, 2020

Julie A. Ream
100 Sunrise Lane
Sheridan, Wyoming 82801
307-751-7002
julie.ream1@outlook.com

City of Sheridan, Wyoming
City Council
Planning Commission
55 Grinnell Plaza
Sheridan, Wyoming 82801

RE: HIDDEN BRIDGE RANCH DEVELOPMENT

Dear Sheridan City Councilors and Planning Commissioners:

I am a concerned citizen living in a Cloud Peak Ranch Subdivision governed by the HOA rules that would also govern this new subdivision. It appears by making this a PUD it could bypass many of the setbacks and other requirements typical in the other Cloud Peak Ranch Subdivision Filings. This would be unfortunate if it would be approved, in my opinion, as it would not be compliant with the areas already built and place a regrettable burden on the surrounding area.

This being said the density of 95 homes, each built on a 5100 square foot lot or less, would make it very difficult to build a house with the square footage required by the HOA rules. In my opinion, the total number of houses allowed in this area would need to be about half the number shown. These proposed lots are just too small. In addition, it does not appear the drainage area required for this density of hard surfaces has been met, as well as open spaces.

Nor are commercial endeavors allowed by the HOA rules and I would hope the City would also have a restriction not allowing such in a residential development.

I am not opposed to development, but it needs to be planned to work with the surrounding existing development and not be in conflict with existing property values. Please consider requiring this development to conform to a more standard approach so this area continues to be an attractive area to live.

Thank you for allowing me this opportunity to voice my concerns.

Sincerely,

Julie Ream

Julie A. Ream

Sue Goodman <sgoodman@sheridanwy.net>

Fwd: City Planner & Hidden Bridge Ranch

1 message

Roger Miller <rmiller@sheridanwy.net> Tue, May 5, 2020 at 2:35 PM
To: Mike Jackson <mjackson@sheridanwy.net>, "Lane Thompson - Public Works Director." <lthompson@sheridanwy.net>, Wade Sanner <wsanner@sheridanwy.net>, Sue Goodman <sgoodman@sheridanwy.net>

Mike,

Here is the email that I referred to in our meeting.

Thanks
Mayor Roger Miller

---------- Forwarded message ---------
From: **Riesen Family** <tdriesen@charter.net>
Date: Mon, May 4, 2020 at 3:24 PM
Subject: City Planner & Hidden Bridge Ranch
To: <rmiller@sheridanwy.net>

Hello Mayor Miller,

Today we am reaching out because We live in the Cloud Peak Ranch Subdivision and we have received word that there is a proposal of a new section in our HOA that is going to have 95 small lots. The letter says to contact the City Planner with comments, but we see on the website the City currently doesn't have one. Hopefully you and the council will take these things into consideration:
1) When adding 95 more homes, can the two closest schools take that many more children? We hear that both are full currently and we still have lots for sale.
2) Traffic will dump out onto Myland and that street can't handle that much traffic with the new proposal having two streets on one side, the new market on the other, Fairway Court by the market and the club house for the golf course at rush hour times. Let alone when it is snowing and blowing with no visibility in the winter. When school is in session it is a miracle to get turned left onto Mydland from Bruce Mountain with the school traffic.
That traffic will also be either pumping out on 5th or going through by Highland Park school, into Sparrow Hawk and onto Loucks. Turning onto 5th and Loucks is terrible at high traffic times, especially with school in session. Let alone adding 95 more homes even with only one car per family, or 190 vehicles if they all had two.
3) Given the traffic alone stop lights would need to be addressed for everyone's safety on 5th and Mydland at least if not 5th and Long Drive as well. Safety is key for all the kiddos walking and young drivers we have accessing this area already without adding this many more vehicles to that section.
4) Can emergency vehicles access this new subdivision easily? This builders subdivision across from the Highway Department has very narrow streets. It becomes one lane if anything is parked on the street.
5) Looking at the arc handbook for what they are allowed to build on these lots there is no way a 1500 sq ft ranch is going to fit on a 3300 sq ft lot and meet the setbacks required or any of our covenants we all had to meet for that matter.
6) Why would we want to pack that many lots on a wetlands area for affordable housing when over packing that land is going to lead to problems with homes that those owners won't have the means to fix. Honestly does anyone really have the means to fix your whole homes foundation when it is compromised by a wet lands sinking and flooding problem?
My family and I are asking that all these factors be taken into account. This new section should match what we already have for streets, sidewalks and lot sizes, along with useable green space that is not wet lands. It should also have a regular street onto 5th not a gated outlet to allow for traffic ease on Mydland. With these changes that could be a nice addition to Cloud Peak.
Please let me know if there is another way or person that any of the homeowners in the current Cloud Peak area and surrounding areas can contact.

Thank you
Diana & Tom Riesen

Sent from my iPhone

Sue Goodman <sgoodman@sheridanwy.net>

Fwd: Hidden Bridge Ranch Development.docx

1 message

Wade Sanner <wsanner@sheridanwy.net> Mon, Jun 15, 2020 at 4:31 PM
To: Sue Goodman <sgoodman@sheridanwy.net>

Just another public comment sent to City Council about Hidden Bridge. If you could add it to the public comments.

Thanks,

Wade

---------- Forwarded message ---------
From: **Wade Sanner** <wsanner@sheridanwy.net>
Date: Mon, Jun 15, 2020 at 4:30 PM
Subject: Re: Hidden Bridge Ranch Development.docx
To: Jacob Martin <jmartin@sheridanwy.net>

Thanks for sending this to me and keeping me in the loop. I'll make sure it gets added to the public comment. Let me know if I can help with anything.

Wade

On Mon, Jun 15, 2020 at 3:38 PM Jacob Martin <jmartin@sheridanwy.net> wrote:

> Wade,
>
> Water pressure concern and property value as I'm sure you know have been ongoing concerns from different residents regarding the new development on Mydland. I know we will hear from some residents in person tonight. Any information you can provide would be appreciated.
>
> Thanks,
>
> Jacob
>
> ---------- Forwarded message ---------
> From: <Sunrise@vcn.com>
> Date: Mon, Jun 15, 2020, 12:41 PM
> Subject: Hidden Bridge Ranch Development.docx
> To: <jmartin@sheridanwy.net>

avast This email has been checked for viruses by Avast antivirus software.
www.avast.com

--

Wade Sanner, AICP
Community Development Director

Sue Goodman <sgoodman@sheridanwy.net>

Excalibur PUD

1 message

PATRICIA DAVIS <t2davis@me.com> Fri, Jun 12, 2020 at 12:39 PM
To: gomkem@msn.com
Cc: Sue Goodman <sgoodman@sheridanwy.net>

Thank you for reaching out, Matt. I had responded to Renee's earlier email, asking what position Cloudpeak ranch was taking, but did not hear back from her. At that time I called Sue Goodman of the city who didn't even have what Renee had sent us, which I thenforwarded to her.

Today I got this back from her. I assume you already have it but if not, have it!

Excalibur has, to my knowledge, done some nice developments. I am thinking of one up near the airport. But 100 houses in that space, on tiny 5000 square-foot lots, as an R2 zone with 10 feet between the houses (5 foot setbacks?) Seems absolutely ridiculous.

I agree with the objections that you outlined in your email. I also think that what is planned is out of character with the rest of cloud Peak Ranch, any future development along hidden bridge golf course fairways, and even the old course Estates. I'm sure the flag of "affordable housing" will be waved, but I believe this development should remain zoned R1, with all the requirements of R 1.

Renee did not send on any contact details for city Council. I will copy Sue Goodman on this and hope that she will share with the relevant personnel.
Thanks
Trish Davis

Hidden Bridge Ranch NN PC 6_22_2020 CC 7_6_2020.pdf
2429K

Sue Goodman <sgoodman@sheridanwy.net>

Fwd: Hidden Bridge Ranch Proposed Development

1 message

Bev Leichtnam <bleichtnam@sheridanwy.net> Thu, Jun 18, 2020 at 11:00 AM
To: Wade Sanner <wsanner@sheridanwy.net>, Sue Goodman <SGoodman@sheridanwy.net>, Lane Thompson <lthompson@sheridanwy.net>, Stuart McRae <smcrae@sheridanwy.net>

---------- Forwarded message ---------
From: **Roger Miller** <rmiller@sheridanwy.net>
Date: Thu, Jun 18, 2020 at 10:56 AM
Subject: Fwd: Hidden Bridge Ranch Proposed Development
To: Bev Leichtnam <bleichtnam@sheridanwy.net>

---------- Forwarded message ---------
From: **Gary & Cindy** <gwadec@aol.com>
Date: Fri, Jun 12, 2020 at 9:26 AM
Subject: Hidden Bridge Ranch Proposed Development
To: Rmiller@sheridanwy.net <Rmiller@sheridanwy.net>, Rbridger@sheridanwy.net <Rbridger@sheridanwy.net>, Cbeavers@sheridanwy.net <Cbeavers@sheridanwy.net>, Phenderson@sheridanwy.net <Phenderson@sheridanwy.net>, Alinden@sheridanwy.net <Alinden@sheridanwy.net>, tshafer@sheridanwy.net <tshafer@sheridanwy.net>, jmartin@sheridanwy.net <jmartin@sheridanwy.net>
Cc: Gary & Cindy <gwadec@aol.com>

Mayor and Council members, my name is Gary Campbell and I am a resident in the Cloud Peak subdivision. I am asking to put on the agenda for the next meeting on June 15 for public comments. I along with many other residents within the Cloud Peak Ranch are against this project as it is currently being displayed and advertised on Facebook. We have many concerns with what is being proposed. As I am writing this the Company (Excaliber) is actively moving earth on this proposed project even though to the best of my knowledge and research indicates this has not been approved by the City. What the proposed plan shows will require multiple zoning changes. I am not necessarily against a proposed housing development however this will fall under the architectural control of the Cloud Peak Ranch. Since that is the case then any proposed subdivision should have to meet the R1 standards and have lot sizes no smaller than 6000 square feet. Additionally as shown this will be allowing a mix of residential and business together. Neither of these issues are allowed under the current Cloud Peak Ranch HOA standards. To allow the proposal to go forward as shown will have a negative effect on our adjacent property values. I have a list of other issues I will bring up at the meeting. I look forward to talking to you. If you have any questions feel free to give me a call.

Thanks

Gary W. Campbell
2218 Pheasant Draw Road
Sheridan, Wy

(h)429-1281
(c) 406-861-7603

--

Sue Goodman <sgoodman@sheridanwy.net>

Fwd: Hidden Bridge Ranch development

1 message

Bev Leichtnam <bleichtnam@sheridanwy.net> Thu, Jun 18, 2020 at 11:01 AM
To: Wade Sanner <wsanner@sheridanwy.net>, Sue Goodman <SGoodman@sheridanwy.net>, Lane Thompson <lthompson@sheridanwy.net>, Stuart McRae <smcrae@sheridanwy.net>

---------- Forwarded message ---------
From: **Roger Miller** <rmiller@sheridanwy.net>
Date: Thu, Jun 18, 2020 at 10:57 AM
Subject: Fwd: Hidden Bridge Ranch development
To: Bev Leichtnam <bleichtnam@sheridanwy.net>

---------- Forwarded message ---------
From: <mkdosch@charter.net>
Date: Tue, Jun 16, 2020 at 3:09 PM
Subject: Hidden Bridge Ranch development
To: rmiller@sheridanwy.net <rmiller@sheridanwy.net>, cbeaver@sheridanwy.net <cbeaver@sheridanwy.net>, phenderson@sheridanwy.net <phenderson@sheridanwy.net>, alinden@sheridanwy.net <alinden@sheridanwy.net>, tshafer@sheridanwy.net <tshafer@sheridanwy.net>, rbridger@sheridanwy.net <rbridger@sheridanwy.net>, jmartin@sheridanwy.net <jmartin@sheridanwy.net>

Dear Mayor Miller and counsel members,

My husband and I live in the Cloud Peak Ranch development. We chose this area because of the HOA rules that apply to this development. We have lived in Sheridan 8 years and have watched housing developments around Sheridan form. The lot sizes for Hidden Bridge seem very small for a quality home to be built, in our HOA it states that home sizes be a minimum 1500 sq ft for a ranch style home and 1800sq ft for a 2 story home. Our concern is that these small lots and apparently small homes devalue our beautiful neighborhood.

Another concern is the use of the vinyl fences to separate lots and homes. Is our HOA going to be forced to pay for the repairs when they need it? In our neighborhood we can only have rail fences where repairs are minimal. Our development has beautiful green spaces and nice lot sizes.

If the Hidden Bridge development is affordable housing, we know what kind of people it will attract. Just take a look at Stadium Place and the development north of that with the manufactured square box homes. Yards are neglected, cars are everywhere including parked along Mydland because of lack of parking. We feel that this would happen at Hidden Bridge Ranch with the amount of small lots and homes packed into the area.

Please consider our concerns like it was your home or development. Please feel free to call if you would like to discuss anything. Thank you

Herman and Karla Dosch
2203 Pheasant Draw Rd.
701-258-5261

--

Sue Goodman <sgoodman@sheridanwy.net>

Fwd: Hidden Bridge Ranch Development plan

1 message

Bev Leichtnam <bleichtnam@sheridanwy.net> Thu, Jun 18, 2020 at 11:02 AM
To: Wade Sanner <wsanner@sheridanwy.net>, Sue Goodman <SGoodman@sheridanwy.net>, Lane Thompson <lthompson@sheridanwy.net>, Stuart McRae <smcrae@sheridanwy.net>

---------- Forwarded message ---------
From: **Roger Miller** <rmiller@sheridanwy.net>
Date: Thu, Jun 18, 2020 at 10:58 AM
Subject: Fwd: Hidden Bridge Ranch Development plan
To: Bev Leichtnam <bleichtnam@sheridanwy.net>

---------- Forwarded message ---------
From: **Connie Krezelok** <Godschild1949@live.com>
Date: Wed, Jun 17, 2020 at 11:54 AM
Subject: Hidden Bridge Ranch Development plan
To: rmiller@sheridanwy.net <rmiller@sheridanwy.net>, cbeaver@sheridanwy.net <cbeaver@sheridanwy.net>, tshafer@sheridanwy.net <tshafer@sheridanwy.net>, phenderson@sheridanwy.net <phenderson@sheridanwy.net>, rbrider@sheridanwy.net <rbrider@sheridanwy.net>, alinden@sheridanwy.net <alinden@sheridanwy.net>, jmartin@sheridanwy.net <jmartin@sheridanwy.net>

Dear Mr. Mayor and Councilmen,

We are writing with regard to the Hidden Bridge Ranch Development proposal. We now live at 1959 Fairway Court but are life long residents of Sheridan County. We are generational Sheridanites. We know that we have a phenomenal community with many philantropic people. We support many services in Sheridan. So we are invested in this community.

Please consider our concerns, which are not solitary, seriously. These issues need to be addressed with integrity and serious professional planning. What will 100 homes do to our current water pressure, storm drainag for downstream neighbors, sewage, water table, traffic and schools? We already have several low cost housing developments in our area. We also have some large high end homes and middle range homes. The soccer fields when in use and Mydland Market have already impacted our traffic.

Homes are an investment. It is always the hope of a home owner that their home will keep its value and maybe increase in value. A quick build with homes that may be bought up in multiple units by a few people for rentals will not increase the value of the homes in this neighborhood.

We would encourage the planning to limit the number of houses that can be built in Hidden Ranch by increasing lot sizes. Rather than 100 crammed in homes seventy or less, preferably less, would be much more manageable and address the issues of many. And before the building we would encourage you to address for all of us how the impact of water pressure and storm drainage and traffic and schools will be taken care of in a way that is at the level we have now or better. We saw a post on Excalibur's Facebook page that they would be building luxury homes. We would not care so much about that as we would care and have concern for the impact of this area. We would be most concerned for anything that lessens our current neighborhood.

We know that you job is to consider the needs of us all not just a few. We appreciate that.

Sincerely,
John and Connie Krezelok
1959 Fairway Court
Sheridan, WY

--

PETITION FOR REZONING

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

Pursuant to the provisions of W.S. 15-1-601, 15-1-602, 15-1-603 et. seq., and other applicable statutes, and Appendix A, Sec. 16 of the Sheridan City Code, the undersigned landowner(s) respectfully petition and show the City Council as follows:

1. This is a petition for the rezoning of parcels of land within the city limits of Sheridan, Wyoming, having a legal description as follows:

2. Excalibur Construction, Inc. are the owners or authorized agents of said described land proposed to be rezoned.

3. A map of the area sought to be rezoned is attached hereto and made a part hereof.

4. Petitioners hereby request that said lands be zoned Planned Unit Development.

Therefore, Petitioners pray said parcel(s) be rezoned Planned Unit Development, pursuant to and in accordance with the applicable Wyoming Statutes and City Ordinances after proper notice and public hearing.

Dated this 8th day of MAY, 20__.

Signed by the Petitioners:

Subscribed and Sworn before me this 8 day of May, 2020

Notary Public

KRISTA K KELLY - NOTARY PUBLIC
COUNTY OF SHERIDAN STATE OF WYOMING
MY COMMISSION EXPIRES MAY 31, 2021

My commission expires: May 31, 2021

2020-755300 1/17/2020 4:13 PM PAGE: 1 OF 1
FEES: $12.00 DO WARRANTY DEED
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

WARRANTY DEED

Memorial Hospital of Sheridan County dba Sheridan Memorial Hospital, GRANTOR, for and in consideration of Ten Dollars ($10.00) and other good and valuable consideration in hand paid, receipt whereof is hereby acknowledged, conveys and warrants to Excalibur Construction, Inc., a Wyoming Corporation, GRANTEE, whose address is 2275 DRY RANCH RD, SHERIDAN, WY 82801, the following described real estate, situate in Sheridan County, State of Wyoming, hereby releasing and waiving all rights under and by virtue of the homestead exemption laws of the State of Wyoming, more particularly described as follows:

Lot B of Hidden Bridge Minor Subdivision, a Resubdivision of Tract 1 and Tract 2 of Sheridan Country Club Minor Subdivision, City of Sheridan, Sheridan County, Wyoming, recorded April 30, 2013 in Drawer H, Plat No. 58;

TOGETHER WITH all improvements, hereditaments and appurtenances thereunto belonging to or appertaining thereto;

SUBJECT TO all exceptions, reservations, rights-of-way, easements, covenants restrictions, and rights of record and subject of 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.

WITNESS my/our hand(s) this 17TH day of JANUARY, 2020

Memorial Hospital of Sheridan County dba Sheridan Memorial Hospital

By: MIKE MCCAFFERTY

Title: CEO

STATE OF WY)
)ss.
COUNTY OF SHERIDAN)

This instrument was acknowledged before me on the 17th day of January, 2020, by Mike McCafferty, as CEO of Memorial Hospital of Sheridan County dba Sheridan Memorial Hospital.

WITNESS my hand and official seal.

Signature of Notarial Officer
Title: Notary Public

My Commission expires 5-13-22

BRIAN T. KINNISON NOTARY PUBLIC SHERIDAN COUNTY, WYOMING My Commission Expires May 13, 2022

NO. 2020-755300 WARRANTY DEED
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK
WILCOX AGENCY
SHERIDAN WY 82801

2020-756272 3/3/2020 4:28 PM PAGE: 1 OF 3
FEES: $18.00 SM WARRANTY DEED
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK

WARRANTY DEED

For value received, System Land, LLC ("Grantor") conveys and warrants to Excalibur Construction, Inc. ("Grantee") whose address is 2275 Dry Ranch Road, Sheridan, WY 82801 the following described property situate in Sheridan County, Wyoming, hereby releasing and waiving any and all rights under and by virtue of the homestead exemption laws of the State of Wyoming:

See attached Exhibit A

Together with all buildings, improvements and fixtures situate thereon.

The above described property is conveyed subject to all exceptions, reservations, rights of way, easements, dedications, covenants, restrictions, and rights of record and subject to conflicts in boundary lines and encroachments and building, zoning and subdivision regulations, real estate taxes, and any state of facts that would be disclosed by a physical inspection or accurate survey of the premises. The above described property is sold in "AS IS, WHERE IS" physical condition.

Dated this 20 day of February, 2020

System Land, LLC

By:_____
Manager

State of Wyoming)
) ss.
County of Sheridan)

This instrument was acknowledged before me this 20th day of February, 20__ by Donald B. Roberts, the manager of System Land, LLC. Witness my hand and official seal.

_____
Notary Public

My commission expires: 5-13-22

BRIAN T. KINNISON NOTARY PUBLIC SHERIDAN COUNTY, WYOMING My Commission Expires May 13, 2022

LEGAL DESCRIPTION
EXHIBIT "A"

Record Owner: ***SYSTEM LAND, LLC***
November 14, 2019

Re: 9.05 ACRE TRACT

A tract of land situated in the NW¼NW¼ of Section 28, Township 56 North, Range 84 West, 6th P.M., Sheridan County, Wyoming, as shown on **EXHIBIT "B"** attached hereto and by this reference made a part hereof; said tract of land being more particularly described as follows:

Commencing at the northwest corner of said Section 28 (Monumented with a 2" Aluminum Cap per PLS 6812); thence S00°49'29"W, 74.66 feet along the west line of said NW¼NW¼ to the **POINT OF BEGINNING** of said tract, said point lying on the south line of West Fifth Street (AKA State Highway No. 330) and being the northeast corner of Lot C, Hidden Bridge Minor Subdivision; thence N88°27'10"E, 60.09 feet along said south line of West Fifth Street (AKA State Highway No. 330) to a point, said point being the northwest corner of Tract A, Peak Addition; thence S00°49'30"W, 397.91 feet along the west line of said Tract A, Peak Addition to a point, said point being the southwest corner of said Tract A, Peak Addition; thence N89°59'56"E, 301.90 feet along the south line of said Tract A, Peak Addition to a point, said point being the southwest corner of Tract B, Peak Addition; thence, continue N89°59'56"E, 412.00 feet along the south line of said Tract B, Peak Addition to a point, said point lying on the southerly line of Lot 1, Cloud Peak Ranch, Fourth Filing and being the southeast corner of said Tract B, Peak Addition; thence S66°22'56"E, 567.43 feet along the southerly line of said Lot 1, Cloud Peak Ranch, Fourth Filing to a point, said point lying on the westerly right-of-way line of Mydland Road and being the southeast corner of said Lot 1, Cloud Peak Ranch, Fourth Filing; thence, along said westerly right-of-way line of Mydland Road through a non-tangent curve to the right, having a central angle of 05°09'47", a radius of 1370.00 feet, an arc length of 123.46 feet, a chord bearing of S19°28'44"W, and a chord length of 123.42 feet to a point; thence S22°03'38"W, 355.51 feet along said westerly right-of-way line of Mydland Road to a point, said point being the northeast corner of Lot B, Hidden Bridge Minor Subdivision; thence N56°19'12"W, 1044.37 feet along the northerly line of said Lot B, Hidden Bridge Minor Subdivision to a point; thence N64°24'01"W, 78.66 feet along said northerly line of Lot B, Hidden Bridge Minor Subdivision to a point; thence S90°00'00"W, 180.02 feet along the north line of said Lot B, Hidden Bridge Minor Subdivision to a point, said point lying on the east line of said Lot C, Hidden Bridge Minor Subdivision and the west line of said NW¼NW¼; thence N00°49'29"E, 456.30 feet along said east line of Lot C, Hidden Bridge Minor Subdivision and said west line of said NW¼NW¼ to the **POINT OF BEGINNING** of said tract.

Said tract contains 9.05 acres of land, more or less.
Bearings are Based on the Wyoming Coordinate System, NAD 1983, East Central Zone.

SURVEYOR'S STATEMENT

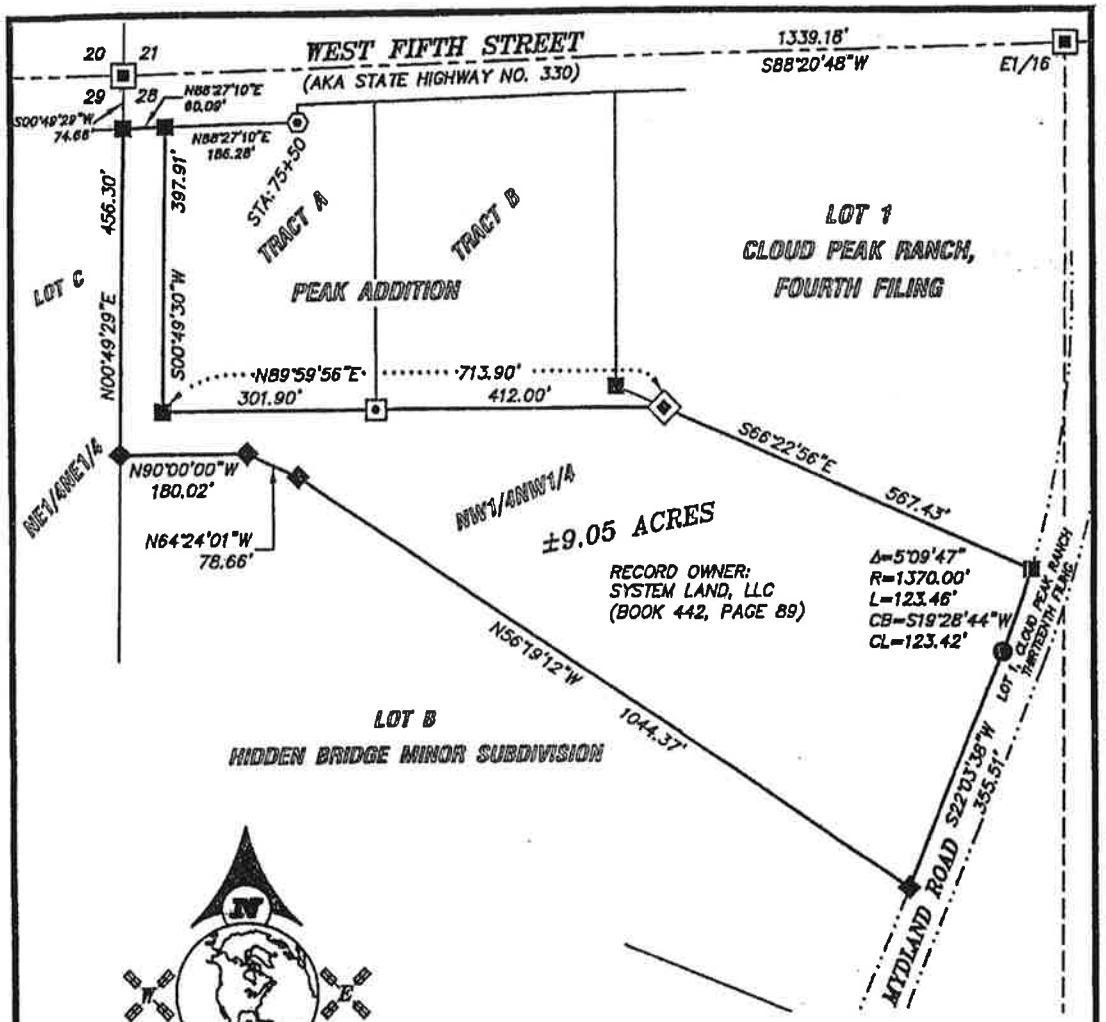
I, Thomas D, Tucker, do hereby state that this legal description was prepared from notes taken during an actual field survey performed by me or under my direct supervision.



Modification in any way of the above or foregoing legal description terminates liability of the surveyor.

H:\WP\LD\T56N\2019\2019-089-LD.rtf

2020-756272 3/3/2020 4:28 PM PAGE: 3 OF 3
FEES: $18.00 SM WARRANTY DEED
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK



SCALE: 1"=200'

BEARINGS ARE BASED ON THE WYOMING COORDINATE SYSTEM NAD 1983, EAST CENTRAL ZONE
DATUM: NAD 83(1992), NAVD 88 (U.S. SURVEY FEET)
DAF: 1.000236
DISTANCES ARE SURFACE

LEGEND:

- SET 2" ALUMINUM CAP PER PLS 6812
- FOUND 3-1/4" ALUMINUM CAP PER PLS 2615
- FOUND 2" ALUMINUM CAP PER PLS 6812
- 3-1/4" ALUMINUM CAP PER PLS 2615 OBLITERATED/SET 2" ALUMINUM CAP PER PLS 6812
- FOUND 2" ALUMINUM CAP PER PLS 2615
- FOUND 2-1/2" ALUMINUM CAP PER PLS 5009
- HIGHWAY RIGHT-OF-WAY MONUMENT
- CALCULATED: NOTHING FOUND/NOTHING SET
- PROPERTY/TRACT/LOT LINE
- SECTION LINE
- INTERIOR SECTION LINE
- HIGHWAY/ROAD RIGHT-OF-WAY LINE

SURVEYOR'S CERTIFICATE

STATE OF WYOMING :ss
COUNTY OF SHERIDAN

I, THOMAS D. TUCKER, A DULY REGISTERED LAND SURVEYOR IN THE STATE OF WYOMING, DO HEREBY STATE THAT THIS PLAT REPRESENTS THE RESULTS OF A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION.

Professional Land Surveyor
THOMAS D. TUCKER
6812
Date: NOV. 14, 2019
WYOMING

"PLAT IS VALID ONLY IF PRINT HAS ORIGINAL SIGNATURE OF SURVEYOR SIGNED AND DATED"

EXHIBIT "B"
RECORD OF SURVEY

CLIENT: SYSTEM LAND, LLC

LOCATION: SITUATED IN THE NW1/4NW1/4, SECTION 28, TOWNSHIP 56 NORTH, RANGE 84 WEST, 6TH P.M., CITY OF SHERIDAN, WYOMING

PRESTFELDT SURVEYING
2340 WETLANDS DR., SUITE 100
PO BOX 3082
SHERIDAN, WY 82801
307-672-7415

JN: 2019-089
DN: 2019-089-RS
TAB: ROS
PF: T2019-089
REVIEWED BY: NWS
NOVEMBER 13, 2019

NO. 2020-756272 WARRANTY DEED
EDA SCHUNK THOMPSON, SHERIDAN COUNTY CLERK
WILCOX AGENCY
SHERIDAN WY 82801