OFFICIAL MINUTES
SUMMERSET PLANNING AND ZONING COMMISSION
REGULAR MEETING

JUNE 14, 2022 @ 6:00 P.M.

The meeting was called to order by Commissioner Oldfield at 6:00 p.m.

ROLL CALL: Brody Oldfield, Dustin Hirsch, Casey Kenrick and Mike Martin present. John Hough absent. Also present was the City Administrator.

CALL FOR CHANGES: Motion by Kenrick, second by Hirsch to approve the agenda of the meeting for June 14th, 2022. Motion carried.

CONSENT CALENDAR: Motion by Kenrick, second by Martin to approve the minutes of the regular meeting of May 10th, 2022. Motion carried.

SPRING VALLEY ENTERTAINMENT – PRELIMINARY/FINAL PLAT
Plat of Lot 1, Block 3 of Summerset USA. Formerly a portion of Lot B of the E1/2NW1/4 and a portion of the Tract 3 of the S1/2, All in Section 25. Located in Section 25, Township 3 North, Range 6 East, Black Hills Meridian, City of Summerset, Meade County, South Dakota.

Motion by Hirsch, second by Martin to open discussion. Motion carried.

City Administrator Lisa Schieffer informed the Board that this preliminary/final plat was reviewed by HDR, and all items were addressed and corrected.

Motion by Martin, second by Hirsch, to close discussion. Motion carried.

Motion by Kenrick, second by Hirsch, to recommend approval to the City Commission. Motion carried.

ORDINANCE NO. 2022-07 - AN AMENDMENT TO TITLE XV: LAND USE, CHAPTER 151: SUBDIVISIONS, 151.052 SUPPLEMENTAL INFORMATION -AN ORDINANCE SETTING GEOTECHNICAL REQUIREMENTS FOR DEVELOPERS

Motion by Martin, second by Hirsch to open discussion. Motion carried.

City Administrator Lisa Schieffer informed the Board that currently in the reviews by HDR it site's Meade County's Ordinance #20 Section 5.1.2.4. This would add that section to Summerset's Ordinance #2022-07.

Motion by Martin, second by Kenrick, to close discussion. Motion carried.

Motion by Hirsch, second by Martin, to recommend approval to the City Commission. Motion carried.

ORDINANCE 2022-08 AN AMENDMENT TO TITLE XV: LAND USE, CHAPTER 155: ZONING – R-1 SINGLE FAMILY RESIDENTIAL, 155.058 AREA REGULATIONS

Motion by Kenrick, second by Martin to open discussion. Motion carried.

City Administrator Lisa Schieffer informed the Board that currently there are no setbacks for corner lots under R-1 Single Family Residential. This would be an addition to the same.

Motion by Martin, second by Hirsch, to close discussion. Motion carried.

Motion by Martin, second by Hirsch, to recommend approval to the City Commission. Motion carried.

ADJOURNMENT

Motion by Martin, second by Kenrick, to adjourn the meeting at 6:15 p.m. Motion carried.

Candace Sealey, Finance Officer	Brody Oldfield, Chairman

Published once 6/21/2022 at a cost of $59.40.

Memo

Date: Thursday, November 10, 2022

Project: Lots 1-8 and Dedicated ROW for Buckaroo Ct All of TAB Industrial Park

To: Lisa Schieffer, City Administrator

From: HDR, Inc

Subject: Preliminary Plat - Plan Review

General

1. Provide letter of approval from Black Hawk Water User District.
2. Provide letter of approval from Black Hawk Volunteer Fire Department
3. Provide letter of approval from SDDOT for the proposed intersection with SDDOT HWY 14 (Captain Soelzer St.), storm runoff to their ROW, and any work in their ROW.

Roadway

4. Proposed street section does not meet Summerset IDCM. For a commercial area IDCM requires an urban section (26' min. street width with curb and gutter and sidewalk).

Drainage

5. Based on the proposed layout, the storm runoff will be taking multiple paths through the proposed subdivision to get to the detention pond. The drainage report shall reflect this including evaluation of the culverts under Buckaroo Ct. and Captain Soelzer St. It is not clear in the plans nor the drainage report if the required freeboard for the culverts and the detention pond are being met.
6. Based on the City's indication that this property will be zoned C-1 commercial, for the proposed detention pond to serve as the detention pond for all 8 lots, the drainage report and drainage facilities may need to be updated and/or revised.

Sanitary Sewer

7. Proposed sewer is septic. City does not currently have sewer service in the area. City will need to decide if individual septic systems will be allowed.

HDR

Nov.10th, 2022

Final Plat Review

Lots 1-8 and Dedicated Public Right of Way for Buckaroo Court All of TAB Industrial Park

Formerly Lot N Revised of the E1/2 of Section 6
All located in the SE1/4 of Section 6 Township 2 North, Range 7 East
Black Hills Meridian, Meade County, South Dakota.

General Information:

Parcel Acreage	28.782
Location	SE ¼ Section 6 Township 2 North Range 7 East Black Hills Meridian, Meade, South Dakota County
Date of Application	October 28, 2022
Surveyor Job Number	22-263
Reviewed By:	**Gary Anderson, LS, HDR Engineering, Inc.**
Purpose:	New Subdivision
Zoning:	Property is in the City of Summerset extraterritorial jurisdiction and is not currently zoned. The City of Summerset indicated review should be completed assuming the zoning will be C-1 General Commercial District.
Access and Utilities:	Access for Lots 1-3 & 5-7 off proposed Buckaroo Court. Lot 4 access off Black Hawk Road and Lot 8 access off unnamed ROW. Water provided by Black Hawk Water User District. Proposed sewer is septic, Summerset does not currently have sewer in this area.
Fire Protection:	Black Hawk Volunteer Fire Department
Drainage:	Major drainage easement shown on south end of Lot 1. Minor drainage and utility easements noted along interior side of all lot lines.

Final Plat Review:

Bearings Distances of the Perimeter do NOT close by 4 feet

Buckaroo Crt. ROW is not a Parallel width, bearing of L1 is different than the north line of the dedicated ROW.

Why are bearing and distance not provided to found Wendland monument (at Black Hawk Rd. CL).

Acreages shown for the proposed lots and ROW comes to 28.715 Acres, this doesn't match previous plat of Lot N.

For commercial roadways Summerset IDCM requires a minimum ROW width of 70'.

Based on the City's indication this will be zoned C-1, subdivision name may need to be changed.

Gary Anderson, LS 12000

hdrinc.com 601 Metz Dr. Gillette WY. 82717

REGISTERED PROFESSIONAL LAND SURVEYOR
REG. NO.
12000
GARY D.
ANDERSON
SOUTH DAKOTA

ACES
AFFORDABLY CREATIVE ENGINEERING SERVICES

MEMORANDUM

PROJECT: TAB Industrial Park – Lots 1 thru 8 & Buckaroo Court
LOCATION: Black Hawk, South Dakota
DATE: October 28, 2022
TOPIC: Overall Project Narrative and Submittal Package

This Memorandum shall provide an overall narrative of the proposed TAB Industrial Park Project and the submittal items provided with the Preliminary Plat application.

Items included with the Submittal Package:

1. Preliminary Plat Application Form and Checklist
2. Check #1572 for Application fee of $1,000
3. Preliminary Plat
4. Lots 1 through 8 and Buckaroo Court constriction plan set
5. Technical Memorandum – Drainage – Stormwater Management Plan
6. Electronic copy of items to be emailed to Lisa Schieffer

Summary of intent for platting process:

- Plat 8 large Lots within Meade County, South Dakota for Light Industrial type use
  - Area is in Black Hawk, Meade County and is within City of Summerset Extraterritorial Platting Jurisdiction
- No annexation is intended into the City of Summerset
  - No water or sewer utilities are being requested or provided by the City of Summerset
    - Water is committed to be provided by Black Hawk Water
    - Individual Onsite Wastewater Treatment is planned
  - Location does not warrant City expansion
- Subdivision Plan meets Meade County requirements
- Submittal to City of Summerset Friday, **October 28, 2022**
  - Three (3) weeks two (2) days for City to review and comment
- On the Agenda at the **Planning and Zoning Meeting, Tuesday, November 22, 2022**
  - Intent is to receive recommendation of approval
- On the Agenda at the **City Commission Meeting, Thursday, December 1, 2022**
  - Intent is to receive approval of Preliminary Plat

Any technical questions or additional information needed please contact project agent, Leah M. Berg at 605-716-4646 / 605-545-1120 or at LBerg@proacesinc.com. For any legal questions please contact project Attorney, Jessica L. Larson, with Beardsley Jensen & Lee at 605-721-2800 or at jlarson@blackhillslaw.com.

Leah M. Berg, P.E.

COMMUNITY PLANNING & DEVELOPMENT SERVICES

City of Summerset
7055 Leisure Lane, Summerset, SD 57718
Phone: (605) 718-9858 Fax: (605) 718-9883 Web: www.summerset.us

APPLICATION FOR DEVELOPMENT REVIEW

REQUEST *(please check all that apply)*

- ☐ Annexation
- ☐ Comprehensive Plan Amendment
- ☐ Fence Height Exception
- ☐ Planned Development (Overlay)
  - ☐ Designation
  - ☐ Initial Plan ☐ Final Plan
  - ☐ Major Amendment
  - ☐ Minimal Amendment
- ☒ Subdivision
  - ☐ Layout Plan
  - ☒ Preliminary Plat
  - ☐ Final Plat
  - ☐ Minor Plat
- ☐ Rezoning
- ☐ Road Name Change
- ☐ Conditional Use Permit
  - ☐ Major Amendment
  - ☐ Minimal Amendment
- ☐ Vacation
  - ☐ Utility / Drainage Easement
  - ☐ R.O.W. / Section Line Highway
  - ☐ Access / Non-Access
  - ☐ Planting Screen Easement
- ☐ OTHER *(specify)*_____

LEGAL DESCRIPTION (Attach additional sheets as necessary)

EXISTING LOT N REVISED of the E1/2 of Section 6, Township 2 North, Range 7 East, Black Hills Meridian, Meade County, South Dakota.

PROPOSED Lots 1 through 8 AND Dedicated Public Right of Way for Buckaroo Court all of TAB Industrial Park. ALL Located in the SE1/4 of Section 6, Township 2 North, Range 7 East, Black Hills Meridian, Meade County, South Dakota.

LOCATION 7935 Cpt Soelzer St, Black Hawk, SD 57718

Size of Site–Acres 28.782	Square Footage 1,253,743.92	Proposed Zoning N/A

DESCRIPTION OF REQUEST:
Extra Territorial Jurisdiction
TAB Industrial Park - Platting 8 Lots and Dedicated Public Right of Way – Buckaroo Court

Utilities: Private / Public
Water BLACK HAWK WATER
Sewer INDIVIDUAL

APPLICANT

Name Chad Gollnick Phone 605-415-5090
Address PO BOX 825 E-mail cgollnick@ironoutfitter.com
City, State, Zip Black Hawk, SD 57718 Signature [signature] Date 10/27/22

PROJECT PLANNER - AGENT

Name Leah M. Berg, P.E. of ACES - Affordably Creative Engineering Services, Inc. Phone 605-716-4646 / 605-545-1120
Address 324 St. Joseph St, Ste 200 E-mail LBerg@proacesinc.com
City, State, Zip Rapid City, SD 57701 Signature [signature] Date 10/27/22

OWNER OF RECORD *(If different from applicant)*

Name Dakota Cable Solutions, Inc. - Chad Gollnick Phone 605-415-5090
Address PO BOX 825 E-mail cgollnick@ironoutfitter.com
City, State, Zip Black Hawk, SD 57718

[signature] 10/27/22
Property Owner Signature **Date**

Property Owner Signature **Date**

Signature **Date**
Print Name: CHAD GOLLNICK
Title*:

Signature **Date**
Print Name:
Title*:

***required for Corporations, Partnerships, etc.**

FOR STAFF USE ONLY

ZONING
Current
North
South
East
West
Planner
File No.
Comp Plan
Received By:

- ☐ Sewer Utility
- ☐ Fire Department
- ☐ Public Works
- ☐ Planning
- ☐ Building Inspector
- ☐ Engineering
- ☐ City Code Enforcement
- ☐ Police
- ☐ City Attorney
- ☐ BHP&L
- ☐ Finance Officer
- ☐ Register of Deeds
- ☐ County - Planning
- ☐ SD DOT
- ☐ SD DENR
- ☐ Auditor - Annexation
- ☐ Drainage
- ☐ Parks & Recreation
- ☐ Diamond D Water
- ☐ Black Hills Water
- ☐ Quaal Road District
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____
- ☐

Planning and Zoning Meeting Date:_____
Commission Meeting Date:_____
Date Paid:_____ Payment Type: Cash ☐ Check ☐ Credit Card ☐

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PRELIMINARY PLAT

The Filing Fee for a Preliminary Plat Application is $1000.00
Information and submission requirements follow:

1. Prior to submitting to the Planning Department any plat application applicant may schedule an optional Layout Plan meeting with the City of Summerset.
2. Applicant shall submit a complete Preliminary Plat application (below) with non-refundable fee and shall submit copies as follows:

x (1) Copies of Original Preliminary Plat Application and Preliminary Plat for proposed subdivision on 15"x26" paper by a registered land surveyor
x (1) Electronic copy of Preliminary Plat (submitted by disk, e-mail or other approved electronic media)
x (1) Copy of Preliminary Plat on 8 1/2" x 11" paper
NA A copy of any covenants for the proposed subdivision

3. **Preliminary Plat shall include the following:**

x Plat title, centered at the top of the page, consisting of the proposed name of the subdivision and a description of the land being subdivided. This should include former description if applicable.
x A scaled map of the proposed subdivision showing the location, dimension and area of the subdivision, lot(s), street(s) and dedicated boundaries. Include subdivisions, lots, and streets of adjoining subdivisions.
x A north arrow, scale, creation date, preparer name, and address legend.
x The location, width, and purpose of all easements and reserve strips.
x The location and dimension of lands to be dedicated or reserved for streets, parks, open space, and other public use.
x The lot and (if needed) block number that clearly identifies each parcel of land.
x A floodplain note addressing if any FEMA-defined Flood Hazard Area is present in the subdivision.
x A note (if there are any major drainage easements shown on the plat) stating that "Major drainage easements shall be kept free of all obstructions, including fences, and that the major drainage easement provides the Summerset Public Works Department, or their designee(s) the rights of entry, construction, and maintenance in order to facilitate drainage through these easements."
x A note stating "An eight foot (8') utility easement is hereby granted on the interior of all lot lines. Removal or modification of any obstruction or impediment to such an easement shall be the financial responsiblity of the landowner."
x All certifications and signature lines that are required on the Final Plat (see Subdivision Ordinance 115, Section 4, Paragraph D, for required certifications and signatures).

The following supplemental information shall be included in the Preliminary Plat Application unless waived by the Planning Commission during Layout Plan review. Submission identifed below to include paper originals plus one (1) electronic copy:

(2) Copies of Soil Erosion and Sediment Control Plan including:
x Scaled topographic survey map showing proposed lot lines and two-foot (2') contours
x Locations and areas of anticipated soil disturbance
x Proposed erosion control structures and practices
NA Seeding and planting plan for any screening strips or other landscaped areas required by the City Commissioners
Will be Completed Evidence of acceptance of the subdivider's application onto the State NPDES Permit by DENR
In process - Soils Engineering Report (if required by the City Commissioners)
Field Work Complete, waiting on report from DTE - Dakota Testing & Engineering, LLC

NA EXISTING (4) Copies of Water Distribution Plan-(2) copies will be used by city staff (2) copies to be submitted to DENR by the subdividers engineer. Plans to include:
- Scaled plan and profile showing the proposed location and size of the water distribution system including all pipes, appurtenances, and methods proposed for connection to the existing water system
- Location and size of service tap for each lot
- Letter of plan approval from water utility company

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PRELIMINARY PLAT

The following supplemental information shall be included in the Preliminary Plat Application unless waived by the Planning Commission during Layout Plan review. Submission identifed below to include paper originals plus one (1) electronic copy:

NA (4) Copies of Sanitary Sewer Plan-(2) for city staff and (2) copies to be submitted to DENR by subdividers engineer. Copies to include:
- Scaled plan and profile showing the location and size of the proposed and existing sanitary sewer system and methods proposed for connection to the existing sanitary sewer system
- Direction of flow of each sewer main, location and type of manholes and other appurtenances
- Location and size of the service tap and method of connection for each lot

(2) Copies of Stormwater Management Plan-designed to a (100)-year, (24) hour, design storm including:
X Scaled plan and profile of the existing and proposed drainage ways, detention structures, streams, and water features in and adjacent to the subdivision showing the direction of flow through the subdivision
X Location of easements and rights-of-way for drainage ways, and maintenance access thereof
NA Location, size, and invert elevations of proposed drainage structures (culverts, pipes, drop inlets, etc.)
X A report on pre- and post-development runoff within and through the subdivision
X Area of land contributing runoff to each drainage structure
X A report on the capacity of downstream drainage structures and channels and the effects of the proposed subdivision's development on downstream capacities

EXISTING (2) Copies of Utility (gas, electric, cable and telephone) Distribution Plan including:
X Scaled plan and profile drawing showing the location of gas mains, street lights, electric lines, telephone lines, cable television lines and facilities as necessary to serve each lot with in the subdivision
X Scaled map showing required easements, including achor easements for guy wires

(2) Copies of Street Plan including:
X Scaled plan and profile drawing of the location and names of all streets in and adjacent to the proposed subdivision
X Widths and areas of existing and proposed rights-of-way
NA Locations, dimensions, and areas of required sidewalks, curbs and gutters, drop inlets, mailboxes and signage
NA Letter of approval from applicable Fire District
NA Notation of any major street that is identified in the Major Street Plan
X Existing and proposed topography of the subdivision at two-foot (2') contours (unless a smaller interval is requested by the City Engineer)

(2) Copies of a Street Maintenance Plan: for all plats within the extraterritorial platting jurisdiction of the City. Each copy shall include one of the following:
NA An agreement with Meade County indicating that the proposed street will be accepted by Meade County for road maintenance and snow removal.
NA Evidence that a road district has been established in accordance with SDCL 31-12A.
NA An agreement to be approved by the City Commission which guarantees sufficient financial commitment to provide these services.
NA A written request to be approved by the City Commission for a waiver based upon one or more of the following:

a) Proposed subdivision includes (4) or fewer lots and resubdivision is unlikely under exisiting zoning or covenants

b) Unusual topographic restraints which would prevent acceptance of the street for public maitenance; or

c) Other unique circumstances proposed to the City Commission.

City of Summerset Ordinance #115, Subdivision Regulations can be found online at http://www.summerset.us/City_Ordinances.html

The City of Summerset has adopted the most current Rapid City Infrastructure Design Criteria Manual, Stormwater Quality Manual as well as the most current Rapid City Standards and Specifications for Public Works Construction to govern all planned development improvements. Please ensure all submissions meet these standards and specifications.

Preliminary Plat of
Lots 1 through 8 AND Dedicated Public Right of Way for Buckaroo Court all of TAB Industrial Park.
Formerly LOT N REVISED of the E1/2 of Section 6.
ALL Located in the SE1/4 of Section 6, Township 2 North, Range 7 East, Black Hills Meridian, Meade County, South Dakota.

COUNTY TREASURER'S CERTIFICATE

I, Treasurer of Meade County, South Dakota, do hereby certify that all taxes which are liens upon the land described hereon, as shown by the records of my office, are fully paid.

Dated this_____ day of _____ , 20_____.

_____
Meade County Treasurer

CERTIFICATE OF CITY FINANCE OFFICER

I, Finance Officer of the City of Summerset, South Dakota, do hereby certify that the foregoing instrument is a true and correct copy of the resolution adopted by the City Commission of the City of Summerset, South Dakota at a meeting held on the

_____ Day of _____ , 20_____.

_____
Finance Officer

CERTIFICATE OF CITY FINANCE OFFICER

I, Finance Officer of the City of Summerset, do hereby certify that all special assessments which are leins upon the within described lands are fully paid according to the records of my office.

Dated this _____ day of _____ , 20_____.

_____
Finance Officer

CERTIFICATE OF PLANNING COMMISSION

The City of Summerset Planning and Zoning Commission certifies it has reviewed the final plat and hereby recommends approval to the City Commission of the City of Summerset, South Dakota.

Dated this_____ day of _____ , 20_____.

_____
Planning Commission Member

RESOLUTION OF CITY COMMISSION

Whereas there has been presented to the City Commission of the City of Summerset, South Dakota, the within Plat of the above described lands, and it appears to this Council of Commissioners that:

a. The system of streets set forth therein conforms to the system of streets of the existing plats of the City, and
b. All provisions of the City Subdivision Regulations have been complied with, and
c. All taxes and special assessments upon the Tract or Subdivision have been fully paid
d. And such plat and survey thereof have been executed according to law.

NOW THEREFORE, BE IT RESOLVED that said plat is hereby approved in all respects.

Dated at Summerset, South Dakota

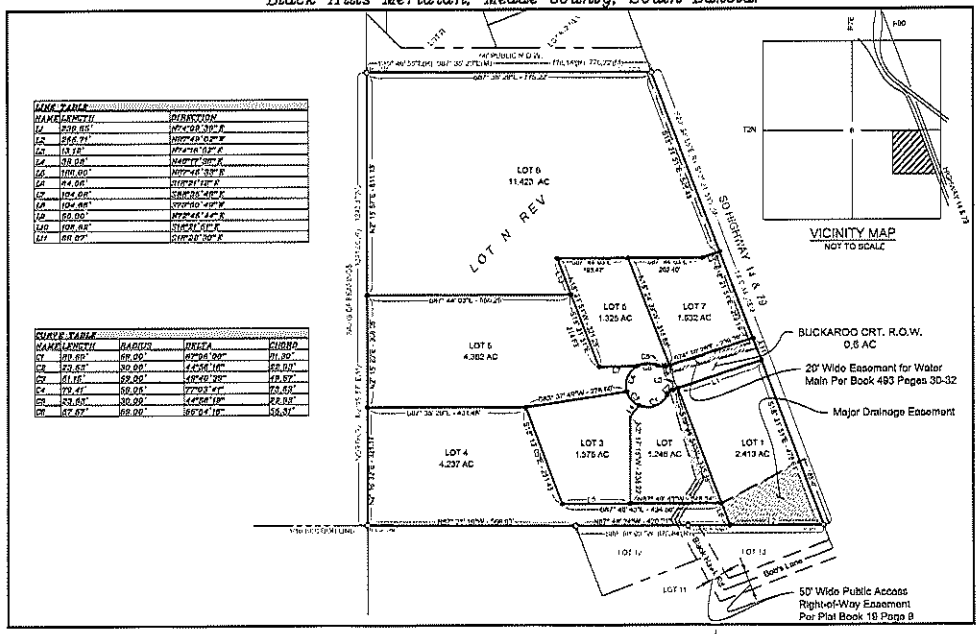
this_____ day of_____ , 20_____.

_____
Mayor

PREPARED BY: BASELINE SURVEYING, INC., 2305 JUNCTION AVENUE, STURGIS, S.D. 57785

LINE TABLE		
NAME	LENGTH	DIRECTION
L1	236.85'	N0°08'30"E
L2	266.71'	N87°49'02"W
L3	13.18'	N74°16'02"E
L4	38.08'	N48°17'00"E
L5	100.00'	N07°46'39"E
L6	44.06'	S10°21'18"E
L7	104.06'	S88°26'48"E
L8	104.46'	S70°10'49"W
L9	60.00'	N72°46'34"E
L10	108.48'	S16°21'50"E
L11	68.07'	S18°28'30"E

CURVE TABLE				
NAME	LENGTH	RADIUS	DELTA	CHORD
C1	98.69'	68.00'	82°56'09"	91.30'
C2	23.63'	30.00'	45°08'18"	23.00'
C3	51.15'	63.00'	46°48'25"	49.57'
C4	79.41'	59.05'	77°03'41"	73.53'
C5	23.63'	30.00'	44°58'18"	23.03'
C6	57.67'	69.00'	95°04'18"	55.31'



SURVEYOR'S NOTES

1. Utility & Minor Drainage Easements: An eight foot (8') wide utility and minor drainage easement is hereby granted on the interior side of all lot lines. Removal or modification of any obstruction or impediment to such an easement shall be the financial responsibility of landowner.
2. Plats of Record as Reference: Plat Book 18 Page 32 as previously recorded with the Meade County Register of Deeds Office in Sturgis, South Dakota.
3. Building Restrictions per the most recently adopted International Building Code and Building Setback Requirements per Meade County Ordinances.
4. Basis of Bearings Using Geodetic North Determined from Global Positioning System (GPS).
5. Per FEMA Mapping, FIRM Panel 46093C1787F, Designated in an Area of Minimal Flood Hazard, Zone X, Effective Date 9/16/2011.

LEGEND

- ● Set RLS7719, This Survey.
- ○ Found 5/8" Rebar, or otherwise noted.
- (R) Indicates dimensions previously recorded.
- (M) Indicates measured this survey.

28.782 ACERS ± TOTAL PLATTED AREA

0.0' 200' 400' 600'

SCALE: 1" = 200 Feet
OCTOBER 2022

CERTIFICATE OF DIRECTOR OF EQUALIZATION

I, Director of Equalization of Meade County, South Dakota, do hereby certify that I have on record in my office a copy of the within described plat.

Dated this _____ day of _____ , 20_____.

_____
Meade County Director of Equalization

APPROVAL BY HIGHWAY OR STREET AUTHORITY

The location of the proposed access to the Highway or Street as shown hereon is hereby approved. Any change in the location of the proposed access shall require additional approval.

Dated this _____ day of _____ , 20_____.

_____
Highway or Street Authority

DRAINAGE NOTES

All major drainage easements shown hereon shall be kept free of all obstructions including, but not limited to, buildings, walls, fences, hedges, trees and shrubs. These easements grant to all public authorities the right to construct, operate, maintain, inspect and repair such improvements and structures as it deems necessary to facilitate drainage from any source.

SURVEYOR'S CERTIFICATE

I, Shanon E. Vasknetz, 2305 Junction Avenue, Sturgis, SD, being a Registered Land Surveyor in the State of South Dakota, do hereby state that at the request of the Owners listed hereon, I have surveyed and plotted the property shown and described hereon. I have marked upon the ground the boundaries in the manner shown, and that the plat is correct to the best of my knowledge, information and belief. Easements or Restrictions of Miscellaneous Record or Private Agreements that are not known to me are not shown hereon.

REGISTERED LAND SURVEYOR
REG. NO. 7719
SHANON VASKNETZ
SOUTH DAKOTA

IN WITNESS WHEREOF
I hereunto set my hand and seal

this _____ day of _____ , 20_____.

_____
Shanon E. Vasknetz
Registered Land Surveyor No. 7719

OWNER'S CERTIFICATE

I, Chad Colinick, Owner – Director of Dakota Cable Solutions Inc., do hereby certify that I am the owner of the land shown and described hereon, and that I did authorize and do join in and approve the survey and plat. I further certify that the development of this land shall conform to all existing applicable zoning, subdivision, and erosion and sediment control regulations. Dedicated right-of-way as shown hereon is dedicated to public use.

IN WITNESS WHEREOF
I hereunto set my hand this ____ day of _____ , 20____.

_____
Dakota Cable Solutions Inc.: Owner (Director) Chad Colinick

ACKNOWLEDGEMENT OF OWNERS

STATE OF SOUTH DAKOTA }
COUNTY OF_____ } SS

On this ____ day of _____ , 20 ____ , before me, the undersigned officer, personally appeared Dakota Cable Solutions Inc. (Director) Chad Colinick, Designated as Owner, known to me to be the persons who executed the foregoing Owner's Certificate and acknowledged to me that they executed the same for purposes therein contained.
IN WITNESS WHEREOF, I hereby set my hand and official seal.

_____ _____
Notary Public My commission expires:

OFFICE OF REGISTER OF DEEDS

_____
Meade County Register of Deeds

PHONE: 605-490-1401 EMAIL: baseline@sturgissurveying.com JOB NUMBER: 22-263

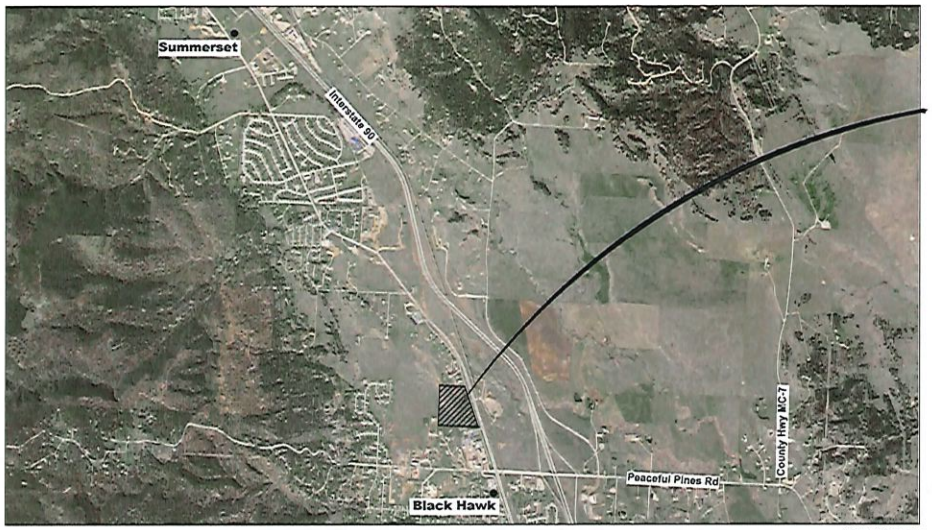
LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT

MEADE COUNTY, BLACK HAWK, SOUTH DAKOTA

SOUTH DAKOTA

INDEX OF SHEETS

1.0	COVER SHEET
2.0	GENERAL NOTES AND MATERIAL QUANTITIES
3.0	LOT LAYOUT PLAN
4.0	GRADING AND DRAINAGE PLAN
5.0	EROSION AND SEDIMENT CONTROL WITH DEMOLITION
6.0	PLAN & PROFILE STA. 0+00 - 3+37.07
7.0	DETAILS



BLACK HAWK, SD PROJECT

PROJECT LOCATION MAP

NOT TO SCALE

South Dakota 811
Know what's below. Call before you dig.

ACES
AFFORDABLY CREATIVE ENGINEERING SERVICES
AFFORDABLY CREATIVE ENGINEERING SERVICES, INC.
324 Saint Joseph Street, Suite 200, Rapid City, SD 57701
(605) 716-4646 • Fax (605) 716-1144

FINAL DESIGN

REVISIONS: DATE:

ACES PROJECT NO: 19-1090-4 DATE: 10/28/2022

LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT
BLACK HAWK, SD PROJECT

CHAD GOLLNICK
BLACK HAWK, MEADE COUNTY, SD

TITLE: COVER SHEET

SHEET NUMBER: 1.0

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SPECIFICATIONS TO BE USED

PROJECT SITE IS LOCATED IN BLACK HAWK, MEADE COUNTY, SOUTH DAKOTA. BEING WITHIN THE PLATTING JURISDICTION OF THE CITY OF SUMMERSET. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF SUMMERSET INFRASTRUCTURE DESIGN CRITERIA, EXCEPT AS NOTED. WHERE NECESSARY, THE PROJECT SPECIFICATIONS WILL BE SUPPLEMENTED WITH THE CITY OF RAPID CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2007 EDITION.

PROJECT INTENT

THIS PROJECT IS THE CREATION OF LOTS 1 THROUGH 8 AND THE SHORT CUL-DE-SAC OF BUCKAROO COURT. THE LENGTH OF BUCKAROO COURT IS ABOUT 350' OFF CAPTAIN SOELZER STREET IN BLACK HAWK, SOUTH DAKOTA. THIS INCLUDES THE GENERAL CONSTRUCTION OF: ASPHALT SURFACED ROAD WITH, OPEN DITCH DRAINAGE, WATER SERVICES OFF AN EXISTIN MAIN FOR BLACK HAWK WATER LOCATED ON THE PROPERTY, AND UTILITY SERVICES FOR LOTS 1 – 8. THERE SHALL BE ONE STREET LIGHT AT THE WEST END OF BUCKAROO COURT.

GENERAL SURVEY NOTES

THE TOPOGRAPHIC SURVEY WAS PROVIDED BY BASELINE SURVEYING, INC. THE SURVEY WAS COMPLETED IN SEPTEMBER 2022.

THE UTILITY LOCATIONS SHOWN ARE BASED ON FIELD LOCATES AND RECORDS. THE SIZE AND LOCATION OF UNDERGROUND UTILITIES WAS NOT VERIFIED BY EXCAVATION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING UTILITIES DURING CONSTRUCTION.

GENERAL NOTES:

THE CONTRACTOR IS REQUIRED TO OBTAIN COVERAGE UNDER THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES GENERAL STORM WATER CONSTRUCTION PERMIT WITH THE PROJECT DISTURBING MORE THAN 1 ACRE IN LAND AREA. CONTACT SD DENR AT 1-800-737-5678 FOR INFORMATION.

PROJECT SOIL DISTURBANCE AREA IS 2.5 ACRES.

IF WATER FROM TEMPORARY DEWATERING WILL BE DISCHARGED TO WATERS OF THE STATE DURING CONSTRUCTION, CONTRACTOR MUST FIRST OBTAIN COVERAGE UNDER THE DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES GENERAL PERMIT FOR TEMPORARY DEWATERING. FOR MORE INFORMATION CONTACT SD DENR AT (605) 773-3351.

CONTRACTOR SHALL UTILIZE THE SOUTH DAKOTA ONE CALL NOTIFICATION PROCESS TO PROVIDE ADVANCE NOTICE FOR ALL UTILITY LOCATIONS, 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

THE CONTRACTOR SHALL MEASURE AND RECORD ANY HORIZONTAL OR VERTICAL DEVIATIONS FROM THE CONTRACT DRAWINGS. THE CHANGES SHALL BE RECORDED IN AN ACCURATE, NEAT FASHION ON 11" X 17" DRAWINGS AND FURNISHED TO THE OWNER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER FOR COMPACTION OF GRANULAR MATERIALS AND TRENCH BACKFILL AS REQUIRED.

THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS FROM DAMAGE. DAMAGE TO IMPROVEMENTS DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

DEWATERING PERMIT

ALTHOUGH NOT ANTICIPATED, DEWATERING OF TRENCHES AND RELATED EXCAVATIONS MAY BE REQUIRED ON THIS PROJECT.

DEWATERING ACTIVITIES SHALL BE CONDUCTED IN COMPLIANCE WITH THE "GENERAL PERMIT TO DISCHARGE UNDER THE SURFACE WATER DISCHARGE FOR TEMPORARY DEWATERING ACTIVITIES IN SOUTH DAKOTA", SDDENR PERMIT NUMBER SDG 070000. THE CONTRACTOR IS REQUIRED TO FURNISH THE "REQUEST FOR AUTHORIZATION" TO SDDENR AS REQUIRED UNDER THE PERMIT, TO OBTAIN SDDENR AUTHORIZATION, AND FURNISH A COPY TO THE OWNER PRIOR TO CONDUCTING ANY DEWATERING ACTIVITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING SELF-MONITORING ACTIVITIES SUCH AS SAMPLING, TESTING, AND REPORTING AS MAY BE DETERMINED TO BE REQUIRED UNDER THE AUTHORIZATION TO DISCHARGE.

AGGREGATE MATERIAL

AGGREGATE BASE COURSE SHALL BE IN ACCORDANCE WITH SECTION 880 OF THE SDDOT STANDARD SPECIFICATIONS.

MATERIAL TESTING

THE CONTRACTOR SHALL PROVIDE ALL NEEDED MATERIAL TESTING FOR THE PROJECT INCLUDING, SUBGRADE AND GRAVEL SURFACING. THESE TESTS SHALL BE COMPLETED BY AN INDEPENDENT TESTING AGENCY.

AGGREGATE SHALL BE PROOF ROLLED AND DENSITY TESTED BY AN INDEPENDENT TESTING AGENCY TO THE SATISFACTION OF THE ENGINEER AND OWNER.

A MINIMUM OF 2 DENSITY TESTS SHALL BE TAKEN ON THE SUBGRADE, AND AGAIN ON THE AGGREGATE COURSE SECTIONS OF THE PROJECT PER PHASE. THESE TESTS SHALL BE EVENLY SPREAD OVER THE PROJECT AREA. THE SUBGRADE AND AGGREGATE COURSE SHALL BE COMPACTED TO 95% MAX DRY DENSITY +/- 3% OPTIMUM MOISTURE CONTENT. (ASTM D-698).

FAILING TESTS: CONTRACTOR SHALL RE-COMPACT AND RE-TEST AREAS REPRESENTED BY FAILING TESTS AT THEIR OWN EXPENSE.

EXCAVATION

THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL EXCAVATION, TRENCHING AND SHORING, AND THE LIKE, SHALL BE PERFORMED IN A MANNER THAT MEETS WITH THE OSHA DEPARTMENT OF LABOR, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND STANDARD SPECIFICATIONS.

GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO EXCAVATIONS, AND ANY OTHER WATER ACCUMULATING THEREIN SHALL BE PROMPTLY REMOVED. UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES.

GEOTECHNICAL INVESTIGATION

GEOTECHNICAL FIELD TESTING WAS CONDUCTED THE WEEK OF OCTOBER 24, 2022. REPORT AVAILABLE UPON REQUEST.

WATER SERVICE

WATER SHALL BE SUPPLIED BY BLACK HAWK WATER. THERE IS AN EXISTING MAIN AND FIRE HYDRANT ON THE PROPERTY AND SERVICES SHALL BE COORDINATED WITH BLACK HAWK WATER.

ONSITE WASTEWATER TREATMENT

THE TAB INDUSTRIAL PARK SHALL HAVE INDIVIDUAL ONSITE WASTEWATER TREATMENT SYSTEMS.

UTILITIES

THE CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES FOR SERVICES OR UTILITIES ENCOUNTERED ON THE SITE.

THE INFORMATION ON THESE DRAWINGS CONCERNING THE TYPE, SIZE AND LOCATION OF UTILITIES HAS BEEN SHOWN BASED UPON THE BEST INFORMATION AVAILABLE. THE UTILITY LOCATIONS SHOWN WERE BASED ON FIELD LOCATES AND FROM OWNER'S RECORDS. THE SIZE AND LOCATION OF UNDERGROUND UTILITIES WAS NOT VERIFIED BY EXCAVATION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.

NEW UTILITIES WITHIN THE SUBDIVISION: POWER, COMMUNICATIONS, AND GAS SHALL BE LOCATED WITHIN THE RIGHT-OF-WAY, SEE THE PLAN AND PROFILE SHEETS 6.0-6.2.

UTILITY INFORMATION:
SOUTH DAKOTA ONE-CALL 1-(800)-781-7474

(ELECTRIC)
BLACK HILLS ENERGY
409 DEADWOOD AVE., RAPID CITY, SD
(605)-721-3200

(PHONE DATA CABLE)
MIDCONTINENT COMMUNICATIONS
1310 OMAHA ST.
RAPID CITY SD
(605)-888-1300

(GAS)
MONTANA-DAKOTA UTIL.
718 STEELE AVE., RAPID CITY, SD
(605)-342-0160

(PHONE DATA)
LUMEN (CENTURY LINK)
(800)-573-1311

PAVEMENT

ASPHALT PAVEMENT SHALL NOT BE INSTALLED AFTER OCTOBER 15 THROUGH APRIL 15 WITHOUT THE APPROVAL OF THE ENGINEER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR TEMPORARY SURFACING AND MAINTENANCE.

CAREFUL CONSIDERATION SHALL BE GIVEN TO MAINTAIN PROPOSED FLOW LINES ESTABLISHED IN THESE PLANS. THE CONTRACTOR SHALL REPLACE INSTALLED PAVEMENT AT THEIR OWN EXPENSE IF ADEQUATE FLOW CHARACTERISTICS ARE NOT MAINTAINED ON INSTALLED PAVEMENT.

STREET SIGN

STREET SIGN SHALL MEET MEADE COUNTY HIGHWAY REQUIREMENTS.

RESTORED AREAS

TOPSOIL SHALL BE STRIPPED AND STOCKPILED. ALL DISTURBED AREAS OUTSIDE OF AREAS TO BE PAVED SHALL RECEIVE 4" OF TOPSOIL, AND BE RESEEDED. THE SEED MIXTURE USED SHALL BE:

NON IRRIGATED SEED MIX: (COMMON)	PERCENT BY WEIGHT
ANNUAL RYEGRASS	20%
BLUEBUNCH WHEATGRASS	10%
ORCHARDGRASS	10%
PERENNIAL RYEGRASS	10%
KENTUCKY 31 TALL FESCUE	15%
CANON CANADA BLUEGRASS	10%
LITTLE BLUESTEM	10%
HARD FESCUE	15%

OR APPROVED EQUAL.

ONCE TOPSOIL HAS BEEN PLACED THE SEED MIXTURE SHALL BE BROADCAST, TILLED, PACKED, AND HYDROMULCHED. RATE OF APPLICATION FOR SEEDING SHALL BE 175 POUNDS (LBS) PER ACRE.

DISTURBED AREAS SHALL BE RESEEDED EITHER TEMPORARILY OR PERMANENTLY, WITHIN 14 CALENDAR DAYS. THE CONTRACTOR SHALL MAINTAIN THE SEEDED AREA UNTIL 70% OF THE NEW VEGETATION HAS BEEN ESTABLISHED.

ESTIMATE OF QUANTITIES

Item No.	Description of Item	Estimated Quantity	Unit
1	Mobilization	1.0	LS
2	Miscellaneous and Incidentals	1.0	LS
3	Erosion and Sediment Control	1.0	LS
4	Construction Staking	1.0	LS
5	Unclassified Excavation	25.0	CY
6	Earthwork / Roadway Grading	1540.0	CY
7	1" Polyethylene Water Service	260.0	LF
8	1" Tapping Saddle	8.0	EA
9	1" Curb Stop & Box	8.0	EA
10	Aggregate Base Course, 6"	769.0	TON
11	Asphalt Pavement, 3" Thickness	467.0	TON
12	Aggregate Shoulder 1' Wide	27.0	TON
13	Seed, Fertilize and Mulch	6445.0	SY
14	Material Testing	1.0	LS
15	Street Sign - Buckaroo Court	1.0	EA
16	Street Light on Pole	1.0	EA

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FINAL DESIGN

REVISIONS: DATE:

ACES PROJECT NO: 19-1090-4 DATE: 10/28/2022

LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT
BLACK HAWK, SD PROJECT

CHAD GOLLNICK
BLACK HAWK, MEADE COUNTY, SD

TITLE: GENERAL NOTES AND MATERIAL QUANTITIES

SHEET NUMBER: 2.0

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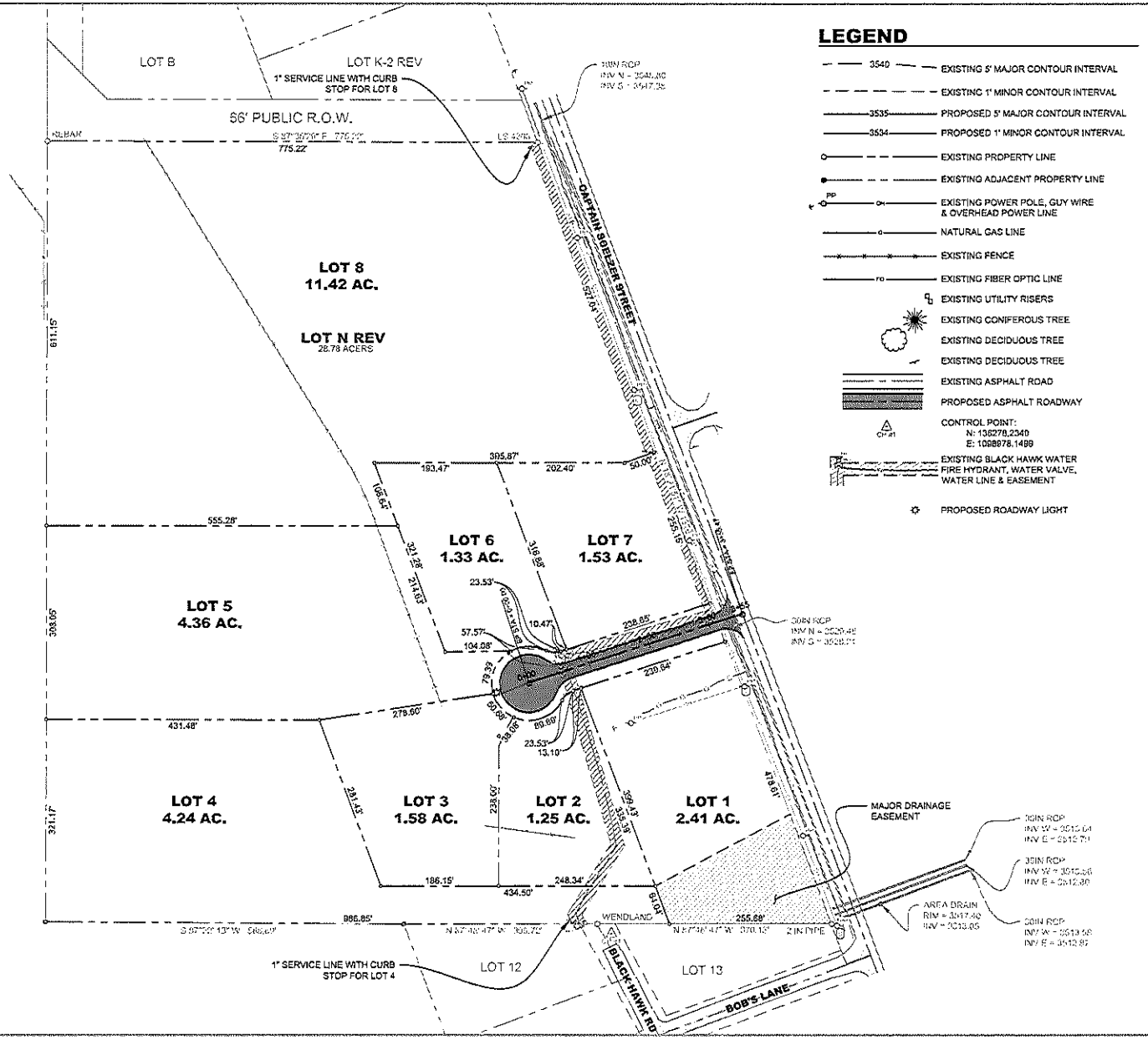

LEGEND

- EXISTING 5' MAJOR CONTOUR INTERVAL
- EXISTING 1' MINOR CONTOUR INTERVAL
- PROPOSED 5' MAJOR CONTOUR INTERVAL
- PROPOSED 1' MINOR CONTOUR INTERVAL
- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING POWER POLE, GUY WIRE & OVERHEAD POWER LINE
- NATURAL GAS LINE
- EXISTING FENCE
- EXISTING FIBER OPTIC LINE
- EXISTING UTILITY RISERS
- EXISTING CONIFEROUS TREE
- EXISTING DECIDUOUS TREE
- EXISTING DECIDUOUS TREE
- EXISTING ASPHALT ROAD
- PROPOSED ASPHALT ROADWAY
- CONTROL POINT: N: 136278.2340 E: 1088978.1499
- EXISTING BLACK HAWK WATER FIRE HYDRANT, WATER VALVE, WATER LINE & EASEMENT
- PROPOSED ROADWAY LIGHT

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LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT
BLACK HAWK, SD PROJECT

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HORIZ. SCALE: 1"=60'

TITLE: LOT LAYOUT PLAN

SHEET NUMBER: 3.0

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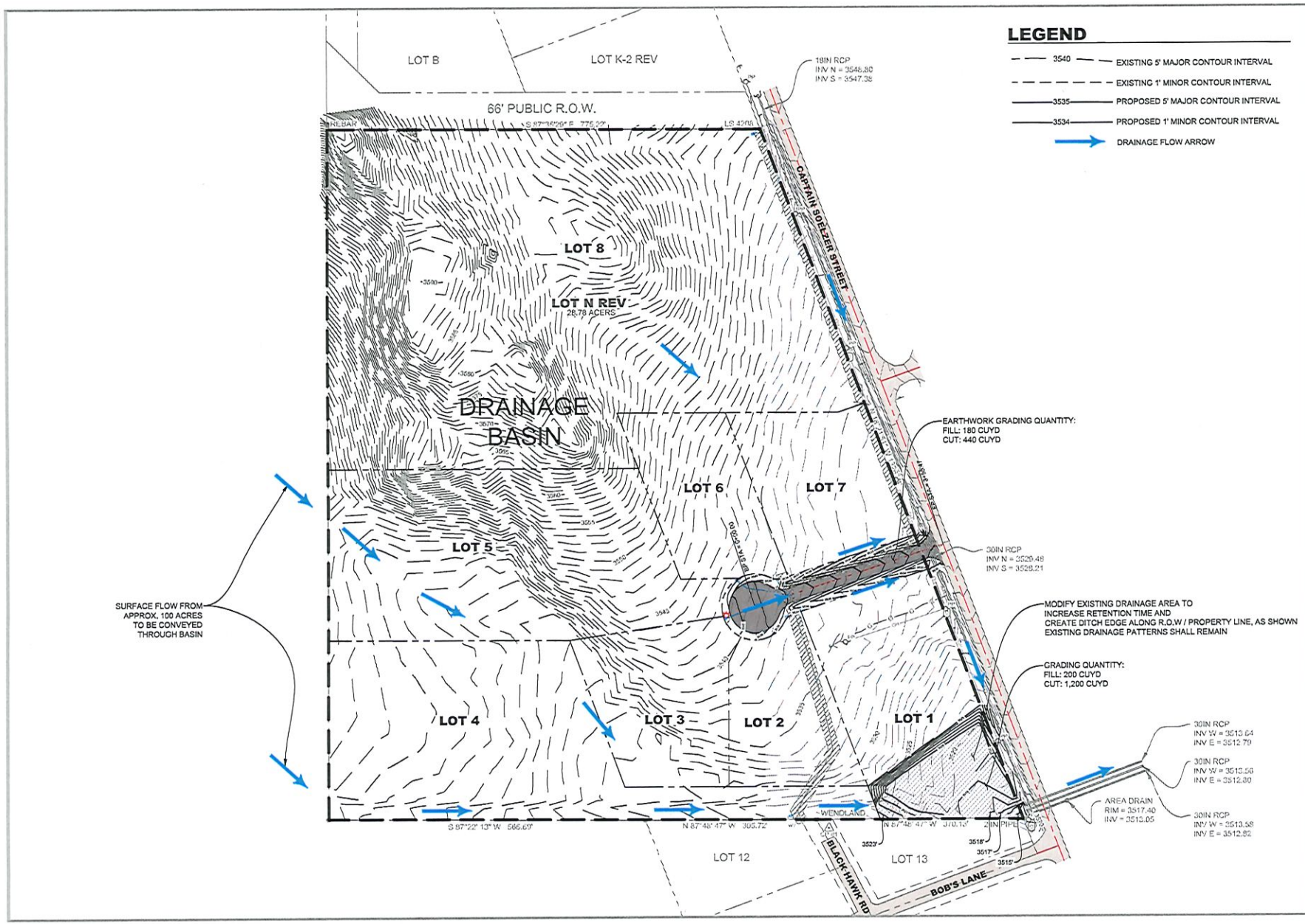

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REVISIONS:	DATE:

ACES PROJECT NO:	DATE:
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LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT
BLACK HAWK, SD PROJECT

CHAD GOLLNICK
BLACK HAWK, MEADE COUNTY, SD

80 40 0 80
HORIZ. SCALE: 1"=80'
Original Sheet Size: 34"x22", In Color

TITLE: GRADING AND DRAINAGE PLAN

SHEET NUMBER: 4.0

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NOTES

INSTALL TEMPORARY VEHICLE TRACKING CONTROL AT ALL LOCATIONS WHERE VEHICLES ENTER FROM PAVEMENT INTO CONSTRUCTION SITE. CONTRACTOR TO CLEAN PAVEMENTS OF SEDIMENTS AND MUD THAT IS NOT CONTROLLED BY VEHICLE TRACKING.

EROSION CONTROL MEASURES SHOWN ARE BASED ON THE ENGINEER'S JUDGEMENT. NO EXTRA PAYMENT WILL BE MADE IN THE EVENT ADDITIONAL MEASURES ARE REQUIRED.

CONTRACTOR TO SEED, FERTILIZE, & COVER ALL AREAS DISTURBED BY CONSTRUCTION WITH NON-IRRIGATED SEED MIX.

SILT FENCES, CONSTRUCTION ENTRANCES, AND/OR OTHER SUITABLE PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY GRADING OR LAND DISTURBING OR AS SOON AS POSSIBLE.

THE CONTRACTOR SHALL INSTALL BMP'S CORRECTLY AND MAINTAIN THEM REGULARLY THROUGH THE CONSTRUCTION PROCESS. INSPECTIONS OF BMP'S SHALL BE CONDUCTED ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM EXITING THE CONSTRUCTION LIMITS DURING ALL DEMOLITION, EXCAVATION, TRENCHING, GRADING OR OTHER CONSTRUCTION OPERATIONS OF THIS PROJECT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.

APPROVED EROSION AND SEDIMENT CONTROL "BEST MANAGEMENT PRACTICES" (BMP'S) SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.

EROSION CONTROL SHOWN MAY BE FIELD ADJUSTED BY THE ENGINEER AS NECESSARY DURING CONSTRUCTION.

THE CONTRACTOR SHALL MODIFY (INSTALL ADDITIONAL AND/OR ADJUST BEST MANAGEMENT PRACTICES) AS NECESSARY TO REDUCE EROSION AND/OR SEDIMENT TRANSPORT.

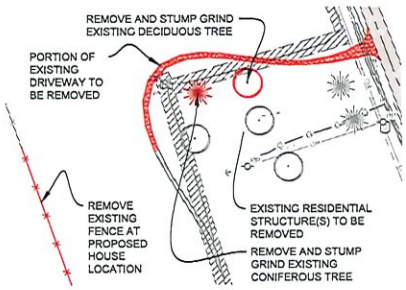
EROSION CONTROL SHOWN IS A MINIMUM. CONTRACTOR SHALL ADD ADDITIONAL MEASURES AS NECESSARY.

STABILIZED CONSTRUCTION ENTRANCES MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFFSITE SURFACES WITHIN 24 HOURS OF DISCOVERY. TEMPORARY STABILIZED CONSTRUCTION ENTRANCES SHALL BE RELOCATED AS NECESSARY DEPENDENT UPON PHASING.

ANY SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

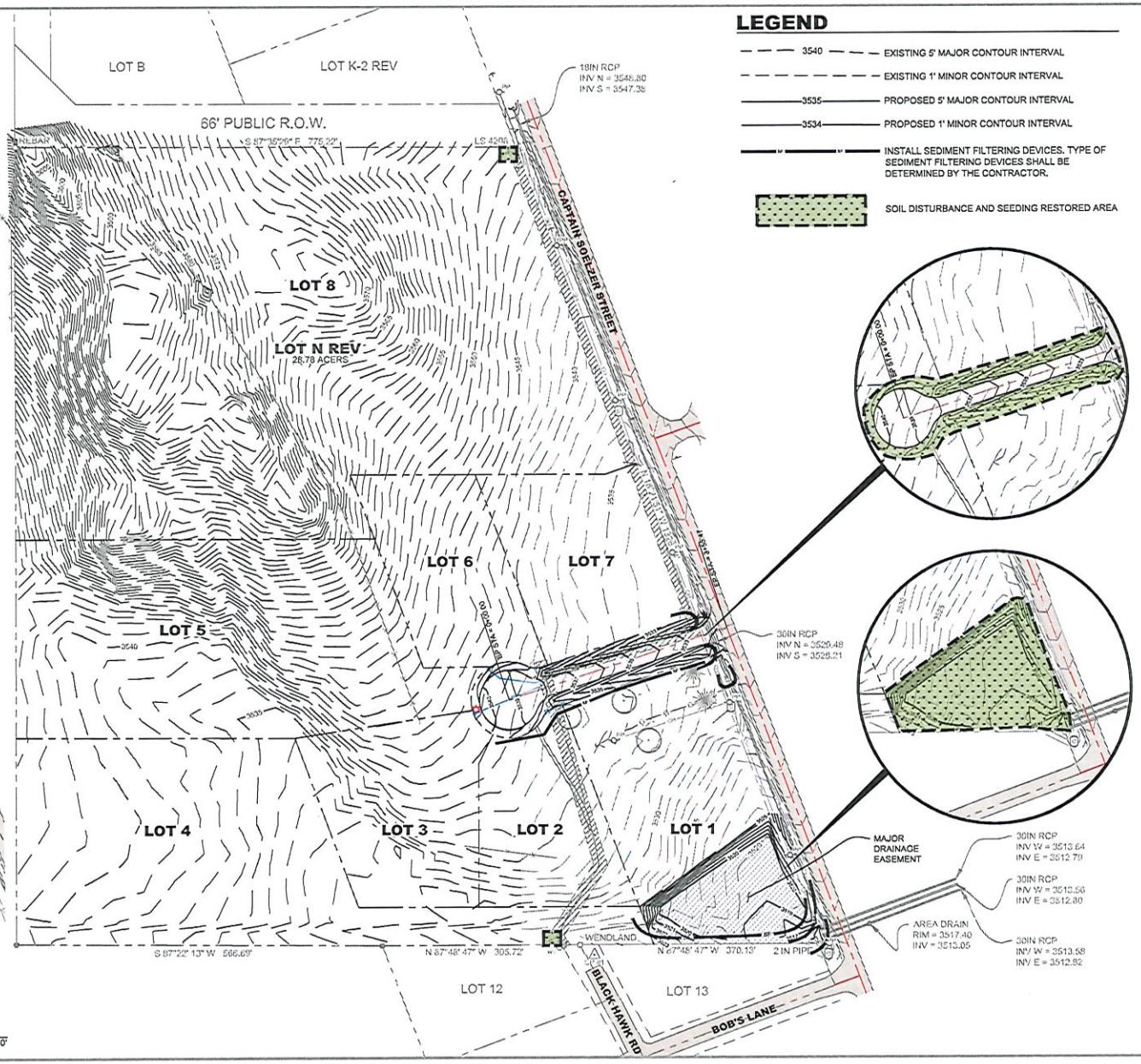
THE CONTRACTOR SHALL LEAVE THE EROSION CONTROLS IN PLACE FOR THE DURATION OF THIS PROJECT, AND UNTIL VEGETATION IS ESTABLISHED TO 70% OF PRE-CONSTRUCTION CONDITIONS. ONCE VEGETATION MEETS THE 70% REQUIREMENT, THE CONTRACTOR SHALL REMOVE EROSION AND SEDIMENT CONTROL MEASURES.

SOIL DISTURBANCE AND SEEDING/RESTORATION AREA SHOWN IS WHAT IS ANTICIPATED BUT SHOULD NOT BE LIMITED TO THE AREA SHOWN. ANY DISTURBED AREAS NOT RECEIVING HARDSCAPE SHALL BE RESTORED TO PRE CONSTRUCTION CONDITIONS AND SEEDED.



DEMOLITION ITEMS

SCALE: 1"=80'



LEGEND

- 3540 — EXISTING 5' MAJOR CONTOUR INTERVAL
- EXISTING 1' MINOR CONTOUR INTERVAL
- 3535 — PROPOSED 5' MAJOR CONTOUR INTERVAL
- 3534 — PROPOSED 1' MINOR CONTOUR INTERVAL
- INSTALL SEDIMENT FILTERING DEVICES. TYPE OF SEDIMENT FILTERING DEVICES SHALL BE DETERMINED BY THE CONTRACTOR.
- SOIL DISTURBANCE AND SEEDING RESTORED AREA

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LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT
BLACK HAWK, SD PROJECT

CHAD GOLLNICK
BLACK HAWK, MEADE COUNTY, SD

80 40 0 80
HORIZ. SCALE: 1"=80'
Original Sheet Size: 34"x22", In Color

TITLE: EROSION AND SEDIMENT CONTROL WITH DEMOLITION

SHEET NUMBER: 5.0

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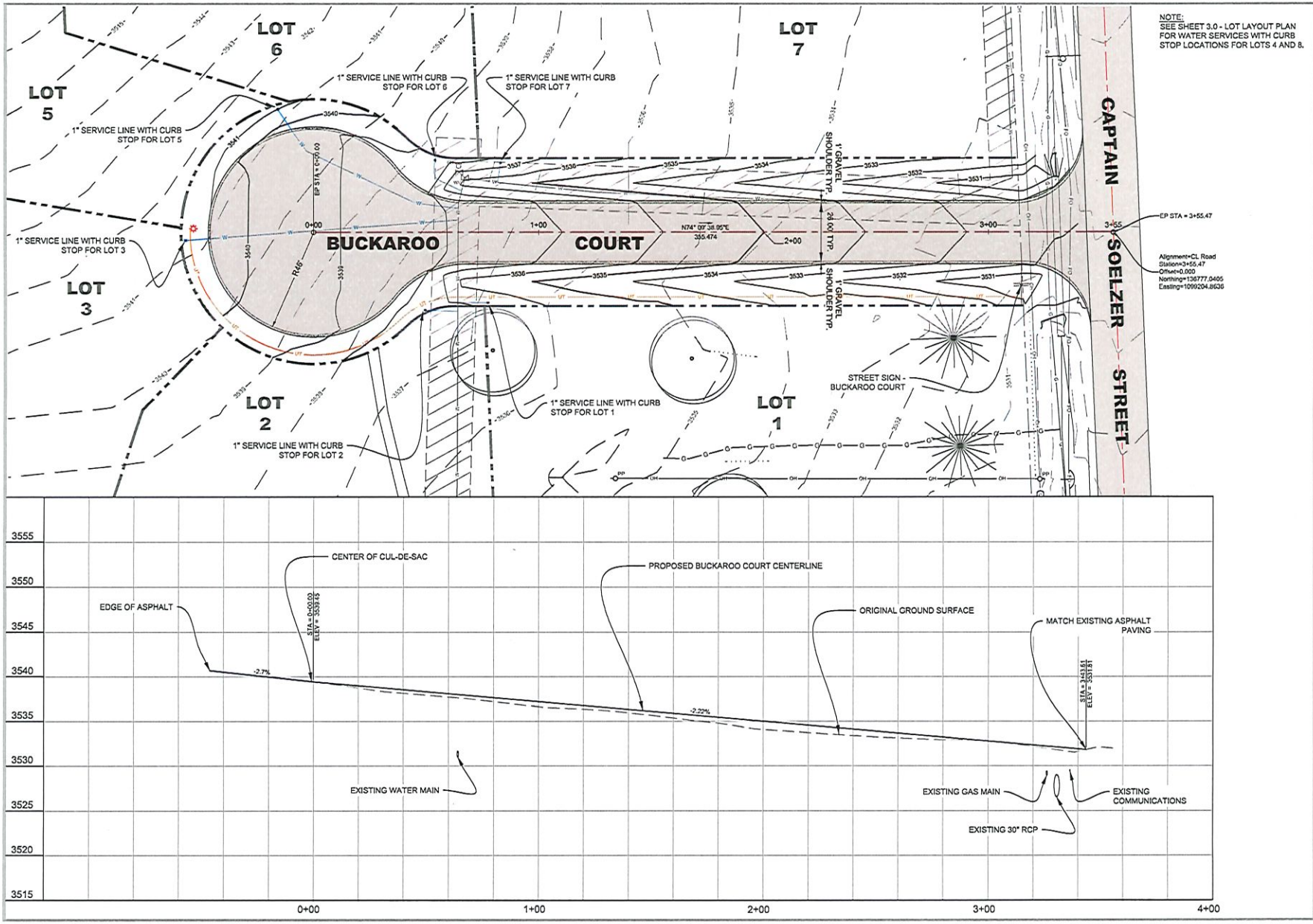

NOTE:
SEE SHEET 3.0 - LOT LAYOUT PLAN FOR WATER SERVICES WITH CURB STOP LOCATIONS FOR LOTS 4 AND 8.

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HORIZ. SCALE: 1"=20'
Original Sheet Size: 34"x22", In Color

TITLE: PLAN & PROFILE STA. 0+00 - 3+37.07

SHEET NUMBER: 6.0

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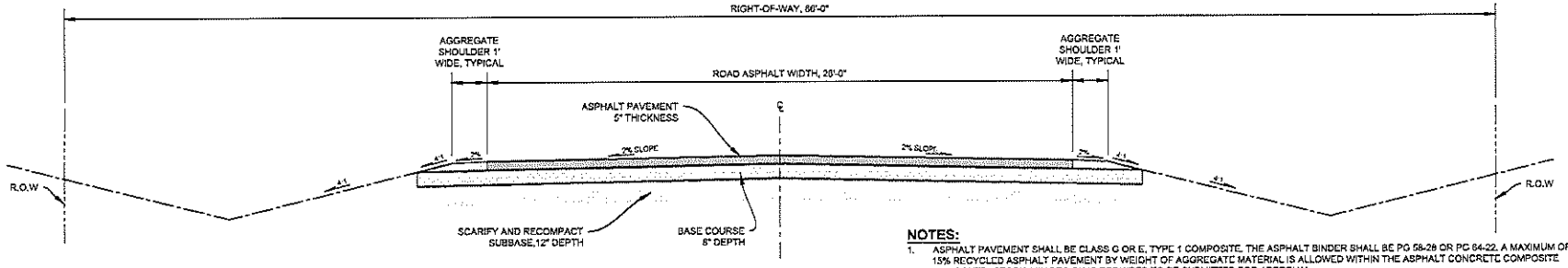
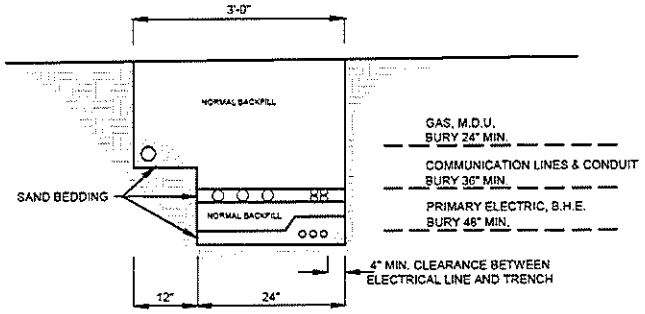


TYPICAL ROAD SECTION
N.T.S

NOTES:

1. ASPHALT PAVEMENT SHALL BE CLASS G OR E, TYPE 1 COMPOSITE. THE ASPHALT BINDER SHALL BE PG 58-28 OR PG 64-22. A MAXIMUM OF 15% RECYCLED ASPHALT PAVEMENT BY WEIGHT OF AGGREGATE MATERIAL IS ALLOWED WITHIN THE ASPHALT CONCRETE COMPOSITE MIX. CONTRACTOR'S MIX DESIGN IS REQUIRED TO BE SUBMITTED FOR APPROVAL.
2. PAVEMENT DETAILS SHALL BE VERIFIED BY GEOTECHNICAL TESTING AND REPORT PRIOR TO INSTALLATION. ANY DISCREPANCIES BETWEEN BETWEEN THE DETAILS AND GEOTECHNICAL FINDINGS SHALL BE REPORTED TO THE CIVIL ENGINEER.
3. AREAS THAT WILL NOT RECEIVE HARDSCAPE SHALL BE SEEDED, FERTILIZED & MULCHED FOLLOWING FINAL GRADING.
4. COMMON UTILITY TRENCH NOT SHOWN IN TYPICAL SECTION.
5. WATER MAIN IS EXISTING.
6. PUBLIC SANITARY SEWER SYSTEM IS NOT AVAILABLE. EACH LOT WILL HAVE INDIVIDUAL ONSITE WASTEWATER TREATMENT SYSTEMS.



NOTE: COORDINATE WITH UTILITY COMPANIES.

EXAMPLE COMMON UTILITY TRENCH LAYOUT
N.T.S

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LOTS 1 THROUGH 8 AND BUCKAROO COURT PROJECT
BLACK HAWK, SD PROJECT

CHAD GOLLNICK
BLACK HAWK, MEADE COUNTY, SD

TITLE: DETAILS

SHEET NUMBER: 7.0

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TECHNICAL MEMORANDUM

PROJECT: TAB Industrial Park – Lots 1 thru 8
LOCATION: Black Hawk, South Dakota
DATE: October 27, 2022
TOPIC: Drainage – Stormwater Management Plan

This Technical Memorandum shall provide information related to the drainage of the existing parcel and the impact related to the creation of Lots 1 through 8 with Buckaroo Court. The layout of the Lots are shown in Figure 1.

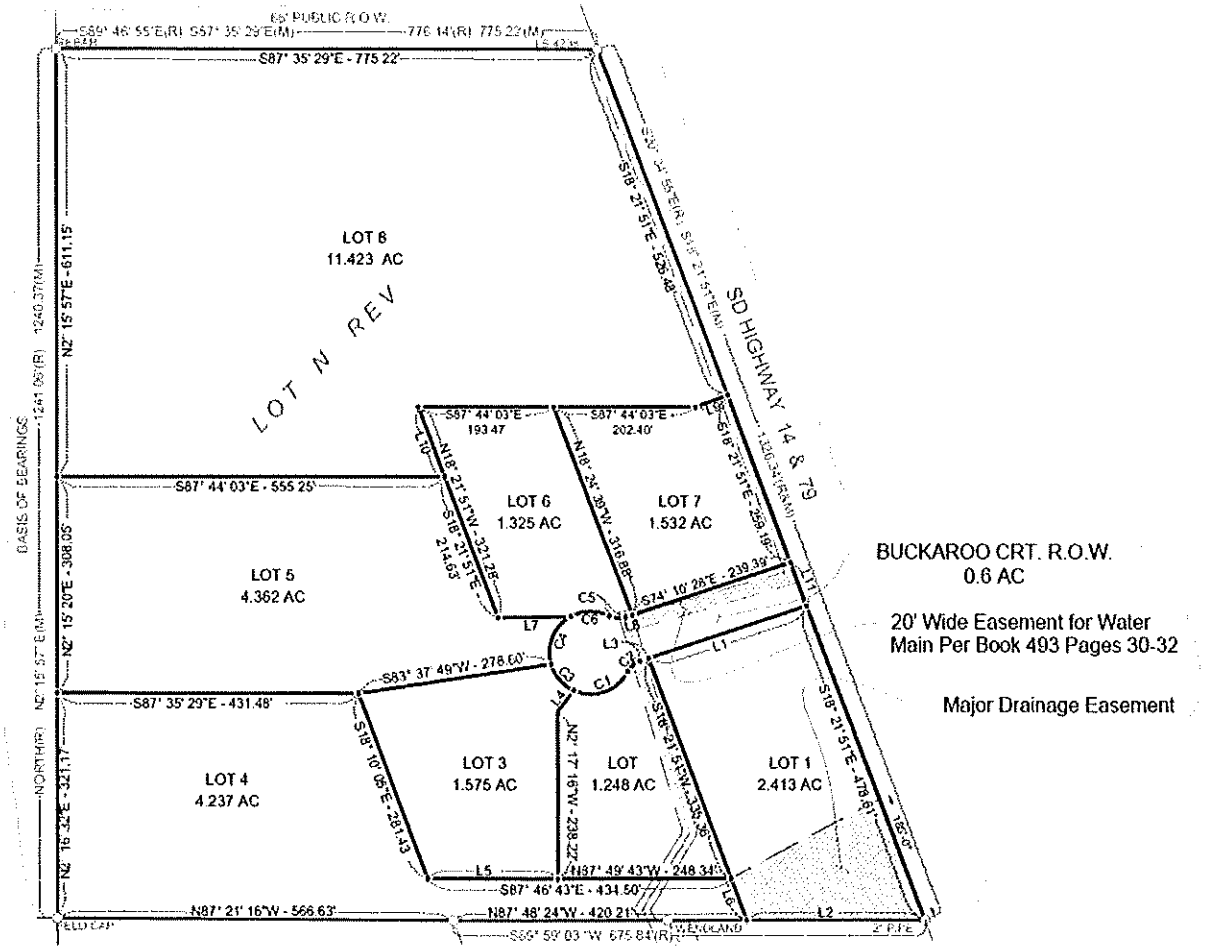


Figure 1: Lot Layout from Preliminary Plat

There is no FEMA regulated flood hazard zones within the limits of this property or adjacent areas. FIRM Map Number 46093C1787F, Effective Date September 16, 2011 is included for reference.

Based on the field verification of the Lot layout and investigation of area elements the drainage can be evaluated. The extent of the contributing area was determined utilizing the USGS StreamStats system and actual conditions and drainage patterns. The contributing area is from the NW and includes about 100 acres of land up to Anderson Road. The drainage path and pattern is toward the SE across the parcel and it will not be impacted or altered by the creation of Lots 1 through 8. The contributing drainage area is shown in Figure 2.

Figure 2: Contributing Drainage Area shown in Blue from Google Earth

With the contributing drainage area being established and the project area of Lots 1 through 8 being set as the Basin the Rational Method was selected for estimating the peak runoff based on the low complexity and size of the contributing area of the watershed and Basin. The selected Basin area is considered rural with open field conditions and adjacent roadways having open ditch drainage systems. The results of the contributing drainage flow calculations are as follows:

The Rational Method equation is Q = ciA

Q = Discharge, ft^3/sec (CFS)
c = Runoff Coefficient
i = Rainfall Intensity, in/hr

(IDF curve found in SDDOT Drainage Manual for Rapid City as a close comparison at a time of concentration of 10 minutes)

A = Drainage Area, acre (AC)

The runoff coefficients, c, were selected from Table 4-1 of the Summerset IDCM, for "Parks/Cemeteries" for the Pre-Construction to best reflect the impervious area and "Light Industrial" for Post-Construction on Lots 1 through 7 and "Multi-Unit (Detached) to best represent the large area of Lot 8.

The storm events for a 2-year, 10-year and 100-year were evaluated. The results are provided in Table 1.

Table 1: Calculation Results for the Pre-Construction and Post-Construction conditions

DRAINAGE BASIN	UNITS	PRE-CONSTRUCTION	POST-CONSTRUCTION	
BASIN AREA	(AC)	28.7	28.7	
PERVIOUS AREA	(AC)	27.27	3.46	5.71
IMPERVIOUS AREA	(AC)	1.44	13.83	5.71
IMPERVIOUS AREA	(%)	5.0	80.0	50.0
TIME OF CONCENTRATION (t_c)	(MIN)	10.0	10.0	10.0
C_2		0.05	0.71	0.45
C_{10}		0.20	0.76	0.60
C_{100}		0.40	0.82	0.70
i_2	(IN/HR)	4.30	4.30	4.30
i_{10}	(IN/HR)	6.5	6.5	6.5
i_{100}	(IN/HR)	9.6	9.6	9.6
Q_2	(CFS)	6.2	52.8	22.1
Q_{10}	(CFS)	37.3	85.4	44.5
Q_{100}	(CFS)	110.2	136.1	76.8
RUNOFF VOLUME$_2$	(CF)	10,626	69,923	
RUNOFF VOLUME$_{10}$	(CF)	64,248	119,161	
RUNOFF VOLUME$_{100}$	(CF)	189,778	193,841	
RUNOFF VOLUME$_2$	**(ACFT)**	**0.24**	**1.61**	
RUNOFF VOLUME$_{10}$	**(ACFT)**	**1.47**	**2.74**	
RUNOFF VOLUME$_{100}$	**(ACFT)**	**4.36**	**4.45**	

The proposed Lots are large and will have light industrial use at the Post Construction condition. The creation of impervious area should be considered but is unknown at this time. What was assumed for calculations is a conservative estimate of 80% impervious area will be created for Lots 1 through 7 and 50% impervious area will be created on Lot 8. The difference is due to the size of Lot 8 being 11.4 Acres.

The 2 year, 10 year, and 100 year storm event will result in some additional runoff being created. The difference in runoff for the storm events, as listed in Table 1, is 1.4 ACFT, 1.3 ACFT and 0.1 ACFT, respectively. Since there is an increase in runoff, the additional runoff needs to be retained within the project area. Since there are natural drainage areas and

substantial natural area being retained, the ideal option is to retain the surface drainage within the retained natural/drainage areas.

Storm Water Quality Capture Volume (WQCV) is required to control storm water quality within the site prior to discharge to the open ditch system along Captain Soelzer Street. WQCV was calculated for the site and compared to detention volume to determine the controlling volume. The volume is calculated based on the time required to treat storm water and drain the detained volume to the open ditch conveyance system. The fraction of mapped impervious is also used for the calculation.

For the site, a drain time equal to 12 hours was selected. The WQCV calculations are as follows:

Basin: WQCV = 1.16*a*(0.91I3-1.191I2+0.78I)
Design Volume = WQCV/12*area
I = Impervious Area Fraction 60%
a = Drain Time (12 hrs.) 0.8
WQCV = 0.22 inches
DV = 2,762 CF

The required detention volume was calculated using the Modified Rational Method. Storage Calculations are attached to this Technical Memorandum. The required storage for the Basin is based on the difference between the existing and developed 100 year peak flows. The maximum storage volume calculated for detaining flows is 49,178 CF.

The Required Storage Volume for the Basin is 49,178 CF and the Water Quality Volume is 2,762 CF. Therefore, a minimum detention volume of 49,178 CF is required, which is the maximum volume control. The area of the Basin is 1,253,744 sqft and based on Light Industrial being planned, a conservative area of the pervious or natural area retained of 20% for Lots 1 through 7 and 50% on Lot 8 is 399,441 sqft of area is utilized. This area is assumed to be able to retain 1.0 inch deep surface drainage. The conservative area of turf with a 1.0 inch drainage depth equals 33,287 CF of volume being retained onsite.

Storage volume required is 49,178 CF and the storage volume provided onsite is 33,287 CF, leaving a difference of 15,892 CF needing to be retained onsite. The basin has existing drainage patterns and areas that will be retained. All surface flow is ultimately conveyed by three (3) 30 inch RCP culverts at Captain Soelzer Street. This crossing includes flows from the contributing area, the drainage basin and from adjacent areas to the south.

Without altering the existing drainage patterns the low drainage area shall be shaped to create more retention area and the slope will be lowered and area flattened out to slow flows and allow for surface flow to collect, as needed, during events. The area being created has a bottom size of about 18,400 sqft. However, the south edge, due to existing drainage patterns shall be retained, therefore, a conservative area of 16,000 sqft shall be utilized in calculations. This shaped area shall be turf and will be able to retain 12 inches deep of surface flow, as needed, prior to entering the culverts at this SE corner of the drainage basin. That size allows 16,000 CF of storage. The combination of the natural area storage of 33,287 CF and the modified drainage area storage of 16,000 CF, a total storage amount of 49,287 CF is provided. The contributing drainage area will continue to function at pre-construction conditions through the area.

The required storage volume is 49,178 CF as detailed above, the storage volume being provided onsite exceeds the requirement at 49,287 CF. The project plan set includes a Grading and Drainage Plan as well as an Erosion and Sediment Control Plan in order to clarify the drainage items required and protection of the existing drainage patterns through and after construction. A major drainage easement is included within Lot 1 at the SW corner of the project area and is shown on the Plat. This stormwater management plan has been proposed in order to account for existing and future drainage conditions.

Leah M. Berg, P.E.

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
13627
LEAH M.
BERG
SOUTH DAKOTA
10/27/2022

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables shown on this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Floodway Data table shown on this FIRM.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1998 or later.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

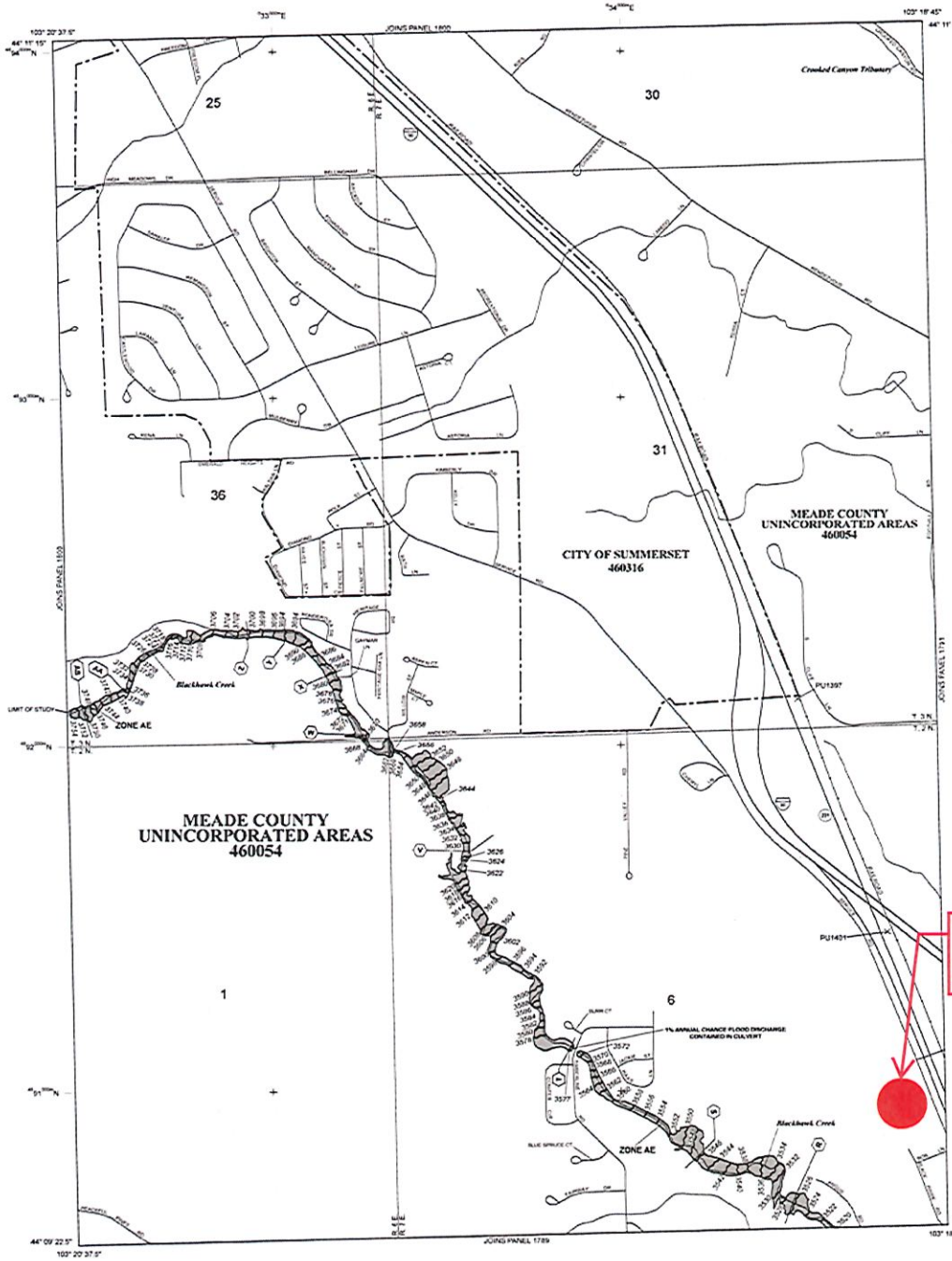
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unnevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 - - - - 23	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western hemisphere
7000000 FT	1000-meter Universal Transverse Mercator grid values, zone 13
5513510	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
SEPTEMBER 16, 2011
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1787F

FIRM
FLOOD INSURANCE RATE MAP
MEADE COUNTY, SOUTH DAKOTA
AND INCORPORATED AREAS

PANEL 1787 OF 2000
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MEADE COUNTY	460054	1787	F
SUMMERSET, CITY OF	460316	1787	F

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
46093C1787F

EFFECTIVE DATE
SEPTEMBER 16, 2011

Federal Emergency Management Agency

TAB Industrial Park Project - Drainage Analysis
Storage Calculations

100 year

Qo = Maximum Release Rate

i = intensity (in/hr)

Storm Duration (min)	i (in/hr)	Qpeak (CFS)	Qo (CFS)	Storm Runoff Volume (CF)	Required Storage Volume (CF)
10	7.60	168.5	110.21	101120	34996
12	7.10	157.4	110.21	113361	34012
15	6.6	146.4	110.21	131723	32536
20	5.8	128.6	110.21	154342	22092
30	4.6	102.0	110.21	183613	-14761
45	3.7	82.0	110.21	221534	-76028

10 year

Qo = Maximum Release Rate

i = intensity (in/hr)

Storm Duration (min)	i (in/hr)	Qpeak (CF)	Qo (CF)	Storm Runoff Volume (CF)	Required Storage Volume (CF)
10	4.80	96.0	37.31	57588	35202
12	4.80	96.0	37.31	69105	42242
15	4.4	88.0	37.31	79183	45604
20	3.8	76.0	37.31	91180	46408
30	3	60.0	37.31	107977	40819
45	2.5	50.0	37.31	134971	34234

2 year

Qo = Maximum Release Rate

i = intensity (in/hr)

Storm Duration (min)	i (in/hr)	Qpeak (CF)	Qo (CF)	Storm Runoff Volume (CF)	Required Storage Volume (CF)
10	3.40	59.2	6.17	35532	31830
12	3.20	55.7	6.17	40130	35688
15	2.8	48.8	6.17	43893	38339
20	2.4	41.8	6.17	50163	42758
30	1.9	33.1	6.17	59568	48462
45	1.4	24.4	6.17	65839	49178
60	0.9	15.7	6.17	56433	34219
75	0.4	7.0	6.17	31352	3585