Mixed Use Development
To match community needs.
Includes:

- 75 Affordable Homes
- 30 Affordable Apartments
- Rural America Initiative (RAI)
- 14 acres General Commercial
JOHNSON RANCH IS LOCATED WITHIN THE UNNAMED TRIBUTARY DRAINAGE BASIN

ADOPTED UNNAMED TRIBUTARY DRAINAGE BASIN PLAN 1991
ADOPTED UNNAMED TRIBUTARY DRAINAGE BASIN PLAN 1991
Drainage flows per the Unnamed Tributary adopted Plan match DOT capacity across Elk Vale Road.
Section Four – Storm water

4.1 General Criteria

4.1.1 Multi-purpose Use

Multi-purpose use of all drainage facilities shall be considered in the design of those facilities. Small local parks, greenbelts, nature trails, bike trails and similar facilities will be incorporated with major drainage facilities whenever possible, as long as the hydraulic capacity of the facility is not compromised by these alternate uses.

4.1.2 Storm water Transfer

The design of storm water drainage systems shall not result in the inter-basin transfer of drainage, unless no reasonable alternative exists and there is no legal restraint preventing such transfer.

4.1.3 Access to Facilities

Easements, right-of-ways or other legal access shall be provided to all storm water drainage facilities for inspection, maintenance, or repair.

4.1.4 Operation and Maintenance

Operation and maintenance of storm water drainage facilities shall be required to insure that these facilities will perform as designed. Prior to the construction of any storm water drainage facility, the responsibility for the operation and maintenance of that facility shall be determined.

4.1.5 Planning Requirements

All development shall conform to an approved Drainage Basin Design Plan. If no plan exists for the area of the proposed development, the City may: (1) waive this requirement, (2) require the development to provide the necessary data; or, (3) declare a “study area” per City ordinance until a Drainage Basin Design Plan is completed.
DESIGN PLAN
FOR
PERRINE DRAINAGE BASIN

SEPTEMBER 30, 1999

PREPARED FOR:
CITY OF RAPID CITY
RAPID CITY, SOUTH DAKOTA

FMG, INC. 2753 Sturgis Road, Rapid City, South Dakota 85772-9317 605/348-4106 FAX 605/348-4222
JOHNSON RANCH SUBDIVISION
DRAINAGE BASIN DESIGN

Drainage Study Prepared by KTM and Submitted
By Yasmeen Dream, LLC on December 14, 2017
Basin Flows submitted by Yasmeen Dream on December 14, 2017
PERRINE & UNNAMED TRIBUTARY DRAINAGE REPORT 2018

FMG TOTAL FLOW = 818 CFS
ESTIMATED COSTS:
2-DBL 3X7 = $500,000
2-DBL 3X7 = $300,000
CHANNEL = $200,000
BORES = $950,000
PONDS = $150,000
DESIGN = $200,000
CONTIN. = $300,000
EASEMENTS = $400,000
TOTAL = $3,000,000
ESTIMATED COSTS
2-DBL 3x7 = $500,000
CHANNEL = $450,000
DESIGN = $100,000
CONTIN. = $150,000
EASEMENTS = $400,000
TOTAL = $1,600,000
PERRINE & UNNAMED TRIBUTARY DRAINAGE REPORT 2018

FMG TOTAL FLOW = 818 CFS
THANK YOU
The adopted basin plans

West boundary of Unnamed Tributary Basin matches the East boundary of Perrine Basin
Basin Flows submitted by Yasmeen Dream on December 14, 2017

- TOTAL FLOW= 839 cfs
- Recommended a channel along West side of Elk Vale Road
PERRINE & UNNAMED TRIBUTARY
DRAINAGE REPORT 2018
PERRINE & UNNAMED TRIBUTARY DRAINAGE REPORT 2018

FMG TOTAL FLOW = 818 CFS