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Rapid City Council  
Manager

PENNINGTON COUNTY HOUSING  
AND REDEVELOPMENT  
LOTS 1 THRU 5 AND LOTS 13 THRU 18, BLOCK 1. MacARTHUR SUBDIVISION,  
SEC.25, T2N, R7E, BHM, RAPID CITY,  
PENNINGTON COUNTY, SOUTH DAKOTA, USA.  
Garage Additions  
Project #09.1594.001

June 12, 2009

Planned Development Submittal

### General Work

The work proposed for this project includes the construction of three attached and eleven detached garages with the associated concrete driveway additions. The garage will be sided with new metal siding to match the house. Site grading will be addressed to provide positive drainage away from new garages and existing houses. An addition to the existing lawn irrigation system will be provided at the front yards and the boulevard. The site lighting will be upgraded with new poles and lights in the rear yard open space.

### Drainage

The existing site conditions include single family residences and concrete driveways on each lot with an established playground centrally located in the eleven lots. The proposed site conditions will increase the amount of building rooftops and concrete areas. Assuming a 5-minute time of concentration the overall increase in flow if concentrated would be less than 1.0 cfs in all three storm events considered. Calculations for these are shown in the following spreadsheets.

### Erosion and Sediment Control

Generally, stormwater runoff will collect in a swale along the rear yards of the lots adjacent to MacArthur Street. Some minimal grading will be required to extend the length of this swale to maneuver around the proposed garages. Compost wattles are shown on the plans surrounding the proposed garages and as inlet protection in order to minimize the volume of sediment that could possibly reach the existing storm sewer system along MacArthur Street and Wood Avenue.