KEY PRELIMINARY SHORT PLAT SUBMITAL
SITE DRAINAGE AND HYDRAULIC NARRATIVE

CONCEPTUAL DRAINAGE PLAN

This site consists of roughly 430 feet of linear road improvements for the extension of Maxine Avenue to the west. As part of this design, a drainage report will be completed showing calculations for runoff, treatment, and conveyance of stormwater to the existing public storm system to the east. It is assumed that infiltration will not be an option based on existing soil conditions in this area and adjacent developments. From the predevelopment meetings with the City of Spokane, on-site detention has been ruled out from the scope of this project. Instead water will be conveyed to a regional stormwater facility operated by the City in exchange for an additional stormwater fee paid by the developer prior to construction.

There will be approximately 20,000 square feet of pollutant-generating impervious surface (PGIS) created with this development. Stormwater from this area will be sheet drained towards the south to one of four proposed bioretention swales located in the public right-of-way. From there, water will be discharged from the bioretention swales to a hard-piped gravity main running to the existing city system in the Cheltonham Addition adjacent to the east.

HYDRAULIC ANALYSIS

There are no known hydraulic issues with the water system in this area. During the predevelopment meeting with the City of Spokane, we were given the hydrostatic pressure at the existing hydrant located at the intersection of Maxine Avenue and Cannon Street to be 55PSI. The hydrostatic pressure of our proposed hydrant on the north side of Maxine Avenue (STA. 27+25) is calculated as 51.5PSI. With a fire flow test, additional information can be provided prior to final design. If pressure is projected to drop below 20 PSI during fire flow conditions (1500GPM), the 8-inch water main will be upsized as required.