

KEY PRELIMINARY SHORT PLAT SUBMITTAL SITE DRAINAGE AND HYDRAULIC NARRATIVE

CONCEPTUAL DRAINAGE PLAN

This site consists of roughly 430 linear feet of 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 our point of compliance at the west end of the existing drainage basin. Based on a geotechnical report completed for the site, infiltration will not be sufficient to meet the stormwater demands and drywells will be unsuitable in this area due to the shallow depth of bedrock.

There will be approximately 20,000 square feet of pollutant-generating impervious surface (PGIS) created with this development. Drainage will be conveyed into a bioretention treatment swale on the far east of the site for water treatment and routed into an adjacent detention facility. From there, water will be metered with an outlet control structure to comply with allowable release rates and flow to the far west end of the site to an energy dissipation catch basin and gravel gallery where water will be released.

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.