

CS, to a depth of ± 9 feet (Elevation ± 852 feet) at Boring B3-A CS, to depths of ± 24 feet to ± 27 feet (Elevations ± 856 feet to ± 851 feet) at Bent-2 for the steel span structure, to depths of ± 22 feet to ± 17 feet (Elevations ± 856 feet to ± 860 feet) at Bent-4 for the concrete span structure, to depths of ± 17 feet to ± 23 feet (Elevations ± 866 feet to ± 859 feet) at Bent-3 for the steel span structure/Bent-5 for the concrete span structure, to a depth of ± 37 feet (Elevations ± 866 feet to ± 865 feet) at Bent-6 for the concrete span structure, and to depths of ± 39 feet to ± 44 feet (Elevations ± 883 feet to ± 884 feet) at End Bent-2. Residual soil underlies a weathered rock zone at Boring EB1-B, and occurs as a zone within the weathered rock at Boring EB1-B between depths of ± 63 feet and ± 66 feet (Elevations ± 849 feet and ± 846 feet). Residual soil also occurs as a zone within the weathered rock at Boring B1-A SS between depths of ± 10 feet and ± 15 feet (Elevations ± 851 feet and ± 846 feet), and at Boring B3-B SS/B5-B CS between depths of ± 21 feet and ± 23 feet (Elevations ± 861 feet and ± 859 feet). The residual soils generally consist of loose to very dense, silty, coarse to fine sand with rock fragments (A-1-a, A-1-b and A-2-4); and soft to hard, variably clayey, coarse to fine sandy silt (A-4), and silty, coarse to fine sandy clay (A-6 and A-7-6). Standard Penetration Resistance values within the residuum ranged from 4 and 91 bpf.

Weathered rock was encountered directly underlying the alluvial or residual soils at all borings drilled for this project. The depths and elevations at which the weathered rock was initially encountered are as follows: ± 57 feet and ± 47 feet (Elevations ± 855 feet and ± 865 feet) and End Bent-1, ± 32 feet ± 34 feet (Elevations ± 848 feet to ± 847 feet) at Bent-1 for the concrete span structure, ± 3 feet (Elevations ± 858 feet to ± 855 feet) at Bent-1 for the steel span structure, ± 2 feet to ± 3 feet (Elevations ± 856 feet to ± 853 feet) at Bent-2 for the concrete span structure, ± 9 feet to ± 4 feet (Elevations ± 852 feet to ± 858 feet) at Bent-3 for the concrete span structure, ± 24 feet to ± 27 feet (Elevations ± 856 feet to ± 851 feet) at Bent-2 for the steel span structure, ± 22 feet to ± 17 feet (Elevations ± 856 feet to ± 860 feet) at Bent-4 for the concrete span structure, ± 17 feet to ± 14 feet (Elevations ± 866 feet to ± 868 feet) at Bent-3 for the steel span structure/Bent-5 for the concrete span structure, ± 37 feet (Elevations ± 866 feet to ± 865 feet) at Bent-6 for the concrete span structure, and ± 39 feet to ± 44 feet (Elevations ± 883 feet to ± 884 feet) at End Bent-2. Weathered rock was also encountered as zones within the crystalline rock at the Boring B3-A SS/B5-A CS between depths of ± 31 feet and ± 34 feet (Elevations ± 852 feet and ± 849 feet), and at Boring B3-B SS/B5-B CS between depths of ± 23 feet and ± 25 feet (Elevations ± 859 feet and ± 857 feet). As discussed in the previous paragraph, residual soil was encountered underlying a weathered rock zone at Boring EB1-B, and as zones within the weathered rock at Boring EB1-B, Boring B1-A SS, and Boring B3-B SS/B5-B CS. The weathered rock generally consists of severely weathered, very soft to medium hard, metamorphosed granitic rock and biotite schist with varying

amounts of mica and with very close to close fracture spacing. The End Bent-1 borings, Boring B1-B CS, and Boring EB2-A were terminated within weathered rock.

Crystalline rock was encountered underlying the weathered rock at all of the borings drilled for this project with the exception of the End Bent-1 borings, Boring B1-B CS, and Boring EB2-A (crystalline rock was not encountered at these borings). The depths and elevations at which the crystalline rock was initially encountered are as follows: ± 41 feet (Elevation ± 839 feet) at Boring B1-A CS, ± 18 feet to ± 20 feet (Elevations ± 843 feet to ± 838 feet) at Bent-1 for the steel span structure, ± 16 feet to ± 18 feet (Elevations ± 843 feet to ± 838 feet) at Bent-2 for the concrete span structure, ± 13 feet to ± 16 feet (Elevations ± 847 feet to ± 846 feet) at Bent-3 for the concrete span structure, ± 32 feet to ± 37 feet (Elevations ± 849 feet to ± 841 feet) at Bent-2 for the steel span structure, ± 29 feet to ± 26 feet (Elevations ± 849 feet to ± 851 feet) at Bent-4 for the concrete span structure, ± 28 feet to ± 15 feet (Elevations ± 854 feet to ± 867 feet) at Bent-3 for the steel span structure/Bent-5 for the concrete span structure, ± 57 feet to ± 49 feet (Elevations ± 845 feet to ± 853 feet) at Bent-6 for the concrete span structure, and ± 54 feet (Elevation ± 875 feet) at Boring EB2-B. As discussed in the previous paragraph, weathered rock was encountered as zones within the crystalline rock at Boring B3-A SS/B5-A CS, and at Boring B3-B SS/B5-B CS. The crystalline rock generally consists of metamorphosed granite, biotite-mica schist, and biotite schist with isolated biotite gneiss. Boring EB2-B was terminated on crystalline rock, while the interior bent borings, with the exception of Boring B1-B CS, were terminated in crystalline rock.

Between ± 26 and ± 38 feet of weathered rock/crystalline rock was cored at each of the interior bent borings. Rock coring was not performed at the end bent borings. In general, the cored weathered rock is severely weathered, very soft to medium hard, metamorphosed granitic rock and biotite schist with varying amounts of mica and with very close to close fracture spacing. Strata recovery (REC) values within the weathered rock ranged from 0 to 68 percent. In general, the cored crystalline rock is moderately severely to very slightly weathered, medium hard to very metamorphosed granite and biotite schist with varying amounts of mica, isolated zones of biotite gneiss, and with very close to moderately close spacing. Strata (REC) values within the crystalline rock ranged from 62 to 100 percent and strata Rock Quality Designation (RQD) values ranged from 0 to 100 percent. The majority of the crystalline rock encountered was of very poor to poor quality.