RCOL2_02.0 4.12-9, 13, 14, and 15

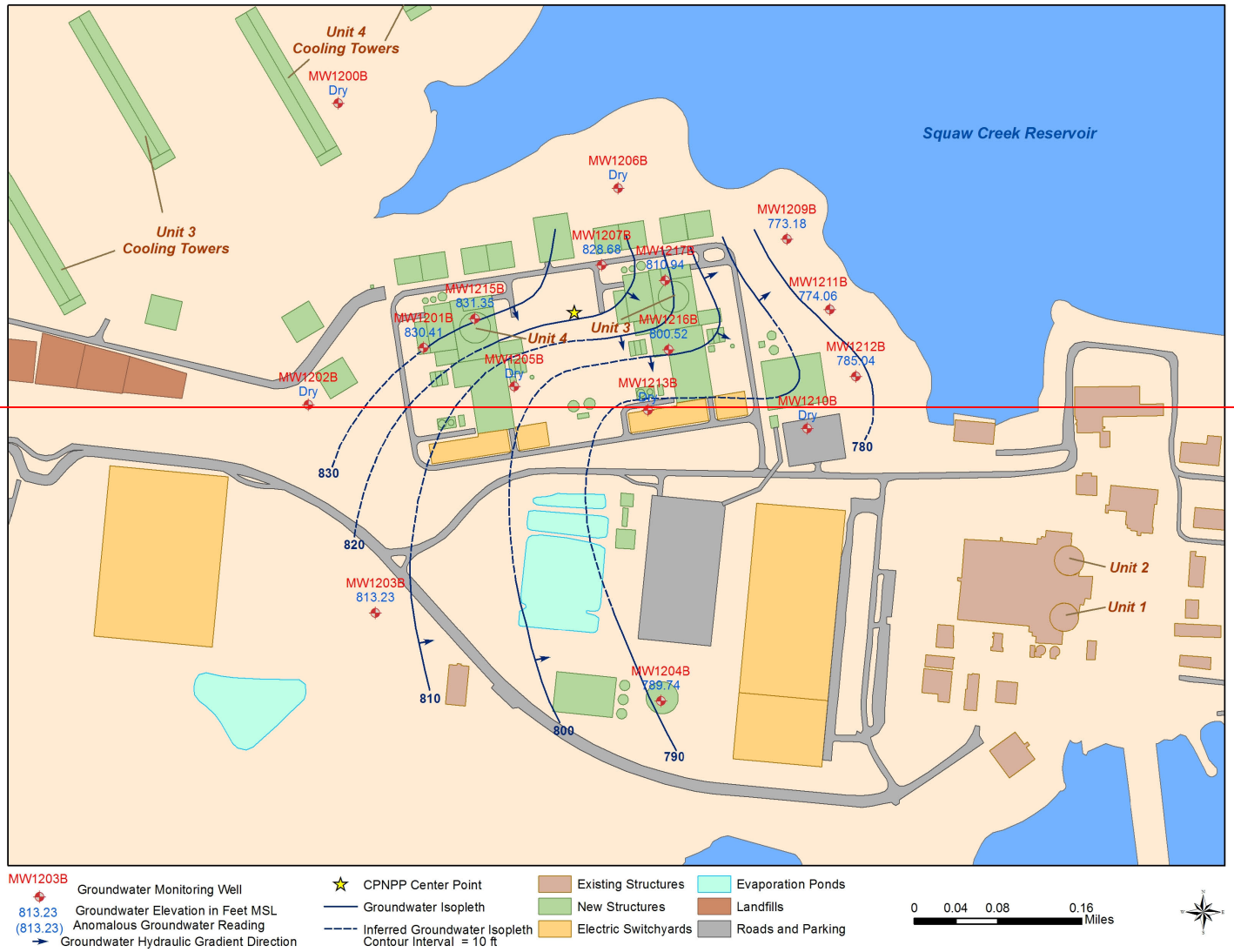

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 5 of 12)~~

RCOL2_02.0
4.12-9, 13,
14, and 15

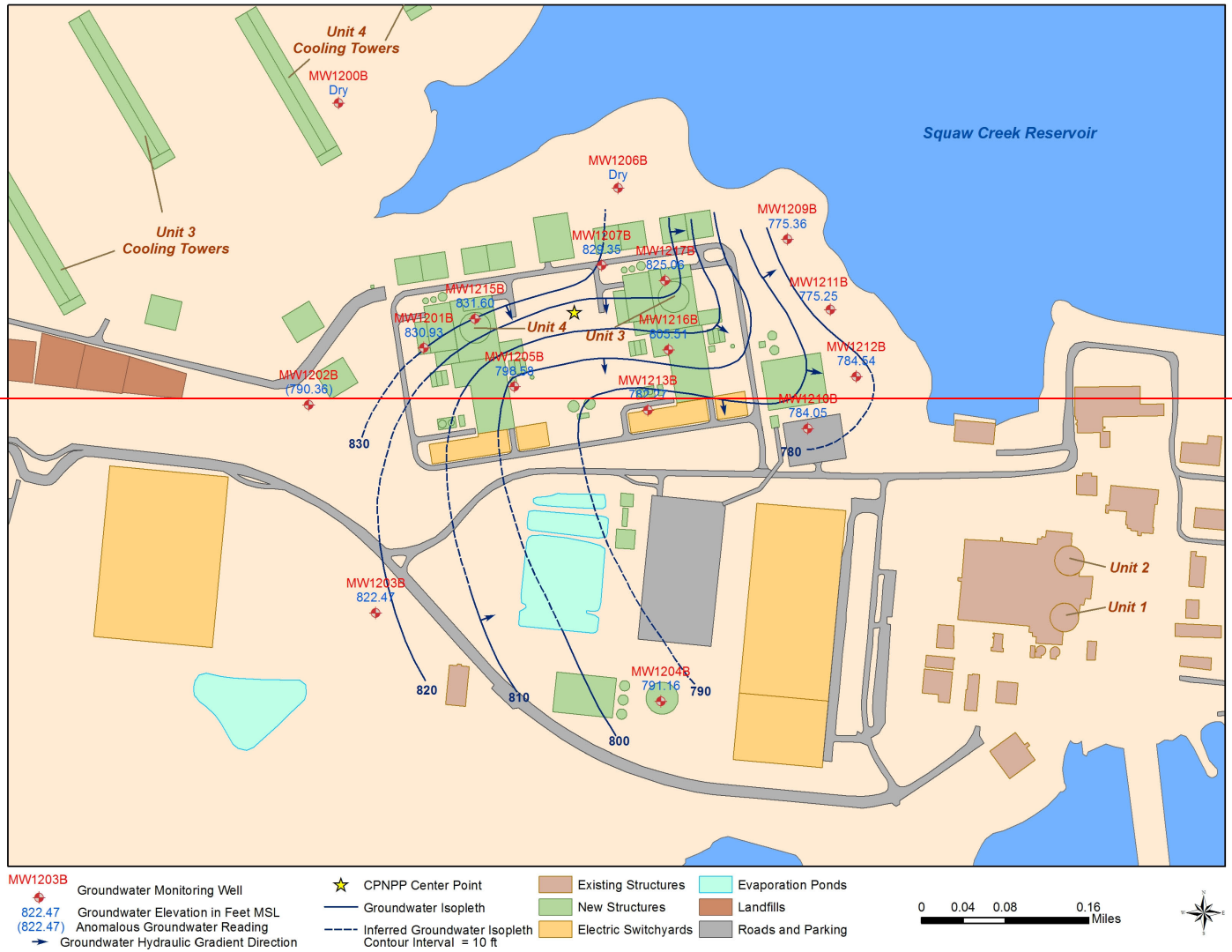

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 6 of 12)~~

RCOL2_02.0 4.12-9, 13, 14, and 15

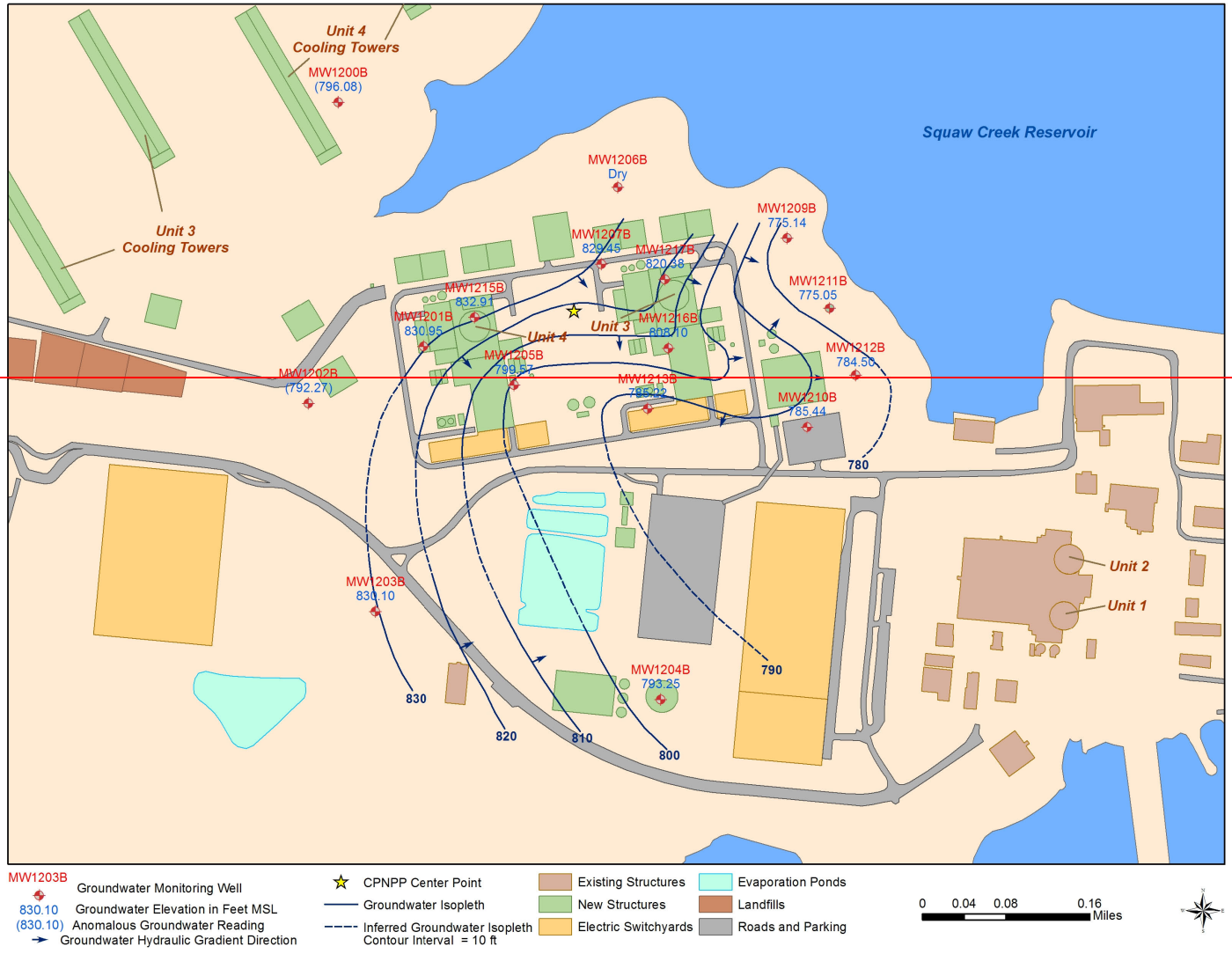

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 7 of 12)~~

RCOL2_02.0
4.12-9, 13,
14, and 15

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 8 of 12)~~

RCOL2_02.0 4.12-9, 13, 14, and 15

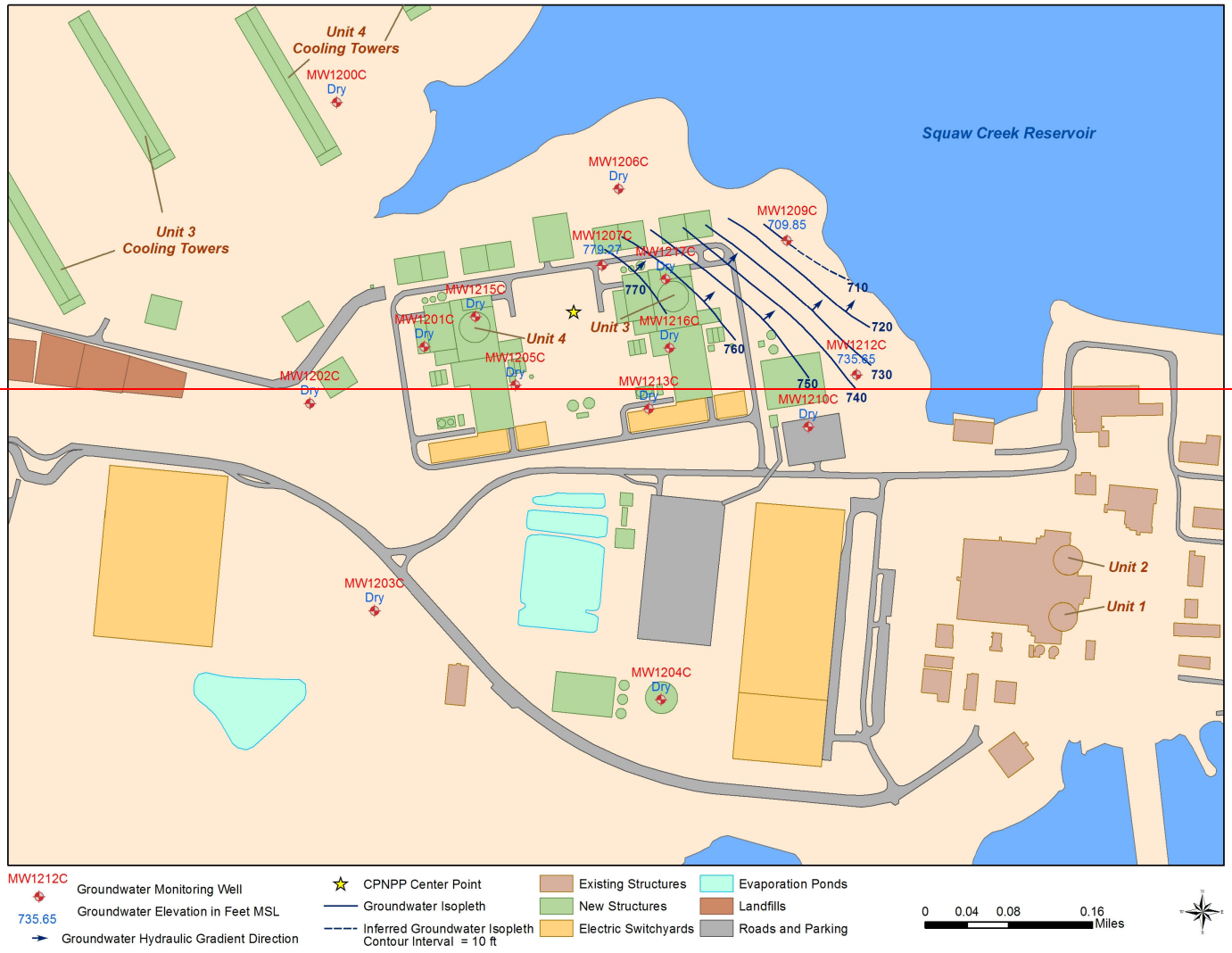

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 9 of 12)~~

RCOL2_02.04.12-9, 13, 14, and 15

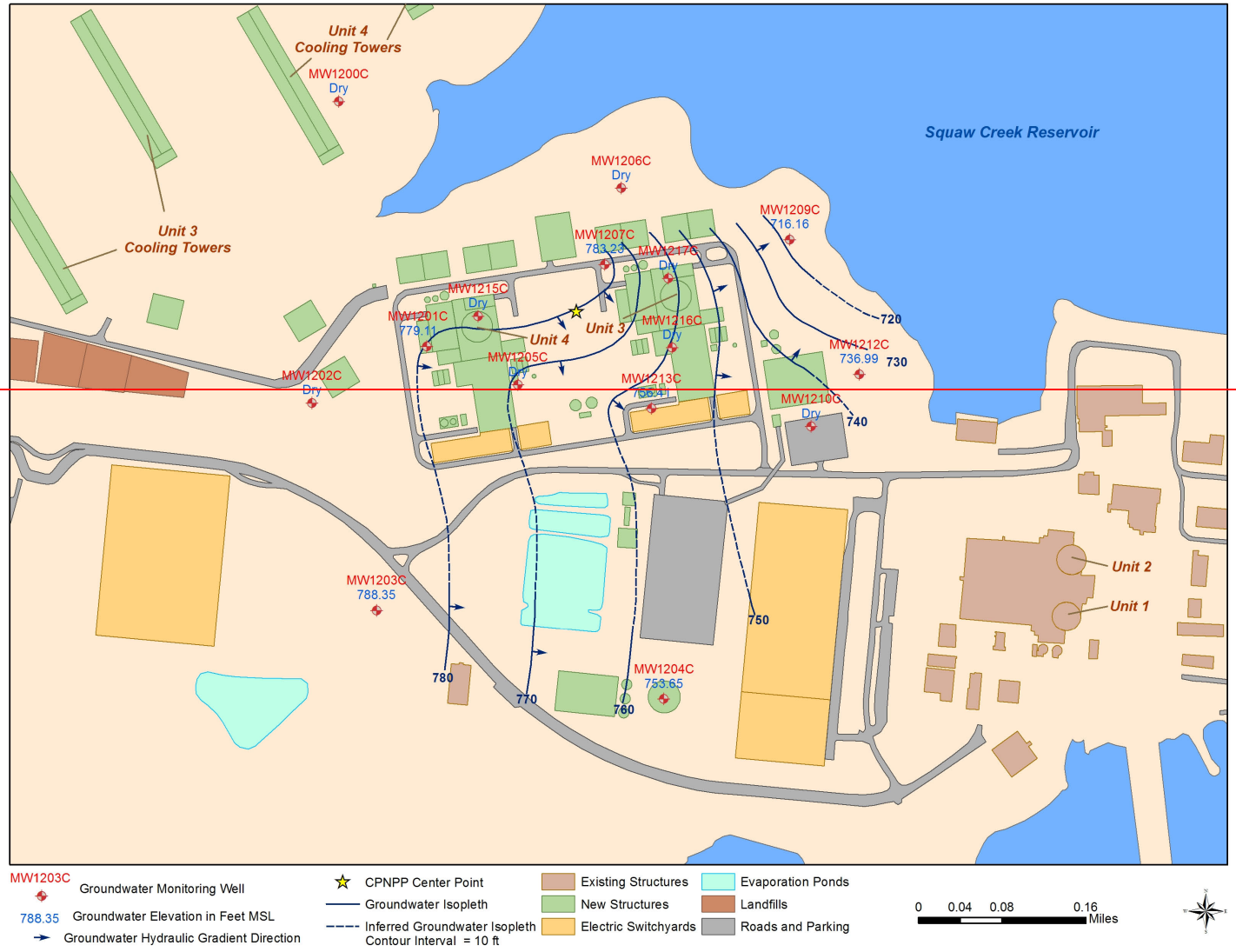

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 10 of 12)~~

RCOL2_02.0
4.12-9, 13,
14, and 15

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 11 of 12)~~

RCOL2_02.0
4.12-9, 13,
14, and 15

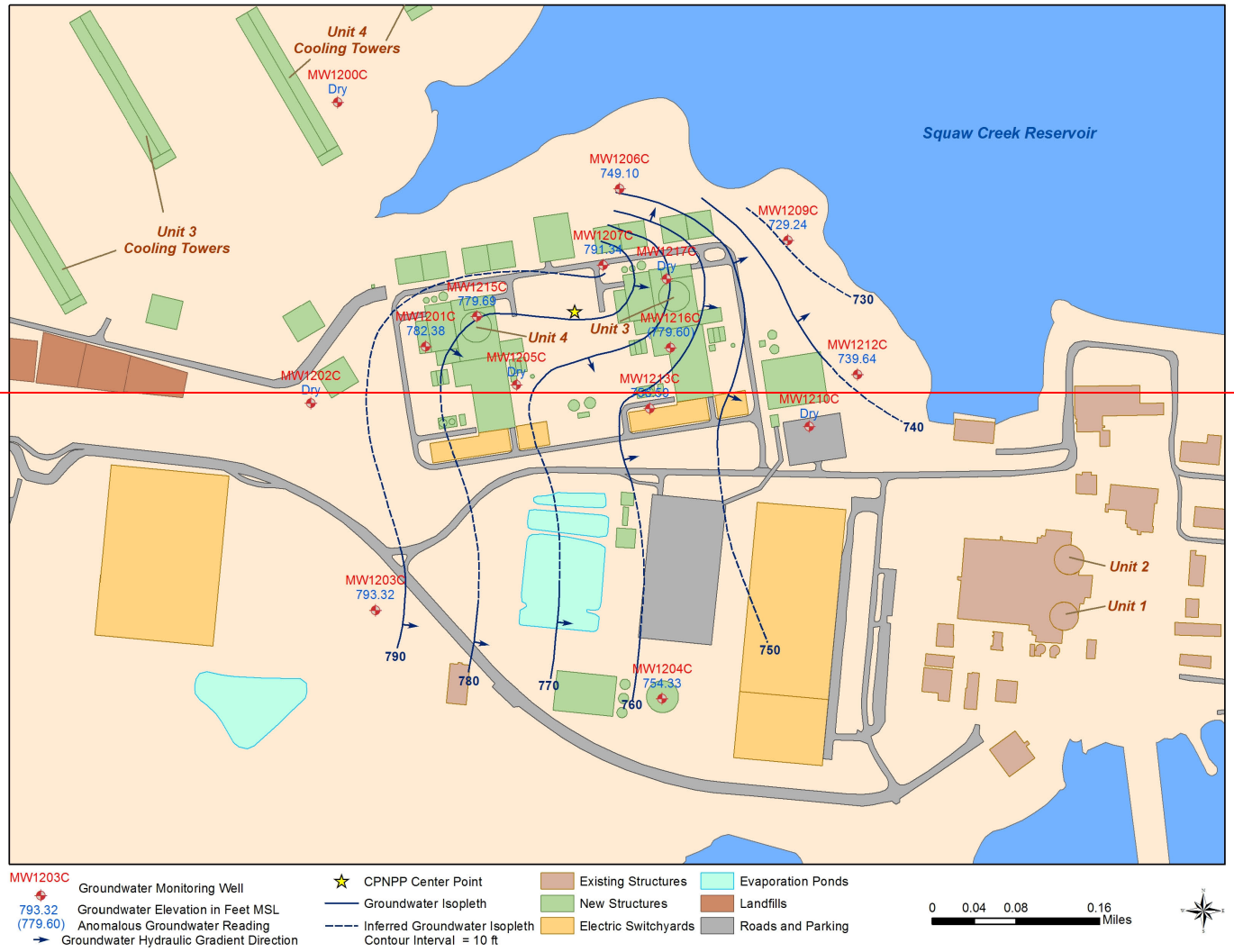

Figure 2.4.12-210 ~~Potentiometric Surface Maps (Sheet 12 of 12)~~

RCOL2_02.0
4.12-9, 13,
14, and 15

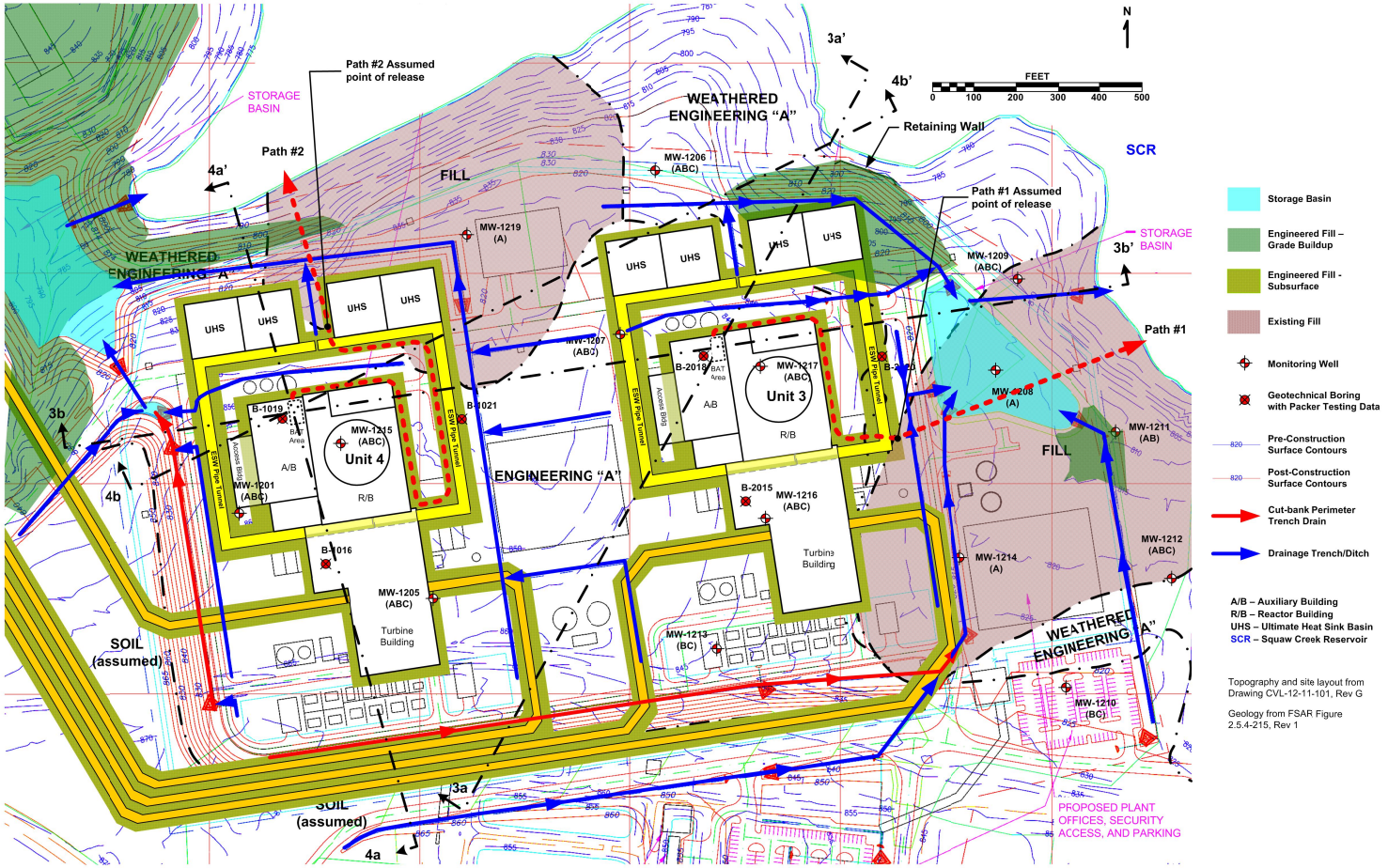

Figure 2.4.12-212 Groundwater Flow Path

RCOL2_02.04.12-9, 13, 14, and 15

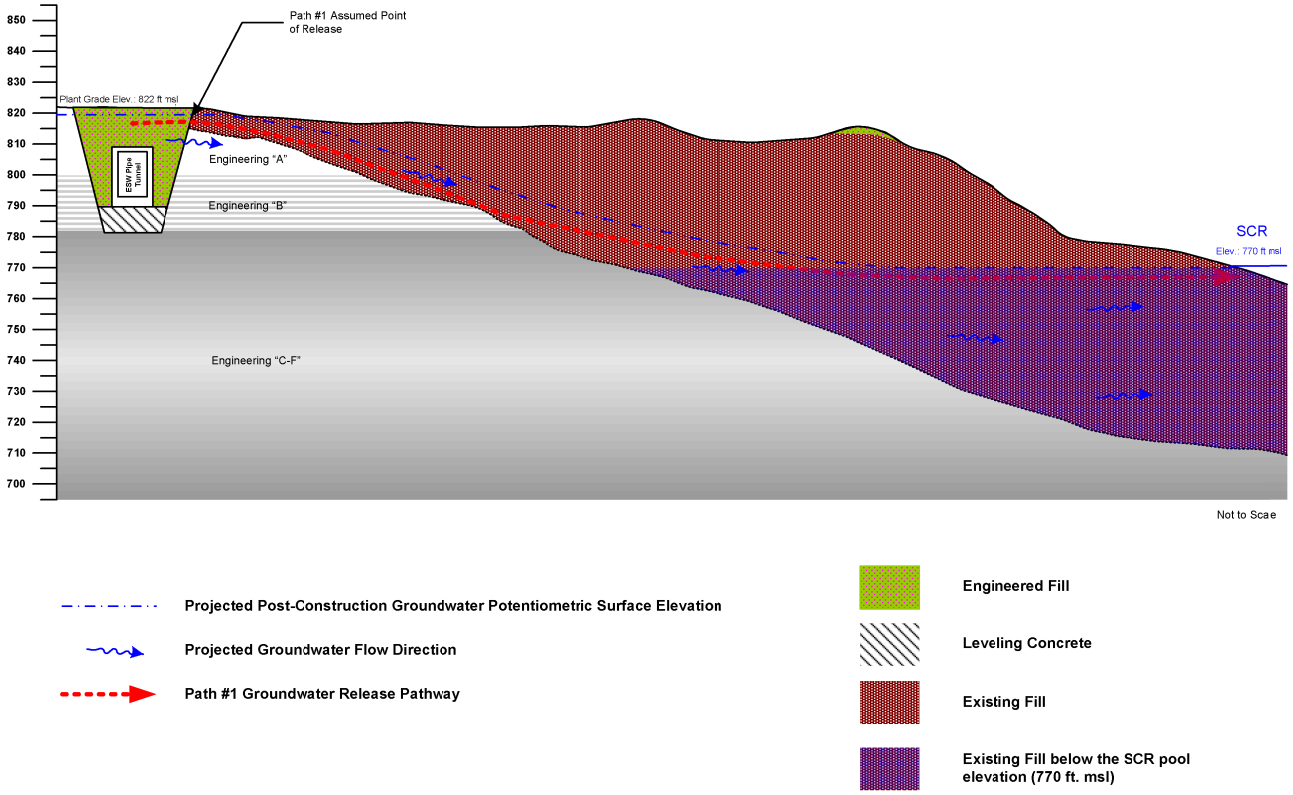

Figure 2.4.12-213 Post Construction Release ~~Flowpath~~Flow Path #1

RCOL2_02.0
4.12-9, 13,
14, and 15

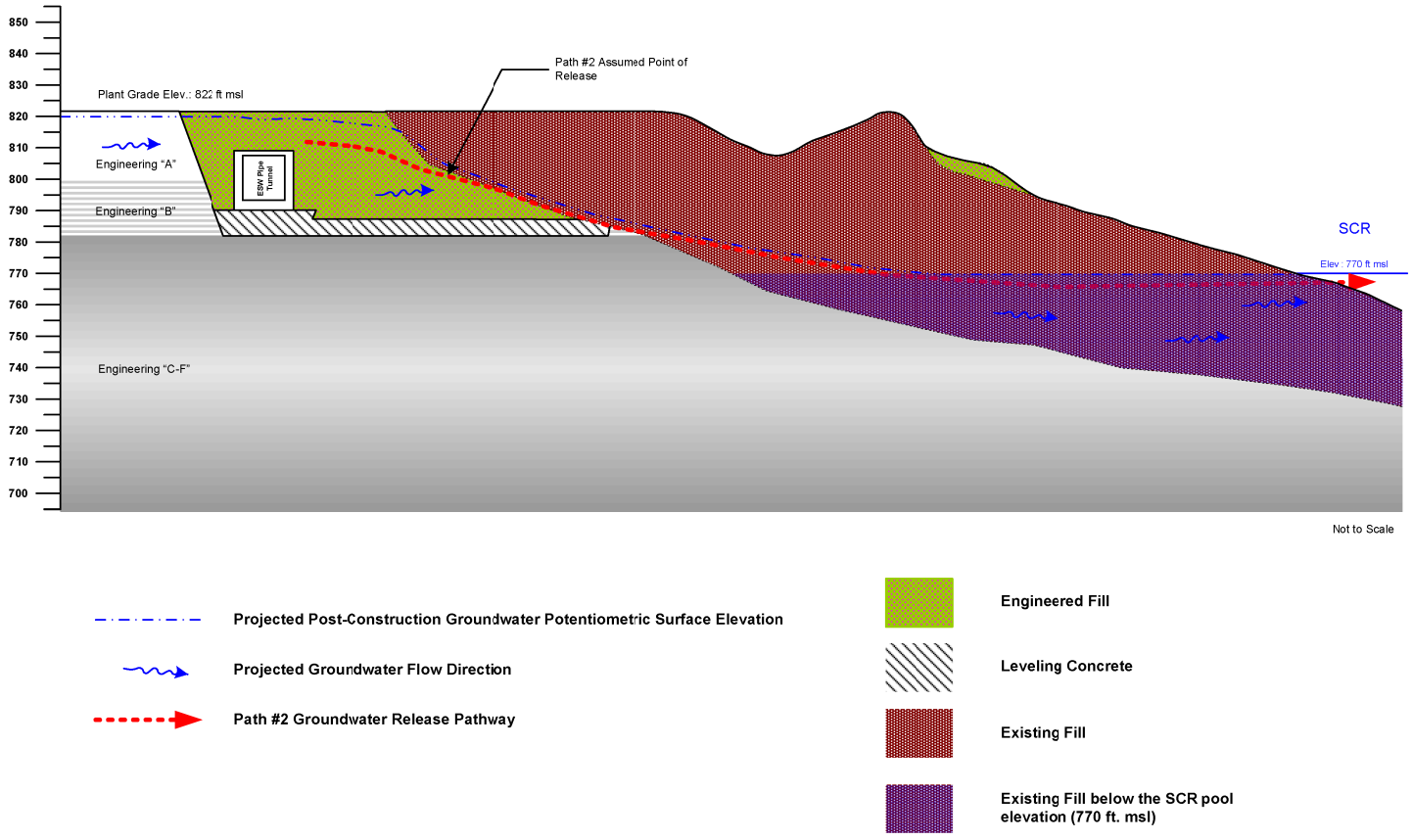

Figure 2.4.12-214 Post Construction Release ~~Flowpath~~Flow Path #2

limestone of the Glen Rose is tightly compacted, and no indications of secondary alteration were noted.

2.5.1.2.5.5 Groundwater

Withdrawal of groundwater from aquifers beneath the site does not pose a risk of subsidence at the current withdrawal rates. A discussion of groundwater ~~conditions~~withdrawals for the site is provided in ~~Subsection 2.4.1~~Subsection 2.4.12. The strata underlying the site are cemented limestones and indurated shales of the Glen Rose Formation underlain by semi-indurated to indurated sandstones and silty sandstones of the Twin Mountains Formation. The uppermost potable aquifer beneath the site is within the Twin Mountains Formation. ~~The groundwater table in the CPNPP Units 3 and 4 area, determined from monitoring wells, is about elevation 740 ft msl (about 82 ft below the yard grade elevation, 822 ft msl).~~ The measured data from the regolith and upper Glen Rose Formation monitoring wells within the CPNPP Units 3 and 4 area suggest that the piezometric levels range between about elevation 775 ft and 858 ft, with a number of wells remaining dry. Observed piezometric levels are considered to be localized perched water in the upper zone of the Glen Rose Formation and could possibly be attributed to surface run-off rather than a true indication of permanent groundwater at the site. A discussion of groundwater conditions for the site is provided in Subsection 2.4.12.The low compressibility of these materials and the lithified nature of the overlying Glen Rose Formation are not conducive to settlement caused by groundwater draw-down. RCOL2_02.04.12-9 RCOL2_02.04.12-9

Perched water is noted within the Glen Rose Formation and may be encountered during excavation for CPNPP Units 3 and 4; however, the extent and volumes are anticipated to be low due to the low hydraulic conductivity of the Glen Rose Formation and the lack of extensive joints and fractures.

2.5.1.2.5.6 Reservoir Effects

No adverse effects due to the construction of man-made reservoirs in the CPNPP area, including SCR, Lake Granbury, and Lake Whitney, have been noted (Figure 2.5.1-218). The SCR is located immediately to the north of the CPNPP Units 3 and 4 site. Groundwater conditions are discussed in ~~Subsection 2.4.1~~Subsection 2.4.12. CTS-01141

No reservoir-induced earthquakes have been noted since the construction of SCR and other large reservoirs in the site area. This absence may be attributed to the low hydraulic conductivity of the subsurface materials as well as to lack of faults or planes of weakness that may respond to increased pore fluid pressure from the downward migration of water from the reservoirs.

The pool elevation of SCR is 775 ft msl. The excavation for CPNPP Units 3 and 4 extends to approximately elevation 782 ft msl to facilitate removal of a shale layer, so that the Category 1 structures are directly founded on a limestone layer or fill concrete, at elevation 782 ft msl, as discussed in Subsection 2.5.4. There are two

RCOL2_02.04.12-9

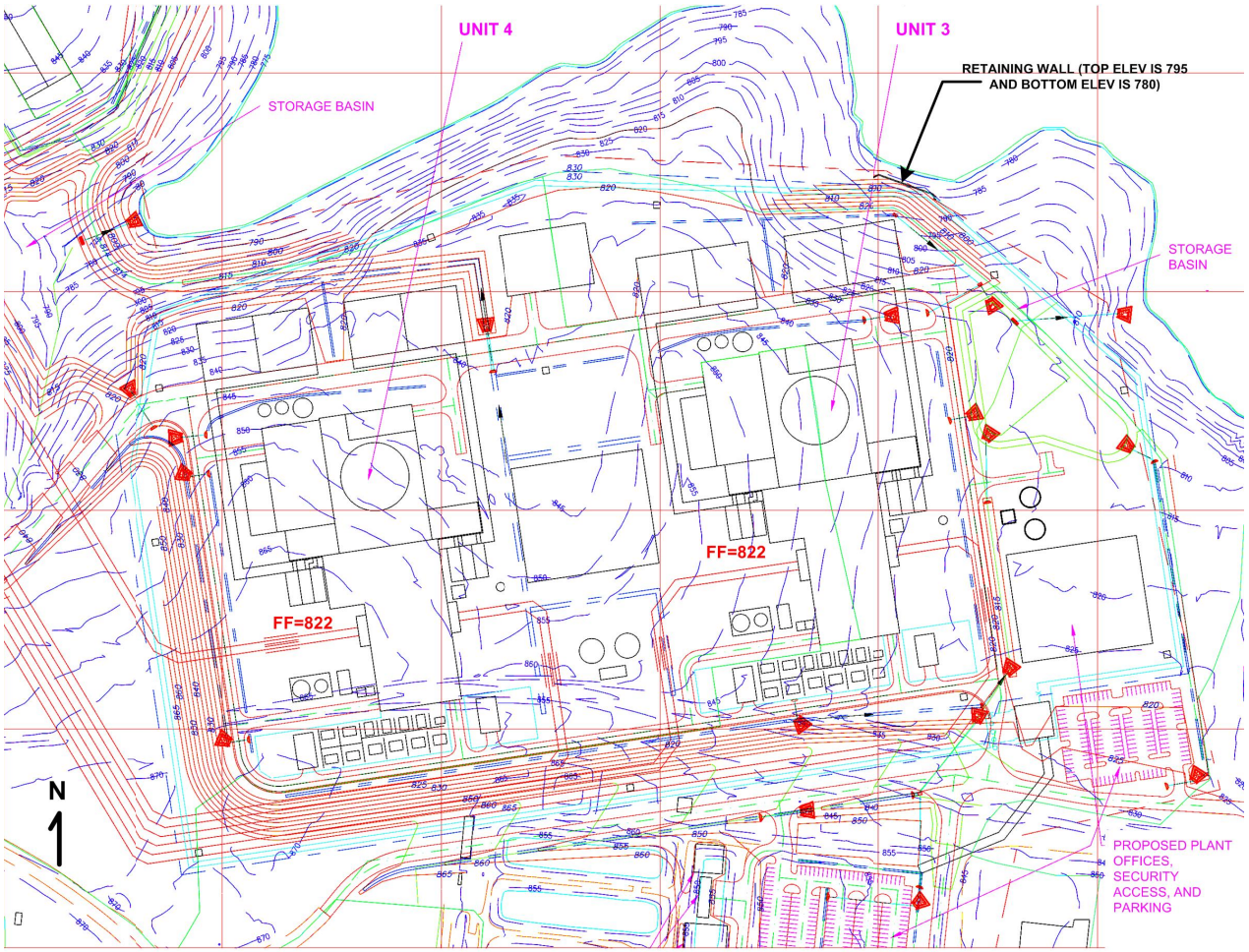

Figure 2.5.5-204 Site Grading Map