Figure 22: Overall condition of typical bays at the most severely deteriorated sections of the bridge between Bents 12 and 30.

Figure 23: Typical condition of girders and deck soffit at west end of viaduct.

Figure 24: Typical conditions of girders and deck soffit at east end of viaduct between roughly Bents 31 through 39.

Figure 25: Leaking joint in deck deposits water on top of bent cap. Water migrates into cracks at top of member and emerges through cracks in the face.

Figure 26: Water leaking from a typical horizontal column crack at bent cap.

Figure 27: Crack at surface of column with two generations (colors) of epoxy injection and the crack has reopened.

Figure 28: Core with a portion of an epoxy injected crack. Note that the fine cracks have not had penetration.

Figure 29: Severely distressed core with lowest f'c = 1510 psi. Test made on portion from 1-inch to 7-inch depth. Core 31, girder diaphragm above bent cap at Bent 9.

Figure 30: Close-up of the portion of Core C31 that was tested.

Figure 31: Core with median value of compressive strength (f'c = 2790 psi) for severely distresses cores. Test made on portions from 10-inch to 16-inch depth. Core C23, south column, south elevation, Bent 6.

Figure 32: Close-up of portion of Core C23 tested.

Figure 33: Core with second highest compressive strength value of severely distressed cores (f'c = 4620 psi). Test made of portion from 2 ½-inch to 7 ½-inch depth, total column thickness approximately 9 feet. Core C2 from middle column, south elevation Bent 21.

Figure 34: Close-up of portion of Core C2. Note the tested portion of the core had been previously injected with epoxy.

Figure 35: Core with severe distress rating with highest compressive strength test result, f'c = 5250 psi. Test made on portion from 0 to 3 ½-inch depth. Core A1, deck at Bent 28.2, Grid B-C.

Figure 36: Core with medium distress that had highest compressive strength value of all cores, f'c = 5770 psi. Test made on portion from 19 ½-inch to 23 ½-inch depth. Core C6 from south column, east elevation at Bent 33. Total column thickness is roughly 9 feet.

Figure 37: Close-up of portion of Core C6 that was tested.

Figure 38: Core with no visible cracking that had median compressive strength value (f'c = 3830 psi) of cores with light or no distress. Core was tested from 10-inch to 17 ½-inch depth.

Figure 39: Close-up of portion of Core C8 that was tested.

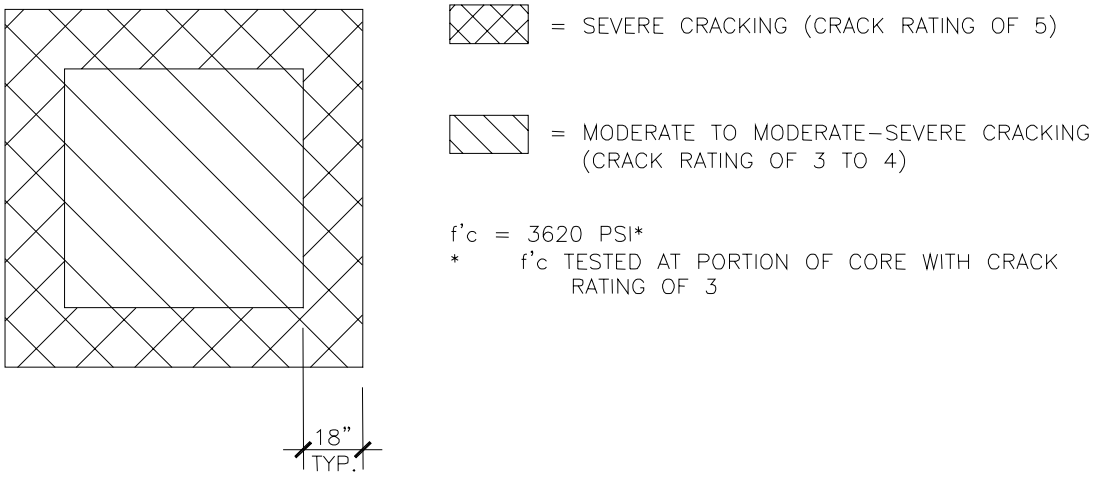


FIGURE 40 - COLUMN CROSS-SECTION BASED ON CRACKING IN CORE C47

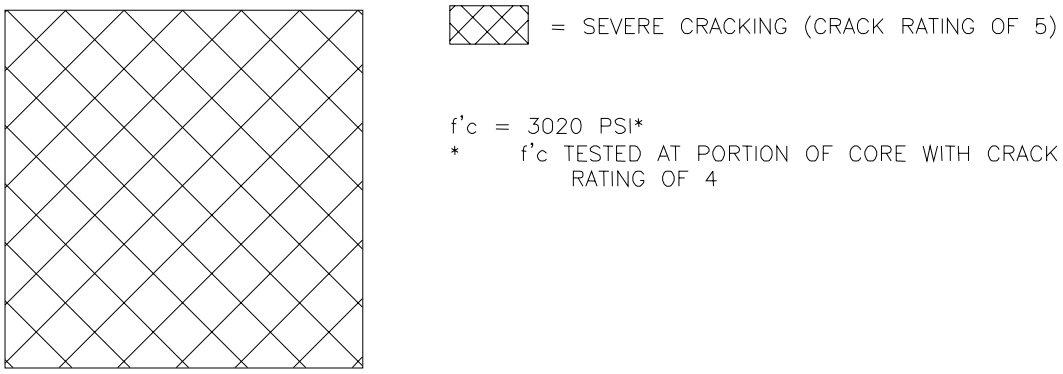
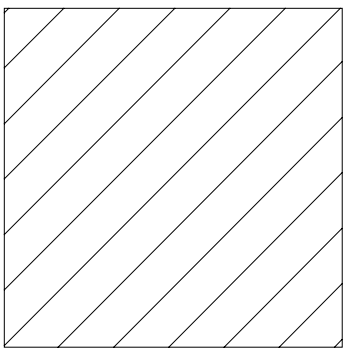


FIGURE 41 - COLUMN CROSS-SECTION BASED ON CRACKING IN CORE C16

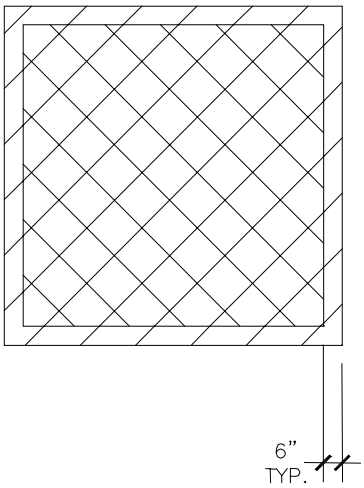
NOTE: THE COMPRESSIVE STRENGTH TEST RESULT WAS TYPICALLY OBTAINED FROM THE SOUND PORTION OF SEVERLY CRACKED CORE SAMPLES.



= RANDOM RANGE OF SEVERE TO MODERATE CRACKING.

f'c = 2660 PSI AND 3620 PSI*
* f'c TESTED AT PORTIONS OF CORES WITH A CRACK RATING OF 3

FIGURE 42 - COLUMN CROSS-SECTION BASED ON CRACKING IN CORES C11 AND C50



= MODERATE TO MODERATE–SEVERE CRACKING (CRACK RATING OF 4)

= SEVERE CRACKING (CRACK RATING OF 5)

f'c = 2080 PSI AND 3080 PSI*
* f'c TESTED AT PORTIONS OF CORES WITH A CRACK RATING OF 4

FIGURE 43 - COLUMN CROSS-SECTION BASED ON CRACKING IN CORES C33 AND C43

NOTE: THE COMPRESSIVE STRENGTH TEST RESULT WAS TYPICALLY OBTAINED FROM THE SOUND PORTION OF SEVERLY CRACKED CORE SAMPLES.

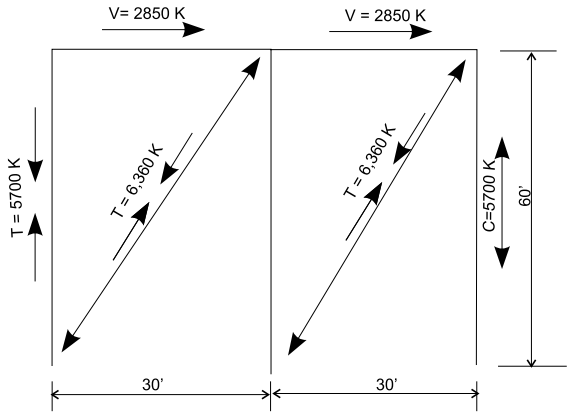


Figure 44: Strut/tie model at Bent 23.