

Figure 7-4. M/S Local Model Liner Details from Pretest Analysis

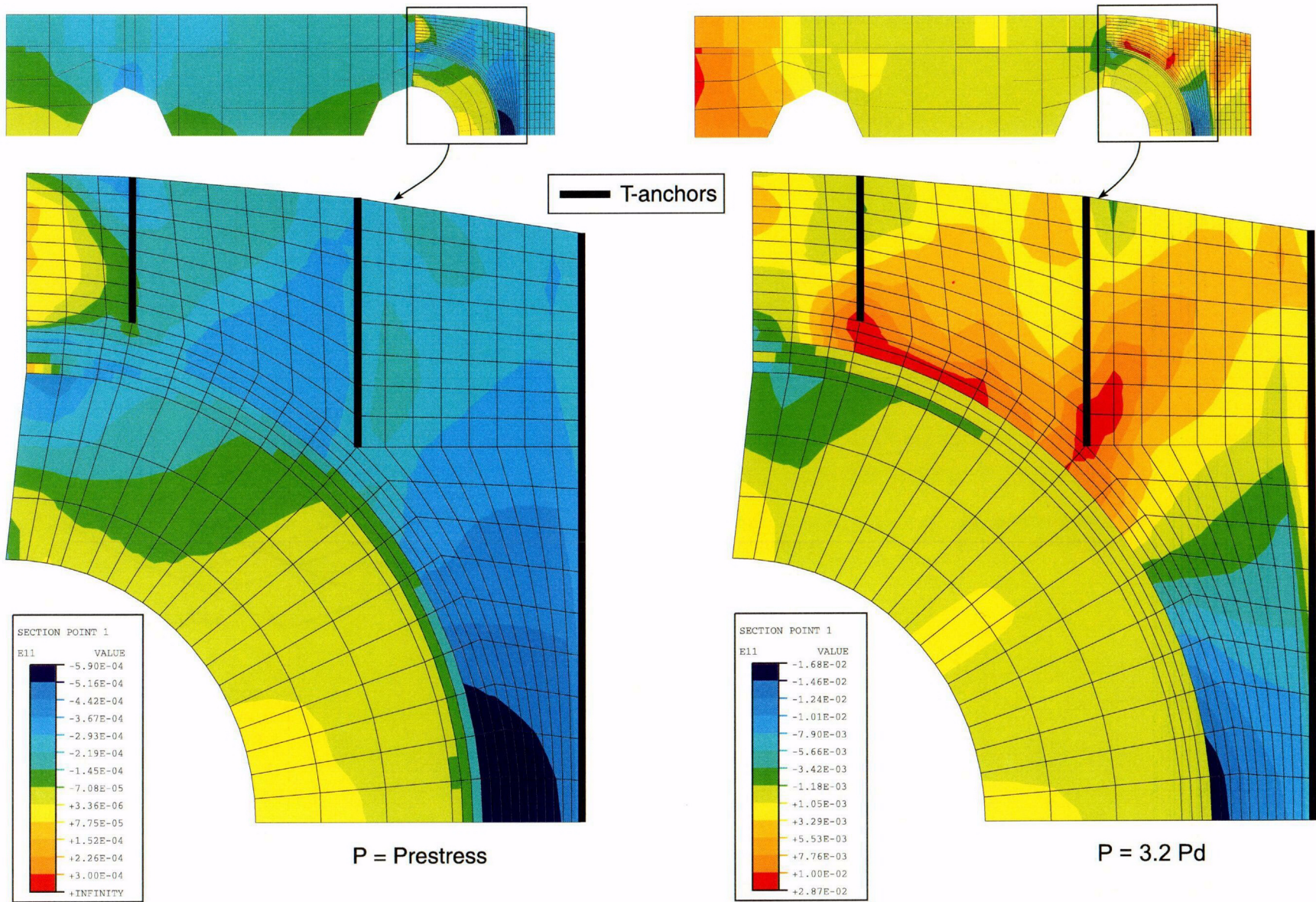


Figure 7-5. Liner Contour Hoop Strain Plots from Pretest M/S Model Analysis

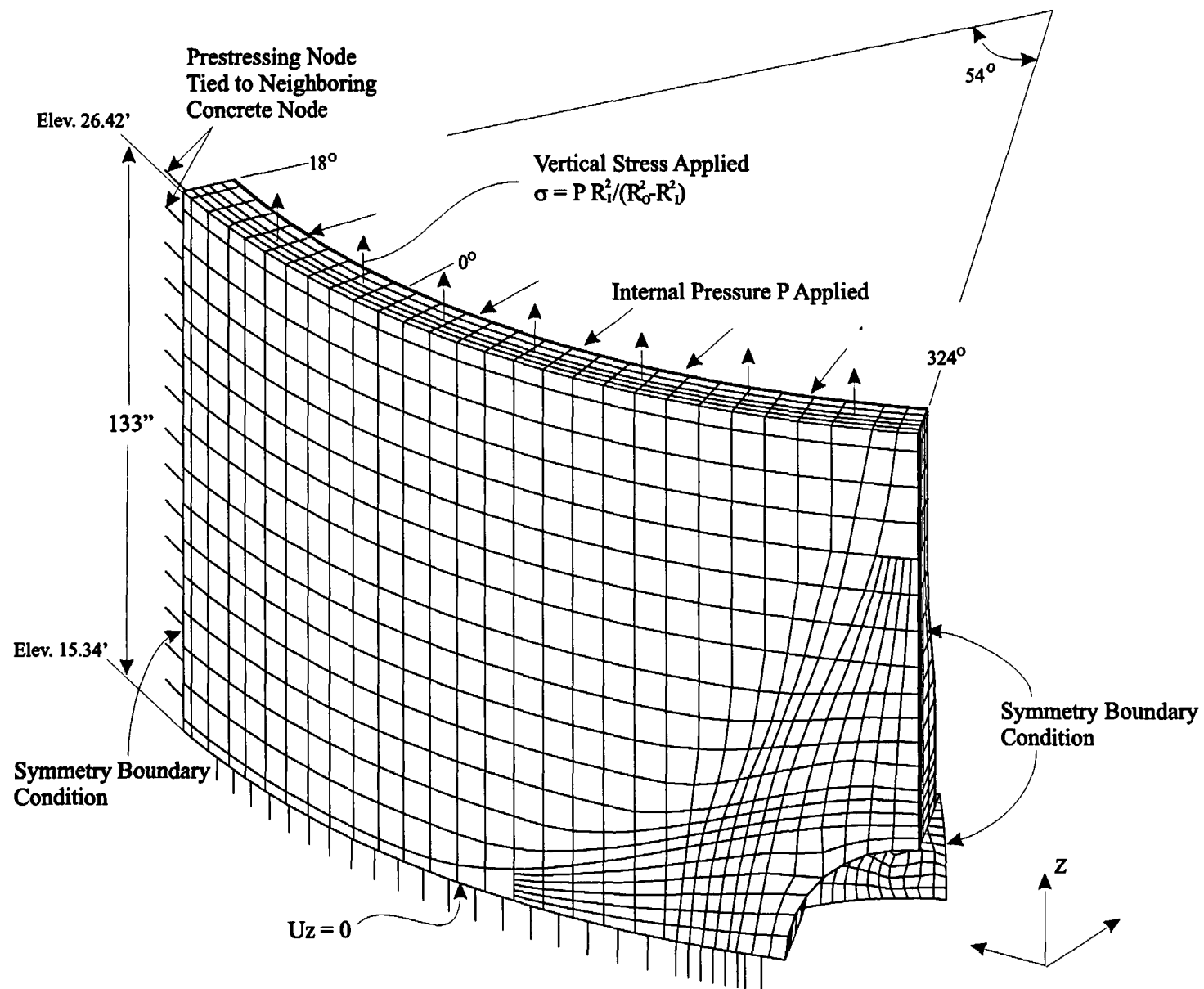
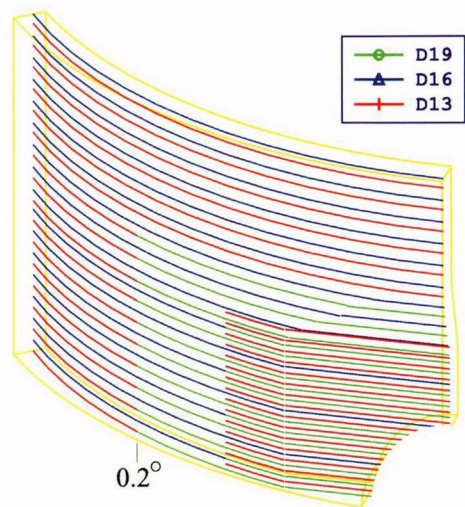
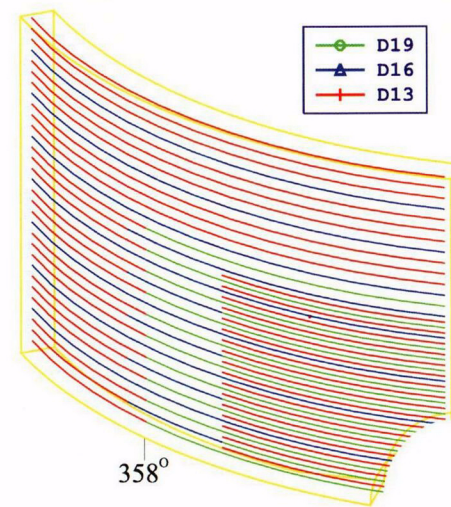


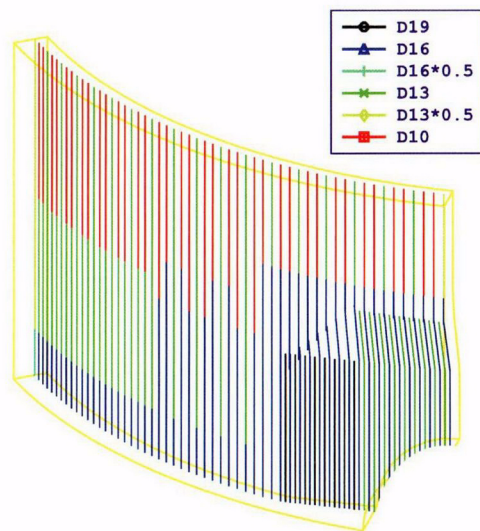
Figure 7-6. Finite Element Mesh and Boundary Conditions for 3D E/H Model



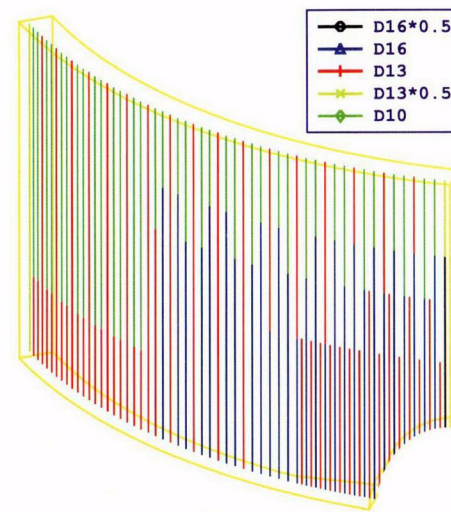
Inside Hoop Rebars



Outside Hoop Rebars



Inside Vertical Rebars



Outside Vertical Rebars

Figure 7-7. Schematic of Hoop and Vertical Rebars in E/H Region

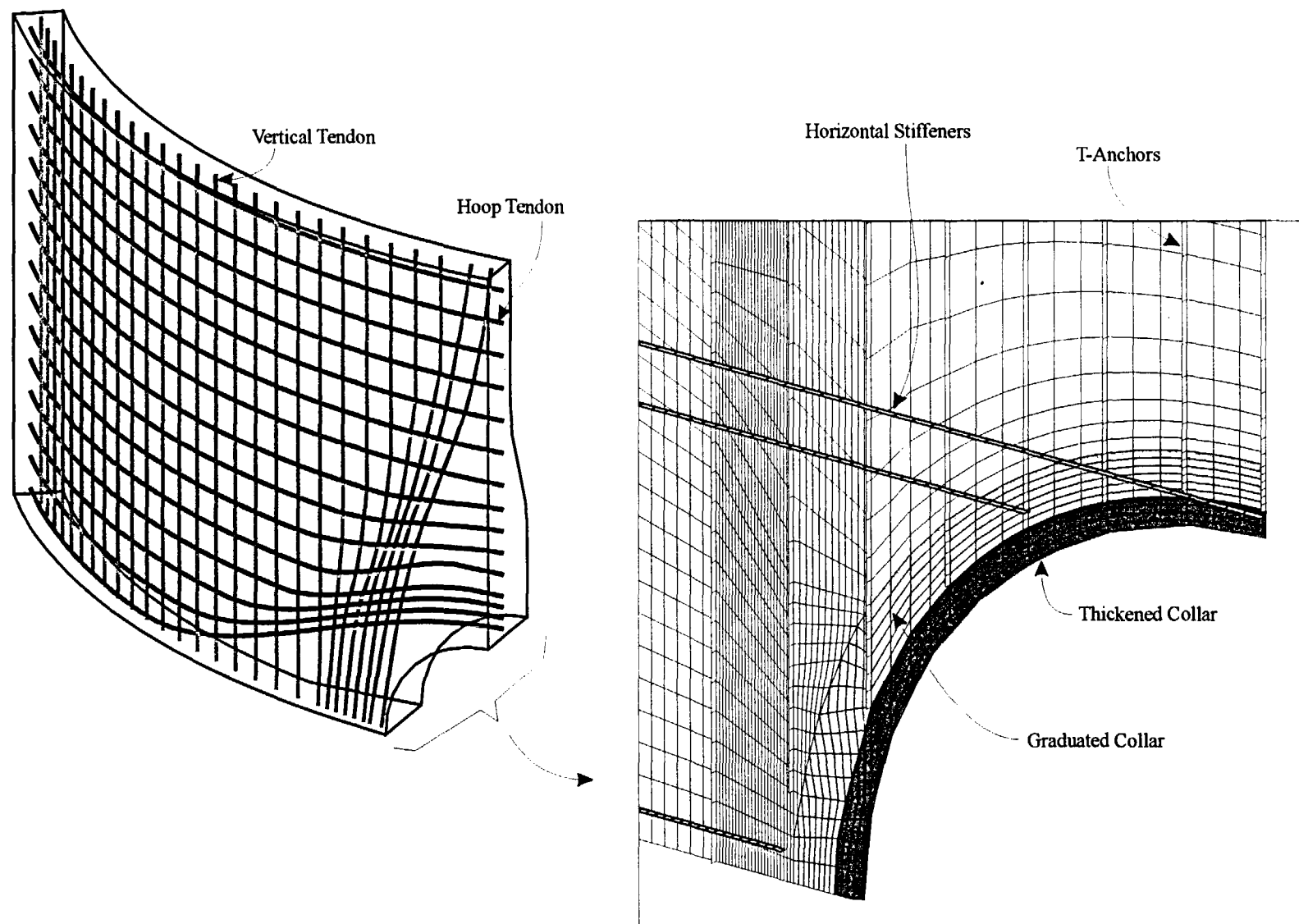


Figure 7-8. E/H Finite Element Model Including Tendons, Liner, Anchors, and Stiffeners

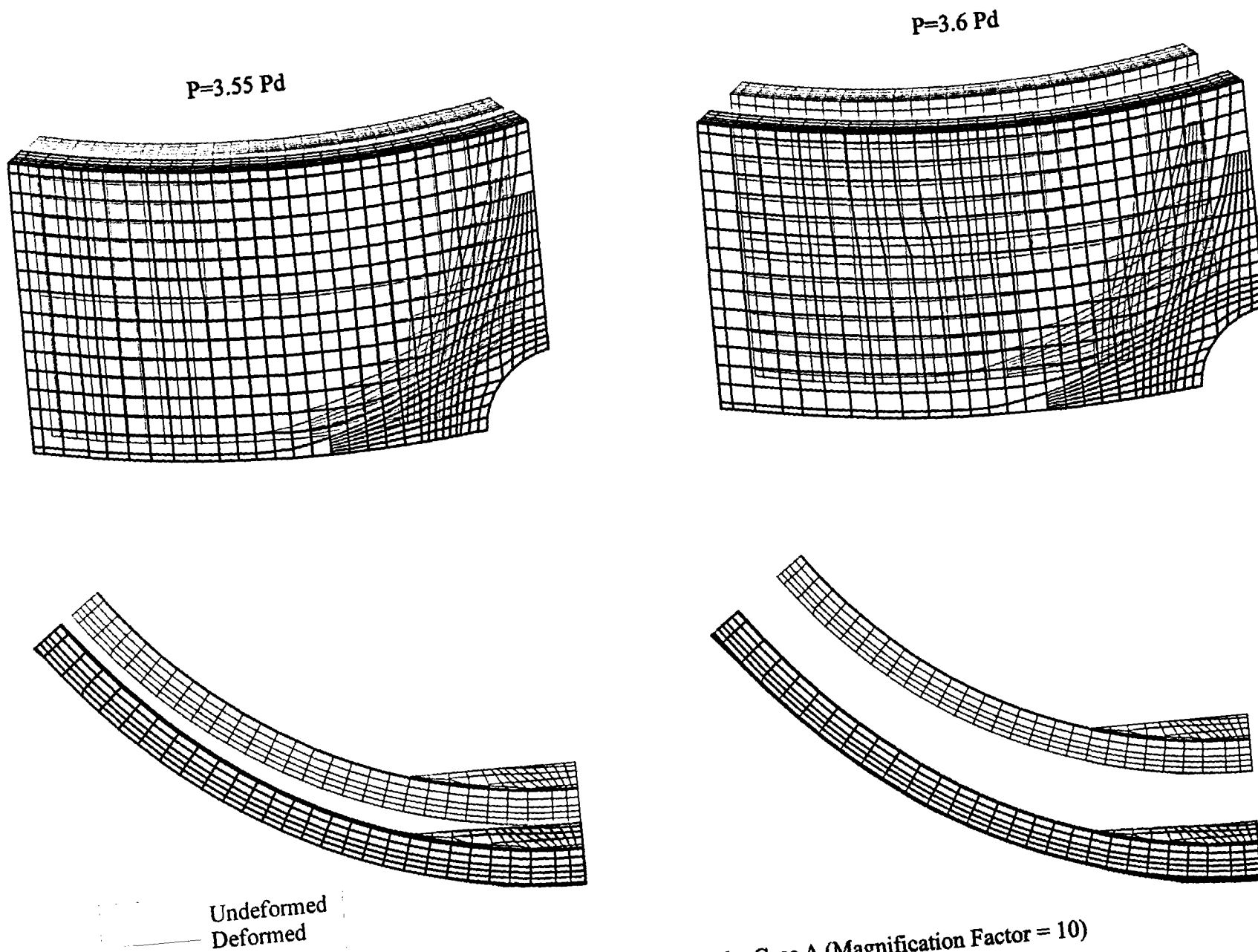


Figure 7-9. Deformed Shape of E/H Mode, Case A (Magnification Factor = 10)

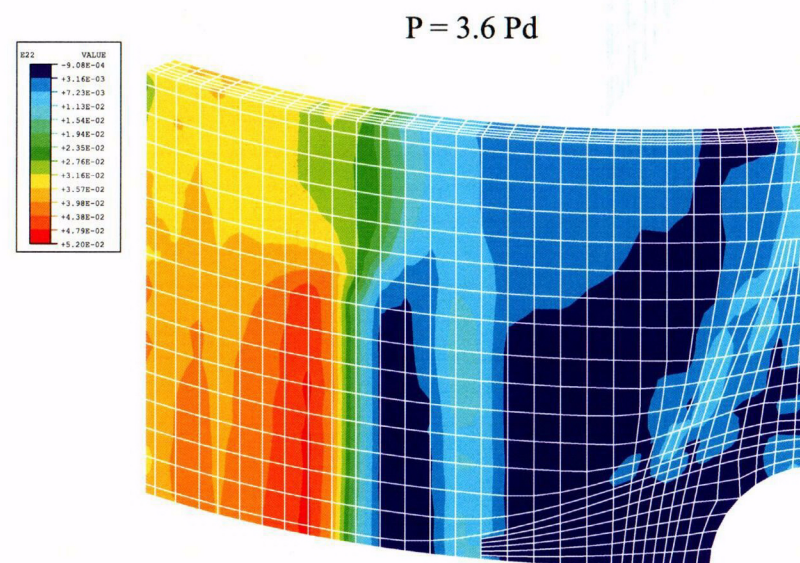
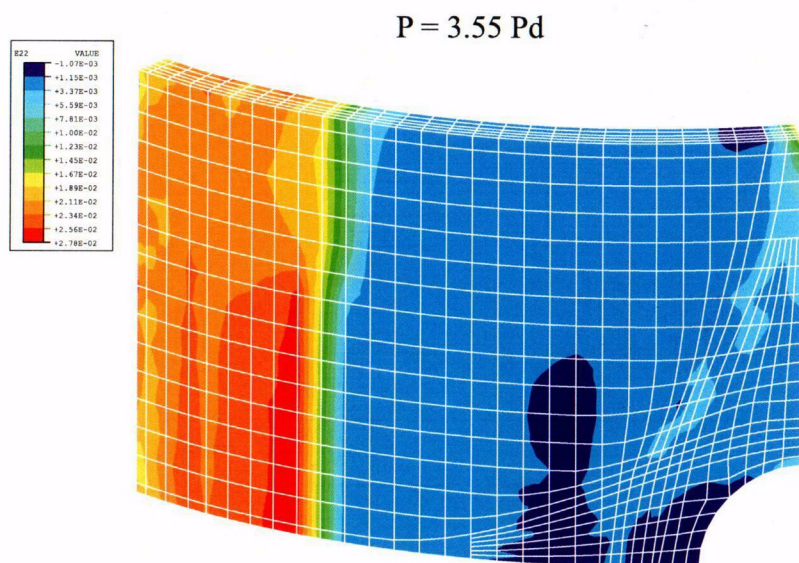
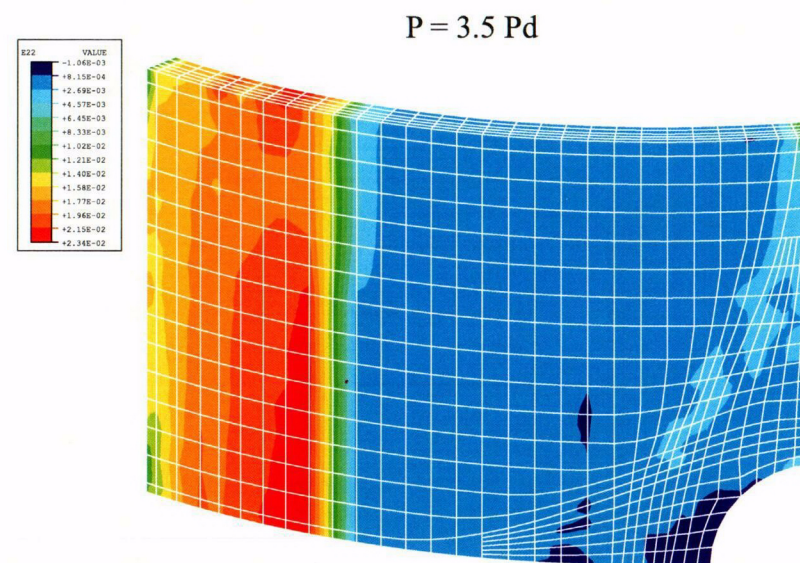
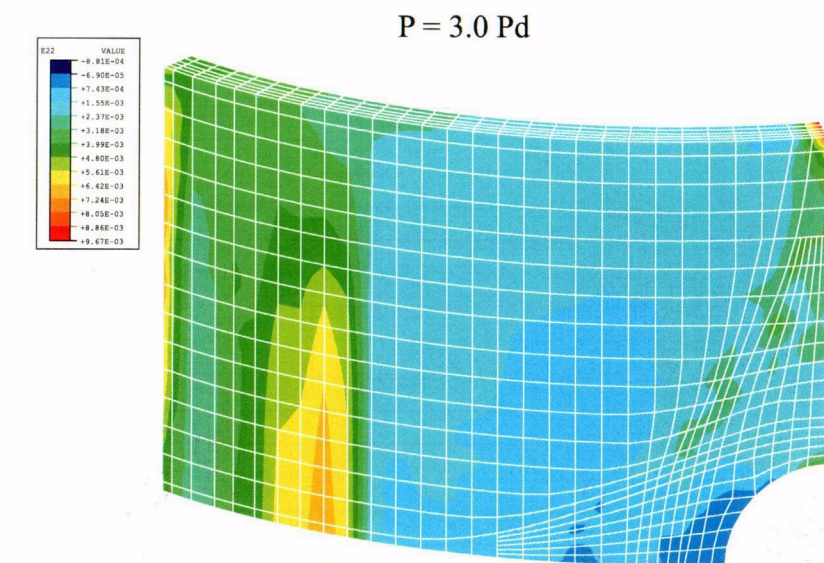
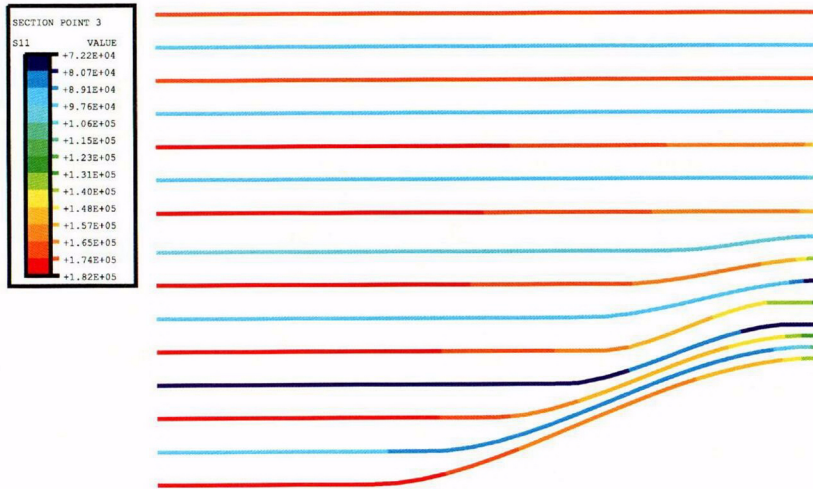
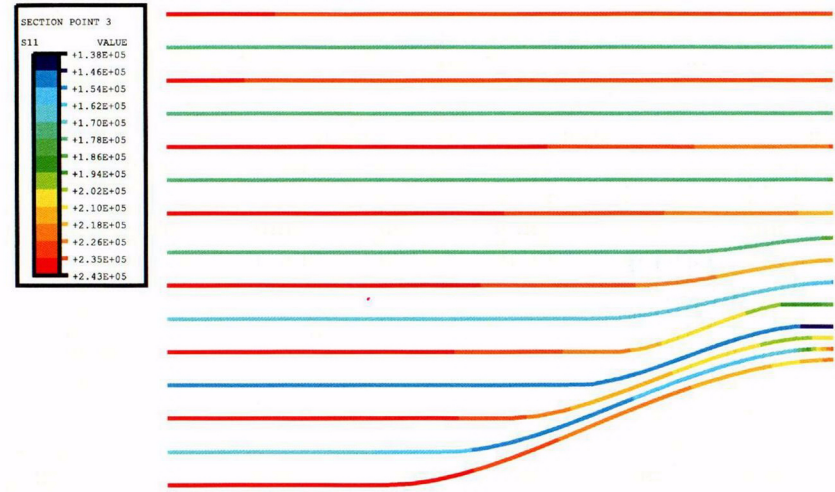


Figure 7-10. Concrete Hoop Strain Contours, Posttest Analysis Case A

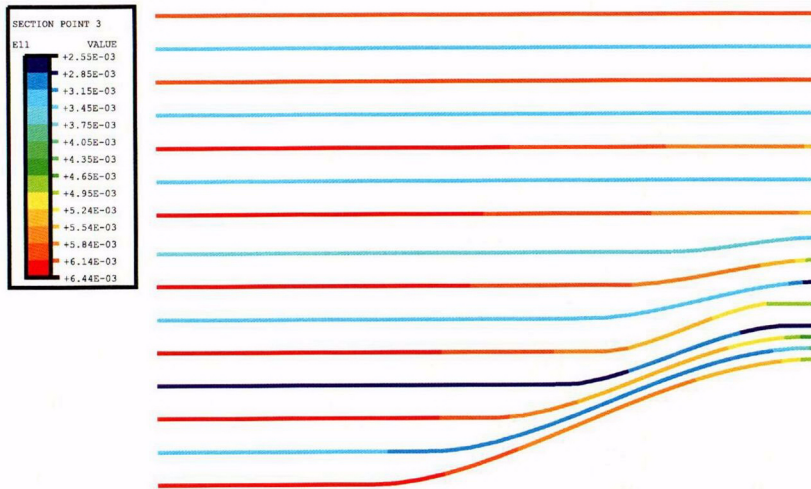
Stress, Prestress



Stress, P = 3.0 Pd



Strain, Prestress



Strain, P = 3.0 Pd

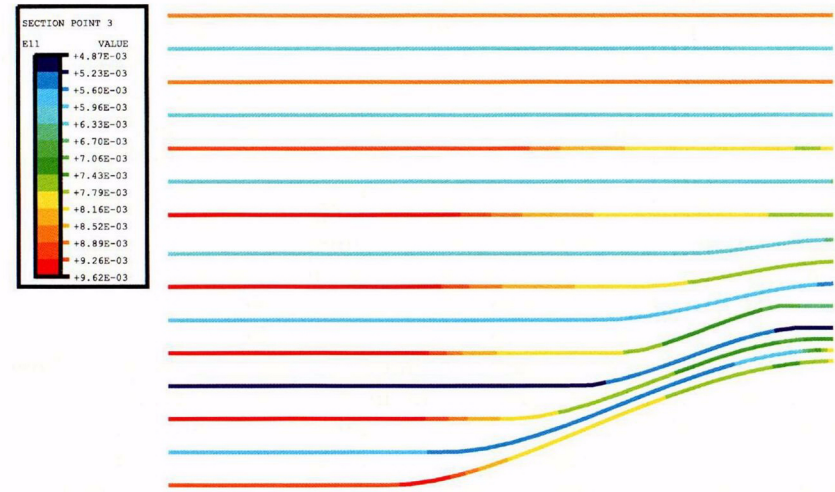
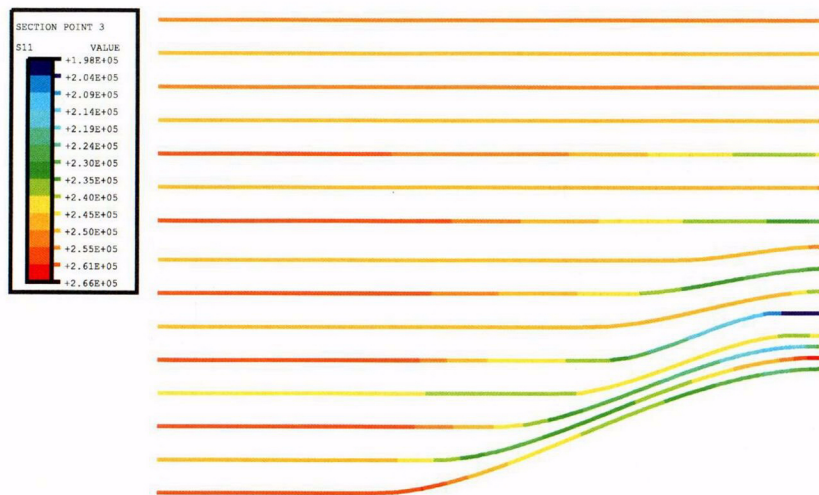
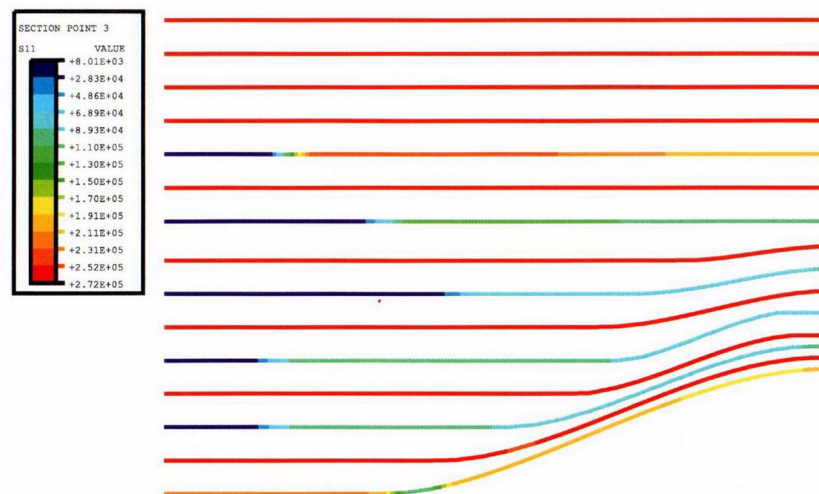


Figure 7-11. Hoop Tendon Stresses and Strains, Posttest Analysis Case A, at Prestress and at 3.0 Pd
(Stresses in psi; multiply by 0.00690 for MPa)

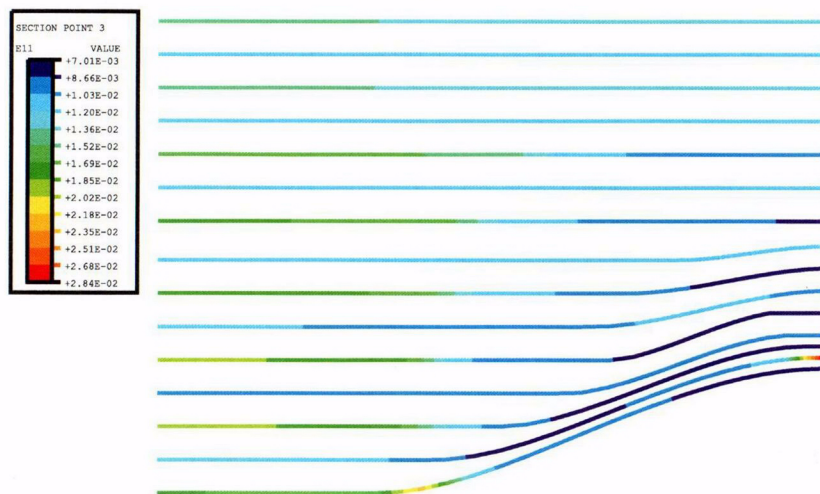
Stress, P = 3.5 Pd



Stress, P = 3.6 Pd



Strain, P = 3.5 Pd



Strain, P = 3.6 Pd

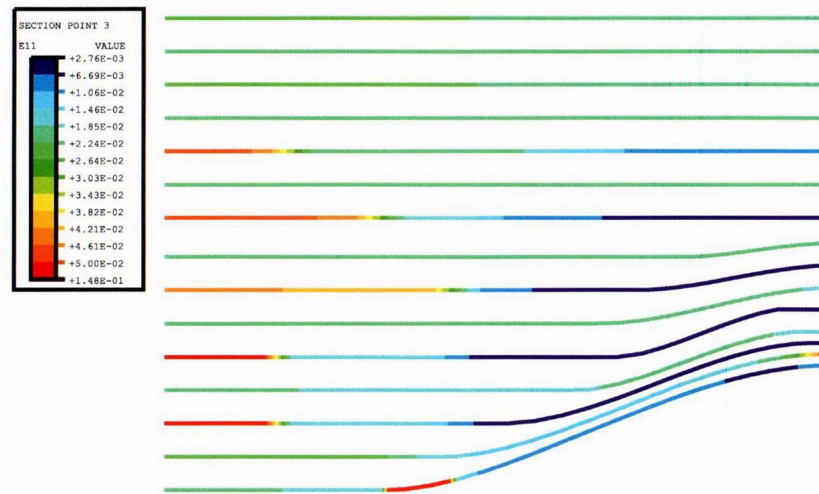
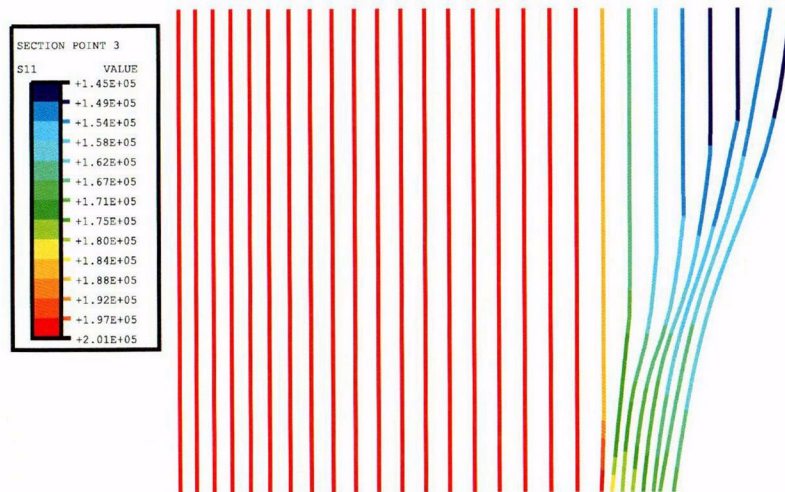
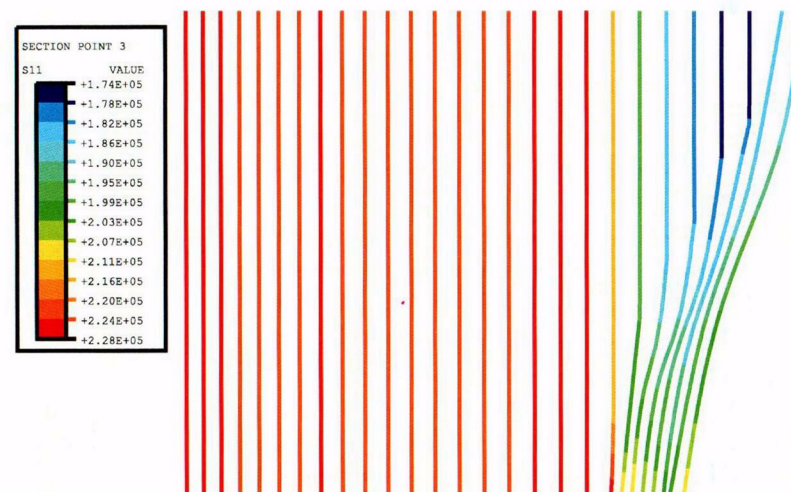


Figure 7-12. Hoop Tendon Stresses and Strains, Posttest Analysis Case A, at 3.5 Pd and 3.6 Pd
(Stresses in psi; multiply by 0.00690 for MPa)

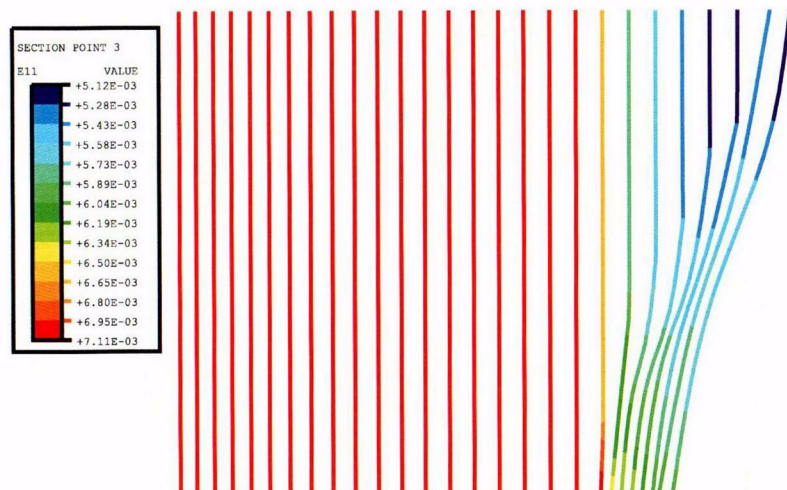
Stress, Prestress



Stress, P = 3.6 Pd



Strain, Prestress



Strain, P = 3.6 Pd

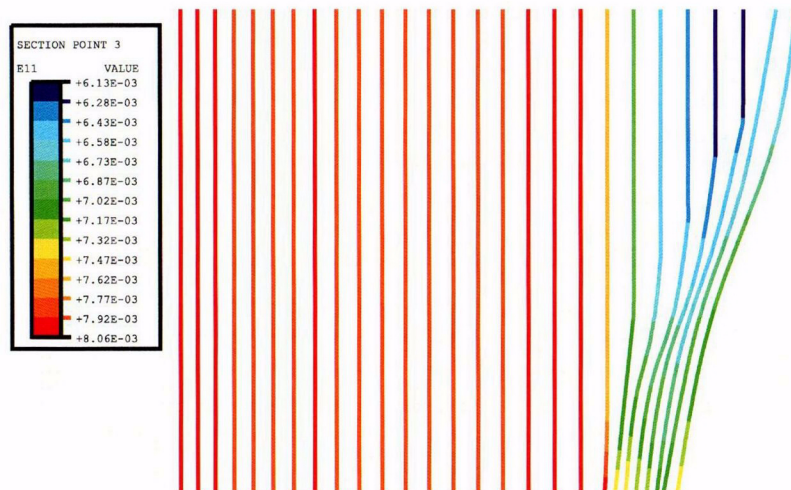


Figure 7-13. Vertical Tendon Stresses and Strains, Posttest Analysis Case A, at Prestress and 3.6 Pd
(Stresses in psi; Multiply by 0.00690 for MPa)

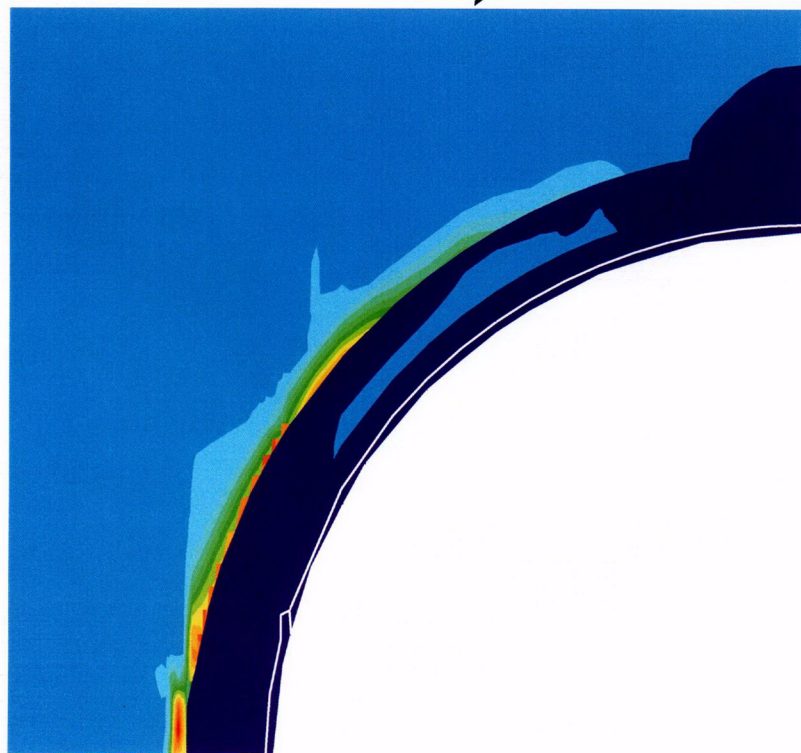
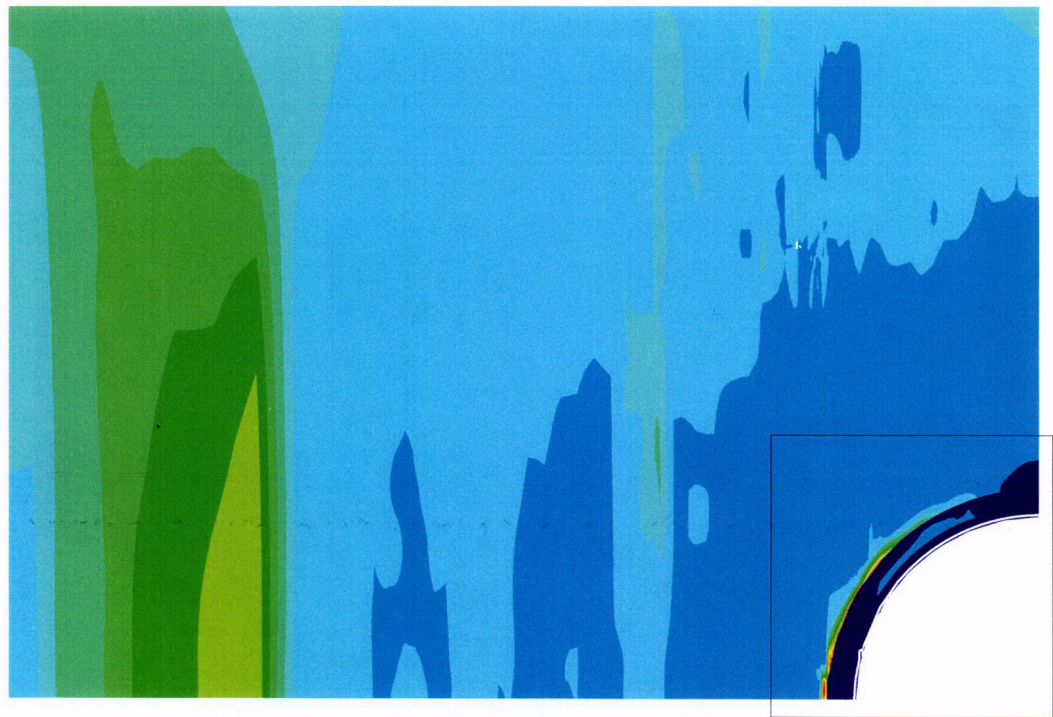
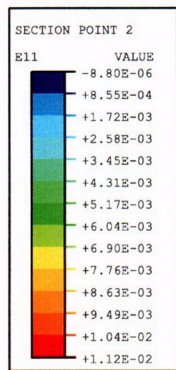


Figure 7-14. Liner Hoop Strains, Posttest Analysis Case A, at 3.0 Pd

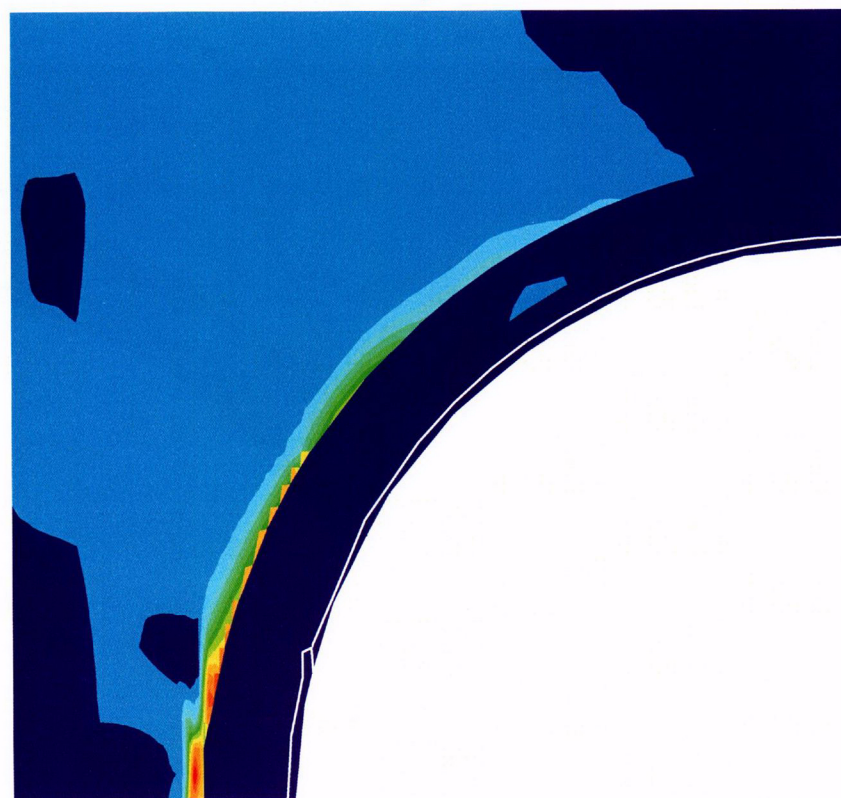
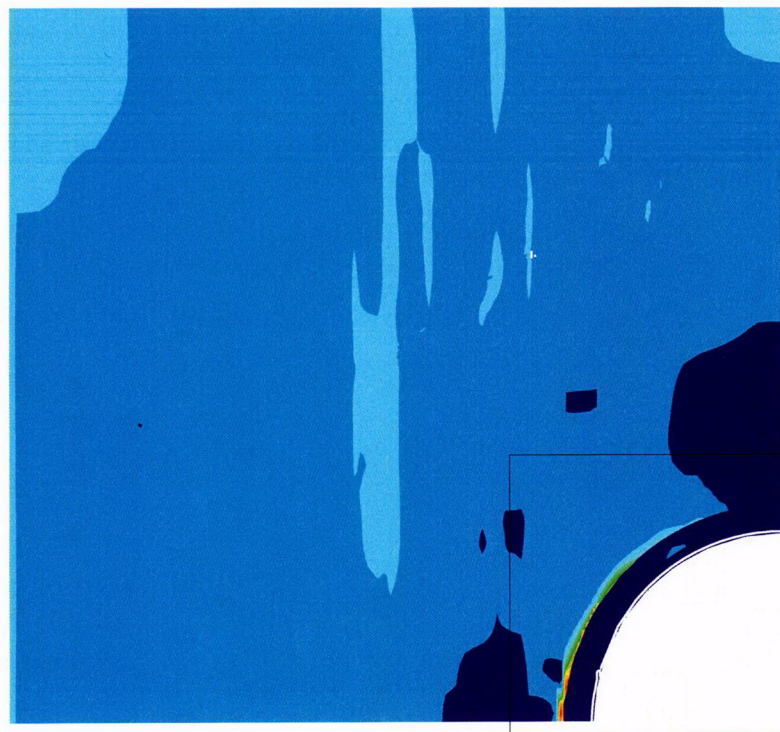
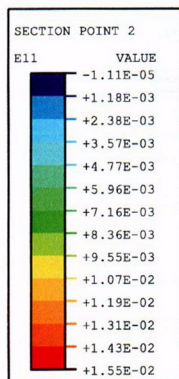
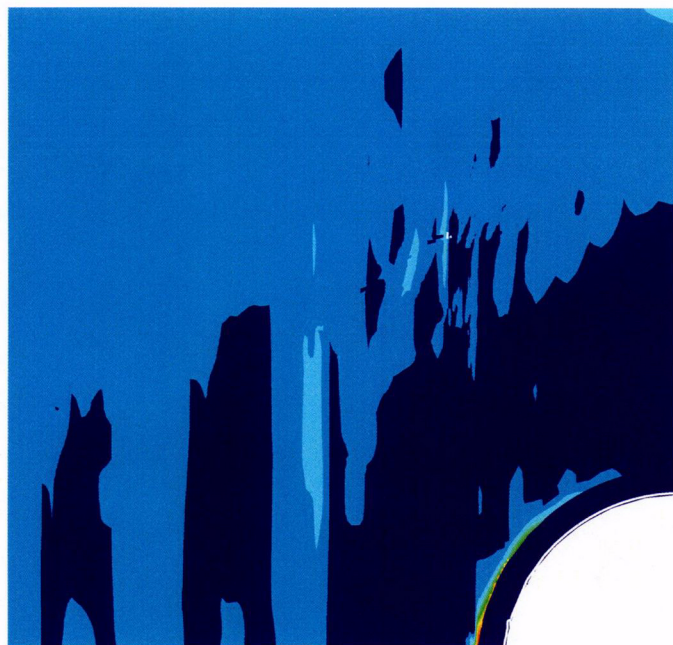
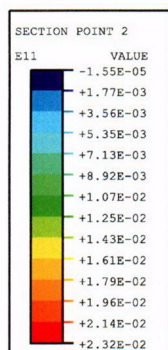


Figure 7-15. Liner Hoop Strains, Posttest Analysis Case A, at 3.2 Pd

P = 3.5 Pd



P = 3.6 Pd

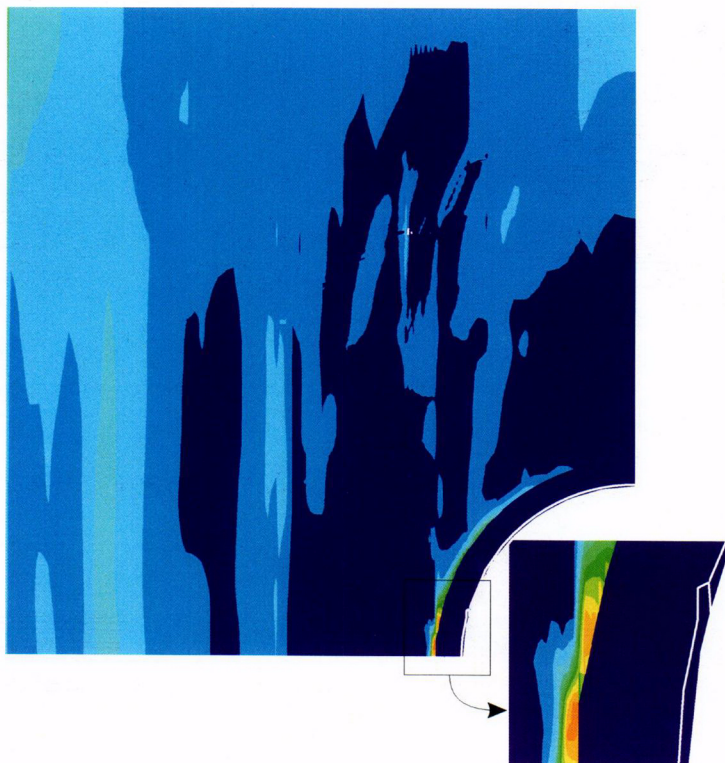
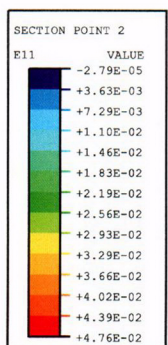


Figure 7-16. Liner Hoop Strains, Posttest Analysis Case A, at 3.5 Pd and 3.6 Pd

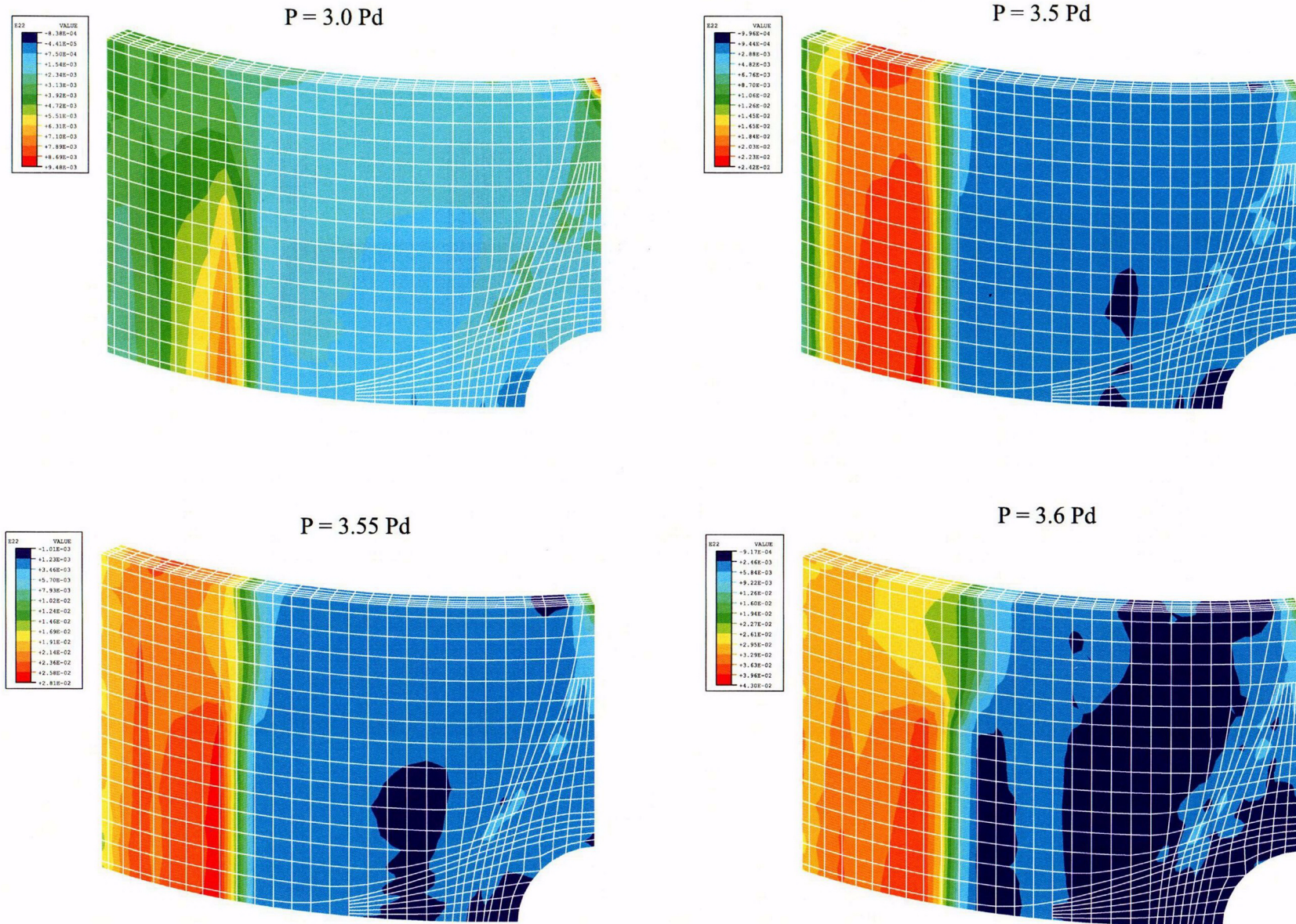


Figure 7-17. Concrete Hoop Strain Contours, Posttest Analysis Case B

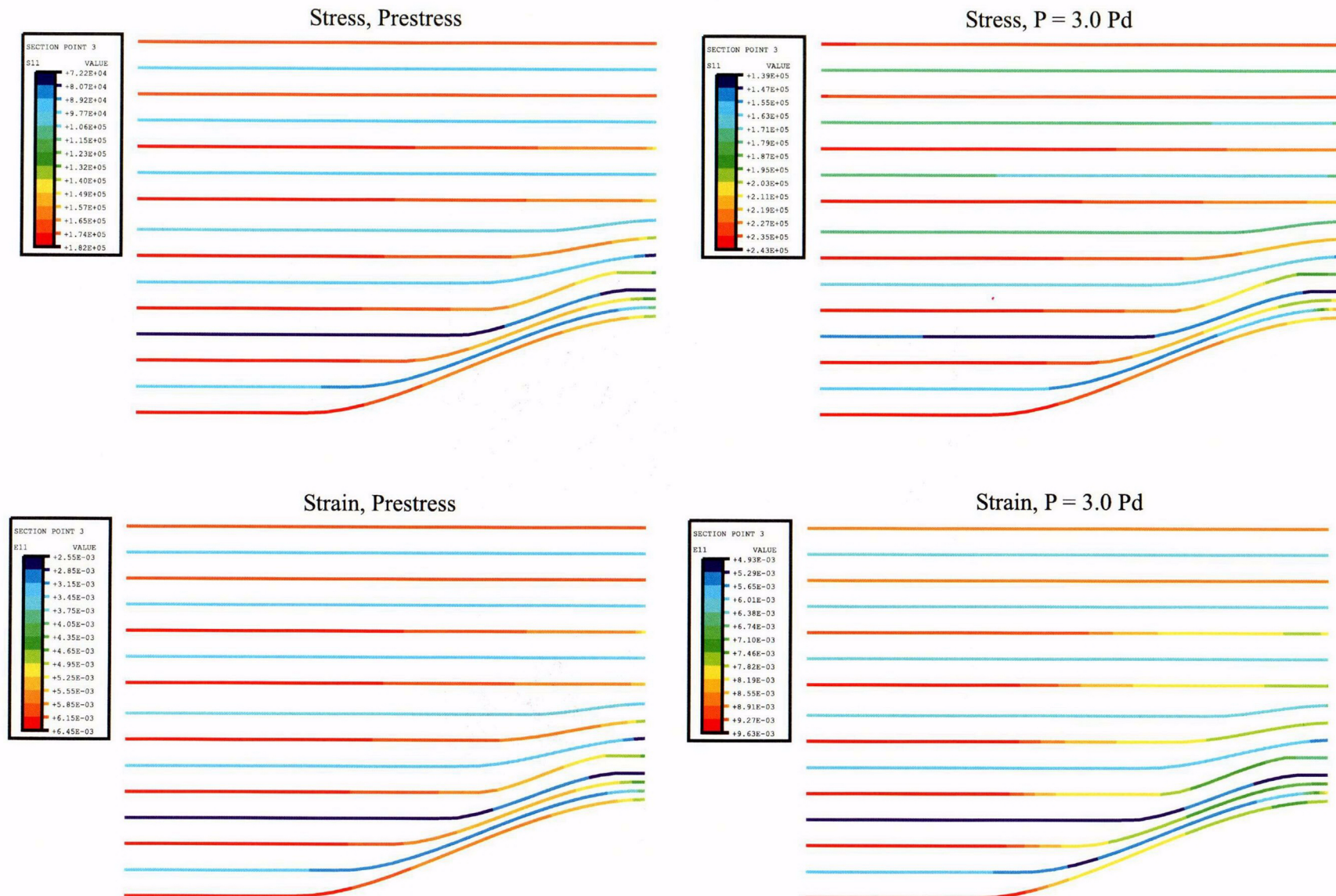


Figure 7-18. Hoop Tendon Stresses and Strains, Posttest Analysis Case B, at Prestress and 3.0 Pd
(Stresses in psi; Multiply by 0.00690 for MPa)

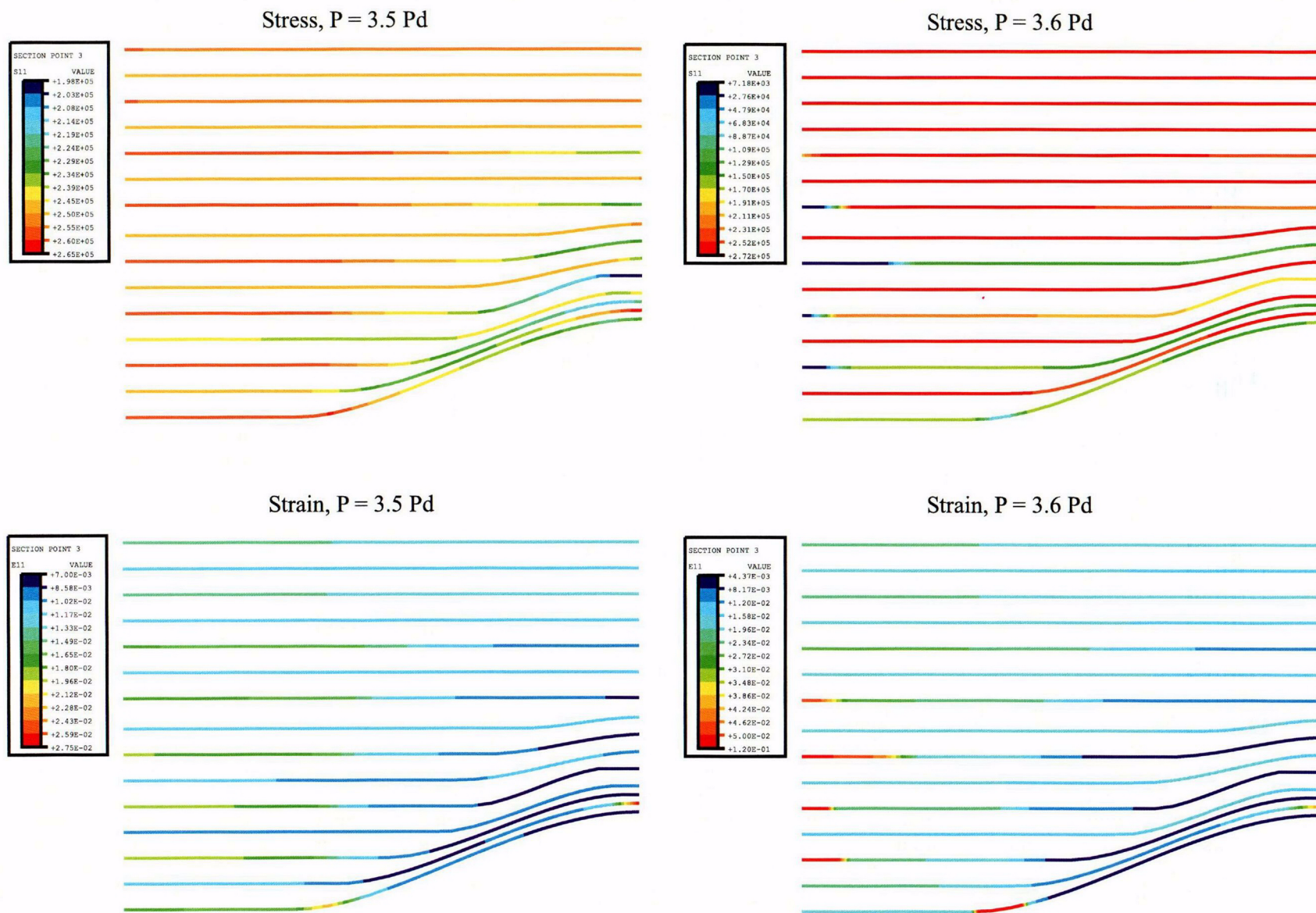


Figure 7-19. Hoop Tendon Stresses and Strains, Posttest Analysis Case B, at 3.5 Pd and 3.6 Pd
(Stresses in psi; Multiply by 0.00690 for MPa)

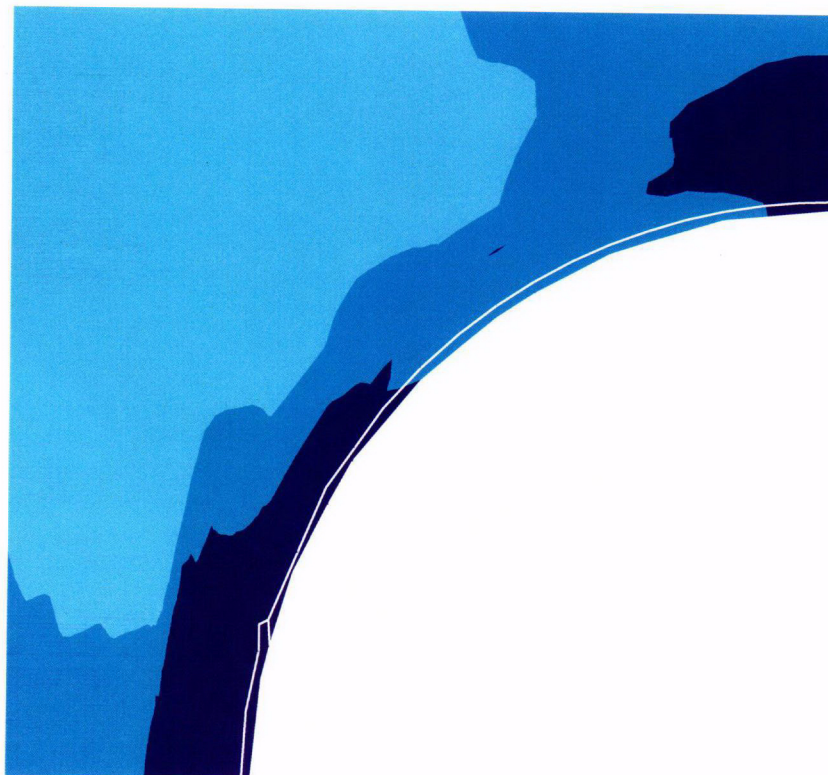
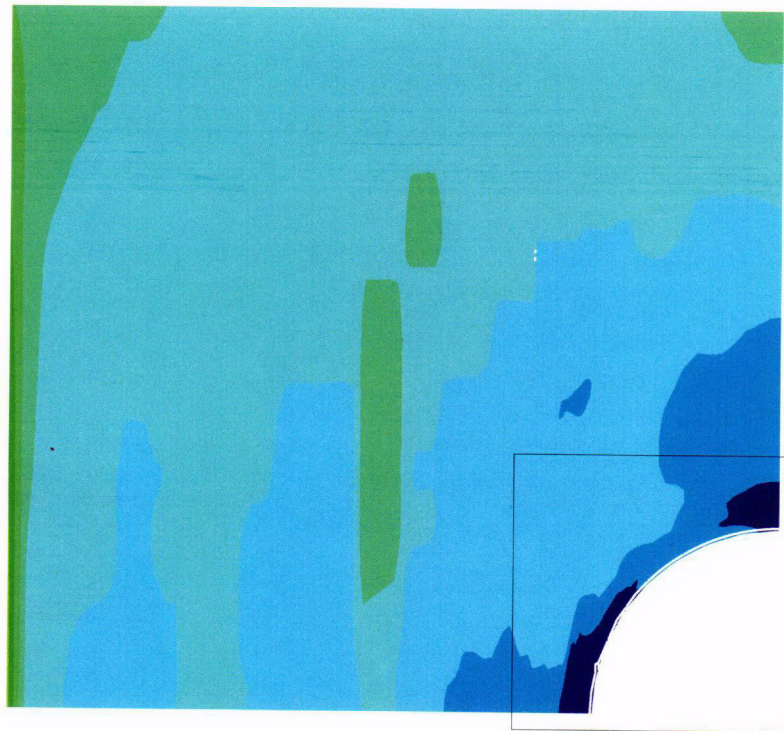
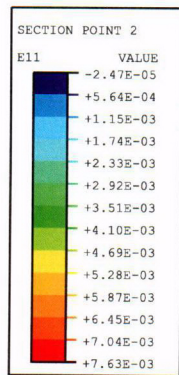


Figure 7-20. Liner Hoop Strains, Posttest Analysis Case B, at 3.0 Pd

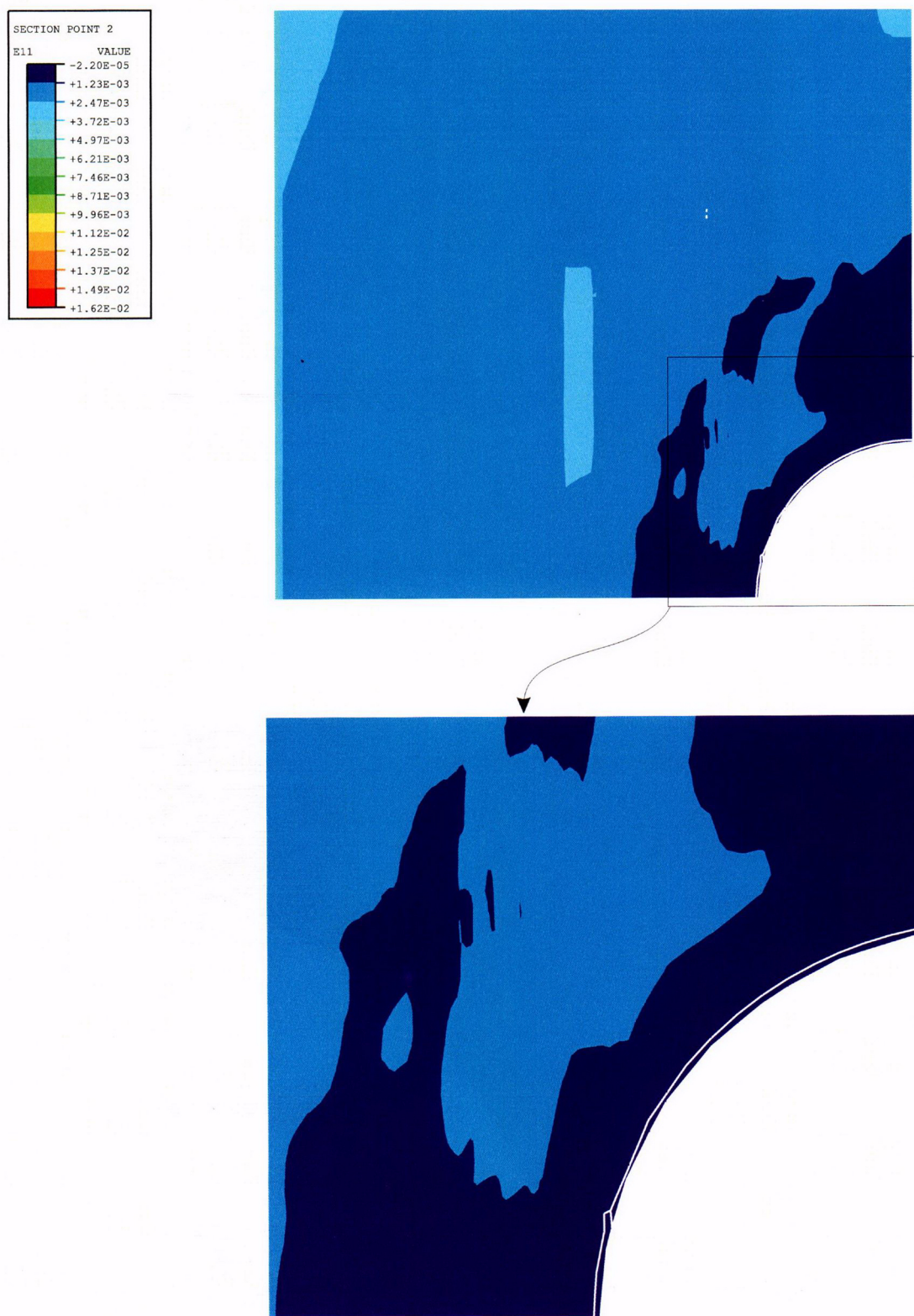


Figure 7-21. Liner Hoop Strains, Posttest Analysis Case B, at 3.2 Pd