LOAD REDISTRIBUTION & CORE FAILURE SCENARIO

1. Plane impact destroys columns 503, 504, 505, & 506.
2. Loads from columns 503, 504, 505 & 506 redistributed to Columns 502, 507, 603, & 604, 605, & 606.
3. Columns 603 & 606 support over 250% yield strength.
4. Heat weakens and then fails columns 603 & 606.
5. After columns 603 & 606 buckle loads redistributed to columns 602, 607, 703, 704, 705, & 706.
6. OOS floors on north side supported by 501, 502, 507 & 508 with hat truss T1 supporting columns 503, 504, & 506 on floors above impact zone.
7. Columns 703, 704, 705, & 706 overloded and buckle.
8. Hat trusses T2 & T6 buckle in center under antenna.
9. Antenna loses support becomes unstable w/ less support west side and fails westward.
10. Column failures rapidly propagate southward to rows 700, 800 & 900.
11. Hat trusses T3 and T7 buckle at center and fail.
12. All core loads are transferred to remaining hat trusses T1, T4, T5, & T8.
13. Columns which remain in rows 500 and 1000 are overwhelmed and buckle carrying all floor loads above from hat trusses T1, T4, T5, & T8.
14. Hat trusses T1, T4, T5, & T8 cause buckling at the impact zone.
15. Entire upper section descends downward.

PROPORTIONAL AXIAL STRENGTH OF CORE COLUMNS IN ROW 500

1. Plane impact destroys columns 503, 504, 505, & 506.
2. Loads from columns 503, 504, 505 & 506 redistributed to Columns 502, 507, 603, & 604, 605, & 606.
3. Columns 603 & 606 support over 250% yield strength.
4. Heat weakens and then fails columns 603 & 606.
5. After columns 603 & 606 buckle loads redistributed to columns 602, 607, 703, 704, 705, & 706.
6. OOS floors on north side supported by 501, 502, 507 & 508 with hat truss T1 supporting columns 503, 504, & 506 on floors above impact zone.
7. Columns 703, 704, 705, & 706 overloded and buckle.
8. Hat trusses T2 & T6 buckle in center under antenna.
9. Antenna loses support becomes unstable w/ less support west side and fails westward.
10. Column failures rapidly propagate southward to rows 700, 800 & 900.
11. Hat trusses T3 and T7 buckle at center and fail.
12. All core loads are transferred to remaining hat trusses T1, T4, T5, & T8.
13. Columns which remain in rows 500 and 1000 are overwhelmed and buckle carrying all floor loads above from hat trusses T1, T4, T5, & T8.
14. Hat trusses T1, T4, T5, & T8 cause buckling at the impact zone.
15. Entire upper section descends downward.