BUILDING DATA

Calif. Polytechnic State University Building 40, Engineering South-
Original Construction 1954

Construction Type: II-B [(E) Condition per current code]
      Non Combustible Exterior Walls: (E) Concrete Complies
      Non-Combustible Exterior Walls [Per Table 601]: (E) Concrete Complies
      Interior Walls and Partitions- Non-combustible (Sec. 602.2); Non-Rated (Table 601)
      (E) Metal Stud Interior Non-Bearing Walls

Occupancy Type: B, F-1 and S-2 Occ. (Per CBC Sec. 304.1) nonseparated

Occupancy Separations: None

Partially sprinklered (F-2 area) considered non-Sprinklered

No. of Stories: 1, with mezzanine – OK per Table 503, 2 stories Allowed

(E) Building Height- 26.5'

Actual Building Area-

B Occ: 6,828 sq. ft.
F1 Occ.: 9,199 sq. ft. – New Addt'n.- 93.5 sq. ft. – Total- 9,292.5 sq. ft.
S-2 Occ.: 1,814 sq. ft.

Total: 17,934.5 sq. ft.

Allowable Area Calculation – Nonseparated per 508.3

A Occ. Base Allowable-   23,000 sq. ft. - **OK**
S-2 Occ. Base Allowable- 26,000 sq. ft.- **OK**
F-1 Occ. Base Allowable- 15,500 sq. ft.- See Area Calc. below

$Aa = [At+[At \times lf] + [At \times ls]\}$ (Per 506.1)
$Lf = [F/P-0.25]*W/30$ (Per 506.2)

P = 677 ft. (Total Perimeter)
F = 590 sq. ft. (yards > 20')

Weighted Average W (per Sec. 506.2.1)

$W = (L1 \times w1 + L2 \times w2 + L3 \times w3.....) / F$

One wall at 18', one wall greater than 20' but less than 30' (See Site Plan); all other areas greater than 30' separation.

$W = (103' \times 20' + 487' \times 30') / 590'$

$W = (2060 + 14610) / 590$

$W = 16670/590 = 28.25$

$I_f = [F/P - 0.25]*W/30$

$I_f = [590/677 - 0.25]* 28.25/30$

$I_f = .58$

$I_s = 0$ (non sprkld)

$A_t = 15,500$ sq. ft. (Per Table 503, F-1)

$A_a = \{15,500 + [15,500 \times .58] + [19,000 \times 0]\}$

$A_a = 15,500 + 8,990 = 24,490$ sq. ft. per Floor

Total Area- 17,934.5 sq. ft. < 24,490 sq. ft. Allowable, **OK**

DSA number - none

Fire Sprinkler Info-
Power Plant side, east side wing, F-1 area
Viking Pendants, Alpha Fire

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