BUILDING DATA

Calif. Polytechnic State University Building 033, Fisher Science

Original Construction 1977

Occupancy Type: B Occ. with A-3 (less than 10%), non-sprinklered

Construction Type: II-B [(E) Condition per current code]
- Primary Structural Frame Non Combustible—Concrete walls, frame, floors, roof.
- Roof Framing Non Combustible—Concrete
- Non Combustible Exterior Bearing Walls: (E) Concrete Complies
- Interior Walls and Partitions, non combustible—metal stud walls comply.
- Fire separation distance is greater than 30’ at North, East and South, NO LIMIT on exterior openings per table 705.8
- Portion of West wall- 27’ to Building 53; 70% openings allowed, UP, NS
  Wall area-798 sf per floor; 70% = 558 sf allowed. 42 sf of openings 1st Flr.- OK
  Wall area-798 sf per floor; 70% = 558 sf allowed. 128 sf of openings 2nd Flr.- OK
  Wall area-798 sf per floor; 70% = 558 sf allowed. 48 sf of openings 3rd Flr.- OK
- Portion of West wall- 27’ to Building 47; 70% openings allowed, UP, NS
  Wall area- 574 sf per floor; 70% = 402 sf allowed. 52 sf of openings- OK
- Portion of West wall- 22’ to Building 47; 45% openings allowed, UP, NS
  Wall area- 140 sf per floor; 45% = 63 sf allowed. 15 sf of openings- OK

Occupancy Separations- none

NOTE: A 2 hr. fire separation wall is required between Science North and Fisher Science at the First Floor/Basement Level. The existing concrete walls comply, but the door should be replaced with a 1-1/2 hr. pair of doors and frame.

No. of Stories: 3 – OK per Table 503, 3 stories Allowed

(E) Building Height- 42’, 55’ allowed

Actual Building Area-
- (Basement: 6,780 sq. ft.) not included in overall
- First Floor: 25,247 sq. ft.
- Second Floor: 24,969 sq. ft.
- Third Floor: 19,704 sq. ft.

Total: 76,700 sq. ft. (Includes covered areas)

Allowable Area Calculation

\[ A_a = [At + (At \times Lf)] \] (Per 506.1)

\[ Lf = \left[ \frac{F}{P-0.25} \right]^{*} W/30 \] (Per 506.2)

\[ P = 1330 \text{ ft. (Total Perimeter)} \]
F = 1150 (greater than 30\')

W = 30: greater than 30' separation.

If = \([F/P – 0.25]*W/30\]

If = \([1150/1330 – 0.25]*1\]

If = .61

Is = 0 (non sprkld)

At = 23,000 sq. ft. (Per Table 503)

Aa = \(23,000 + [23,000 \times .61] + [23,000 \times 0]\)

Aa = 23,000 + 14,137 = 37,137 sq. ft. per Floor

Total (E) Area, First floor – 25,247 sq. ft. **OK**
Total (E) Area, Second floor – 24,969 sq. ft. **OK**
Total (E) Area, Third floor – 19,704 sq. ft. **OK**

Total allowable area, building \((x3, per 506.4.1.2)\) - 111,411 sq. ft. **OK**

**DSA Info**
No DSA number.

**Fire Sprinkler Info**
Basement only. Service Room 158. Star SSP-1 pendant only.

**SFM FILE #** - 18-40-03-0001-073