

Preliminary Code Analysis DAC Development Subdivision Lot 1

PRELIMINARY APPROX. AREA CALCULATIONS

IIIB Firetreated Wood Exterior R-2 Use - Max Stories = 5
Max Height = 75' Sprinkled Building

Table 506.2 R2/SM 48,000 SF NS = 16,000
506.2.3 Use Equation 5-2
$$A_a = [A_t + (NS \times I_f)] \times S_a$$

Fire Area 1 $[48,000 + (16,000 \times 0.61)] \times 4 = 231,040$ SF Allowable
135,010 SF Actual

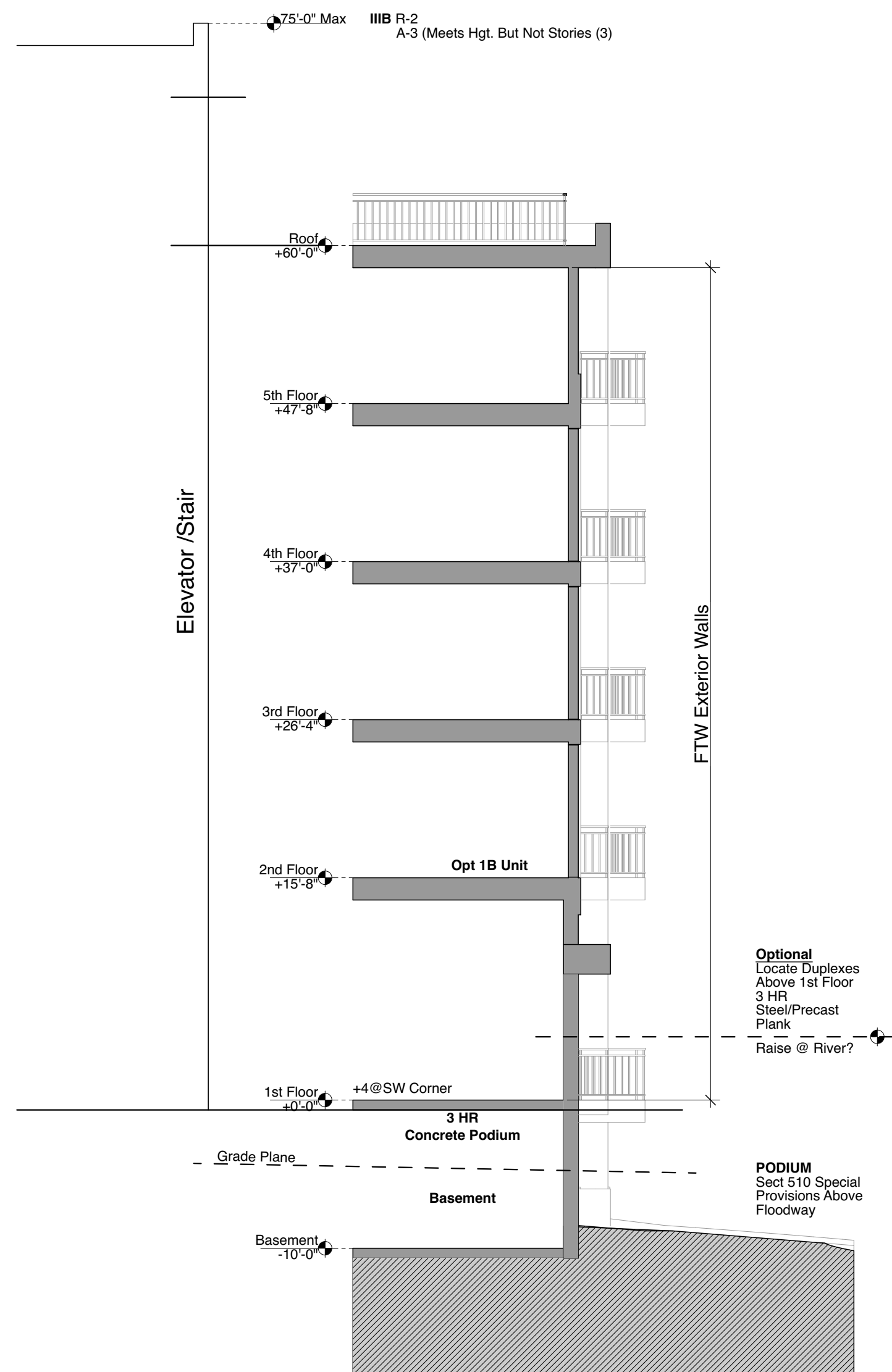
Fire Area 1 $150+190+530 = 530/870 = 0.61$ Perimeter

Fire Area 2 $[48,000 + (16,000 \times 0.48)] \times 4 = 222,720$ SF Allowable
 102,370 SF Actual
 $\frac{380+208+250+138}{380+68} = p = \frac{210}{471} = 0.48$ Perimeter

Check Total 998/1841 = p = 0.54
 FA1 + FA2 [48,000 + (16,000 x 0.54)] x 4 = 226,694 SF Allowable
 237,380 SF Actual

Eliminate Firewall if Interior Court (60' Wide) Allowed as Open

Note: Areas based on Previous Perimeter Which is More Conservative

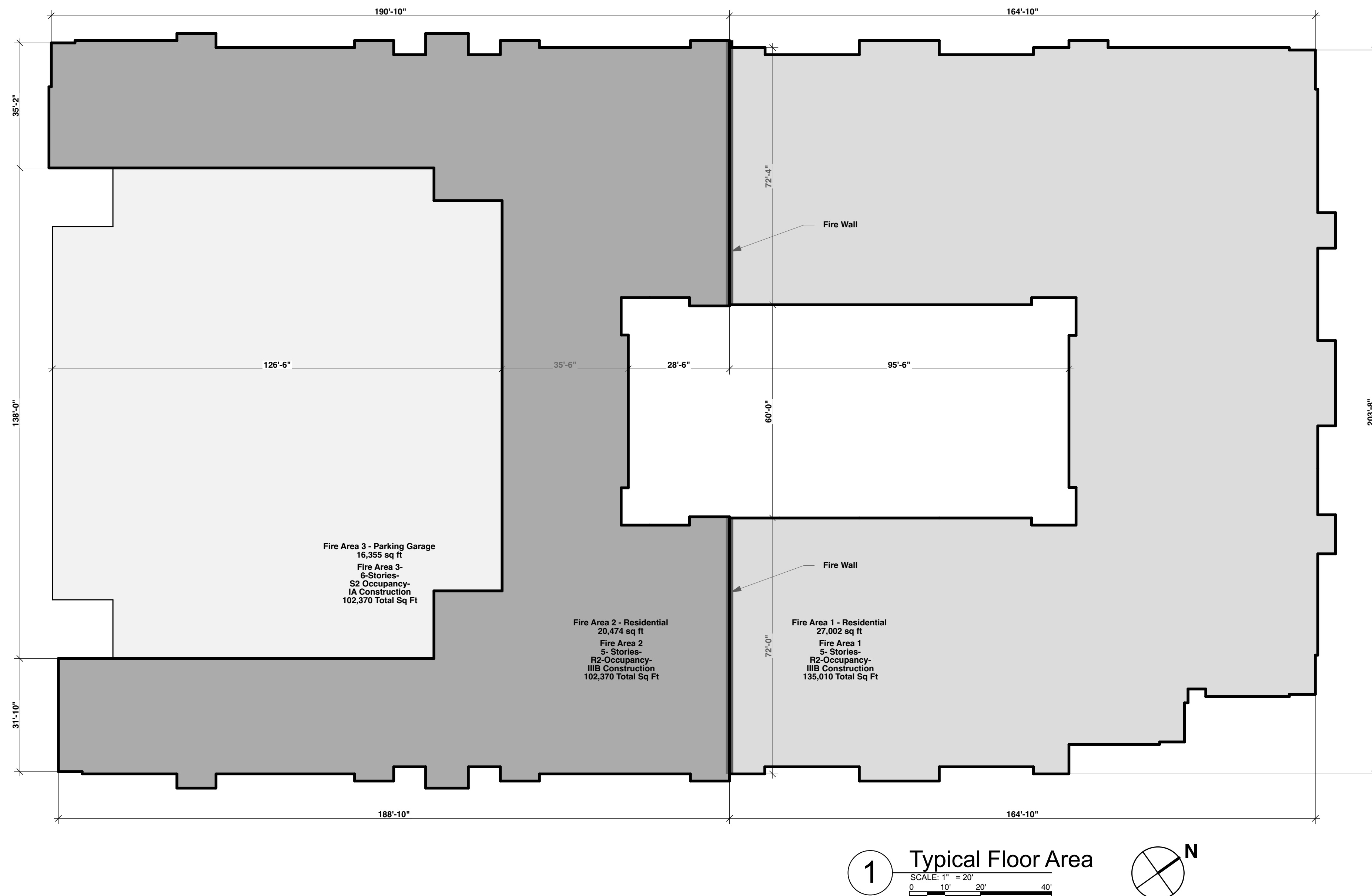


CODE ENHANCEMENTS FOR AHJ

- Additional Stair Used to Serve "Dead-End" Corridors
- Masonry Vertical Elements
- Optional 3 HR Podium @ 1st or 2nd Floor
- Fully Accessible Building - Even w/ Terraces
- Fire Area Limits with Fire Walls Well Under Allowable

OPTIONS: CONSTRUCTION TYPE

1. IIIB (FTW) 5 Stories Over 1A (Precast)
2. IIB (CFMF) 5 Stories Over 1A
3. IB (CFMF) Allowable to 12' Stories 180' *If A3 Roof Terrace



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**DAC Development Subdivision
Lot 1**

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Aurora, IL 60505
100 N. Broadway LLC
owner
DAC Development Group
640 N. La Salle Dr #410
Chicago, IL. 60654
petitioner

[illegible]

orientation

project number 519070

scale As Noted

date 8/16/21

sheet title Building Code Analysis

sheet number

sheet number

A016