

Maine Medical Center  
Visitor Garage Expansion  
Existing Building Code Report  
September 28, 2017

*DRAFT FOR CLIENT REVIEW*



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## INTRODUCTION

Perkins + Will has retained AKF Group LLC to prepare this existing building narrative code report for the vertical addition to the Visitor Garage on the Maine Medical Center Campus located in Portland, ME. The proposed addition will add three tiers to the existing garage to create a total ten-tier structure. The roof of the structure will also include parking. The existing garage is consistent with Type IIA construction.

## QUICK FACTS

- Approximately 266,000 SF
- 10 tiers
- Not sprinklered
- Existing dry-type standpipe system
- Use Group S-2

## 1. APPLICABLE CODES & STANDARDS

The State of Maine requires municipalities with more than 4,000 residents to adopt and enforce the Maine Uniform Building and Energy Code (MUBEC). The next edition of the MUBEC is expected to become effective in 2017. Therefore, the following codes are likely applicable to the Maine Medical Center (MMC) Visitor Garage project.

- International Building Code (IBC), 2015 Edition with ME Amendments
- International Existing Building Code (IEBC), 2015 Edition with ME Amendments
- International Energy Conservation Code (IECC), 2009 Edition with ME Amendments
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62., Standard for Ventilation and Indoor Air Quality, 2013 edition

In addition to those codes identified above, the State Fire Marshal's Office promulgates the Rules of the State Fire Marshal, which adopt numerous NFPA codes and standards, including the following:

- NFPA 1, Uniform Fire Code, 2006 Edition with ME Amendments
- NFPA 13, Standard for Installation of Sprinkler Systems, 2016 Edition
- NFPA 101, Life Safety Code, 2009 Edition with ME Amendments

The following federal regulation also applies to the project:

- Americans with Disabilities Act (ADA), 2010 Standards for Accessible Design

## 2. PROPOSED SCOPE OF WORK & USE

The proposed project will add three tiers of parking to the existing Visitor Garage creating a ten-tier parking structure, with parking also provided on the roof of the garage. The existing garage is consistent with Type IIA construction (i.e. noncombustible, 1-hour rated). The existing and proposed use group within the garage is Group S-2.

## 3. ADDITION

The project includes an addition to the existing building and is therefore subject to compliance with Chapter 11 of the IEBC, and Section 43.8 of NFPA 101 which are summarized as follows.

### 3.1 IEBC Requirements

The addition must comply with the code for new construction while the existing building is permitted to remain without change, except as required by the provisions of IEBC Chapter 10 for additions (IEBC 1101.1). An addition to an existing building

cannot create or extend any nonconformity in the existing building with regard to accessibility, structural strength, fire safety, means of egress, or the capacity of MEP systems (IEBC 1101.2). Any repair or alteration work taking place within the existing building to which the addition is being made must meet the applicable IEBC requirements for repairs, Level 1, 2, or 3 alterations, and/or change of occupancy as appropriate in Chapters 5, 6, 7, 8, and 9, respectively (IEBC 1101.3).

#### Height and Area

An addition cannot increase the height or area of an existing building beyond that permitted by the applicable provisions of Chapter 5 in the code for new construction (IEBC 1102.1 and 1102.2). However, the infilling of floor openings and nonoccupiable appendages such as elevator and exit stair shafts are permitted even if it results in a building area that exceeds that permitted by the applicable provisions of Chapter 5 in the code for new construction (IEBC 1102.2 exception).

#### Structural

While additions are required to comply with the code requirements for new construction, the Structural Engineer of Record will need to perform an investigation and evaluation of the impact of the proposed addition on the existing building with respect to the following elements identified in the IEBC (1103).

- Additional gravity loads,
- Lateral-force-resisting system,
- Snow drift loads, and
- Flood hazard areas.

#### Accessibility

Additions to existing buildings are subject to the applicable new construction requirements of the ADA Standards. Where the addition affects the accessibility to, or contains a primary function area, the requirements of ADA Standards 202.4 are applicable.

#### Energy Conservation

Additions to existing buildings must comply with new construction provisions of the International Energy Conservation Code (IECC) (IEBC 1106.1).

### **3.2 NFPA 101 Requirements**

Additions must comply with NFPA 101 requirements applicable to new construction. The existing portions of the building must comply with the requirements of NFPA 101 applicable to existing buildings (NFPA 101 Section 43.8.1.1). An addition cannot create or extend a nonconformity with regard to fire safety or means of egress in the existing portion of the building (NFPA 101 Section 43.8.1.2). Repair, renovation, alteration, or reconstruction work within the existing building must comply with NFPA 101 Sections 43.3, 43.4, 43.5, and 43.6, as applicable (NFPA 101 Section 43.8.1.3).

### Building Height

The addition must not increase the height of the existing building beyond that permitted for new construction (NFPA 101 Section 43.8.2).

### Fire Protection

Where there is no approved separation between the existing building and the addition, and the combined areas are required to be protected by an automatic sprinkler system per the provisions for new construction, such system must be provided (NFPA 101 Section 43.8.3). Sprinklers are not required in open parking garages and therefore this section does not apply.

## 4. HIGH-RISE BUILDING FEATURES

The proposed parking garage is considered a high-rise building since there is an occupied floor located more than 75 feet above the lowest level of fire department vehicle access (IBC 202 and NFPA 101 Section 3.3.32.7). High-rise buildings must comply with IBC 403 and NFPA 101 Section 11.8; however, Exception 2 to IBC 403.1 and NFPA Section 42.8.4 exempt open parking garages from the high-rise requirements of IBC 406.5 and NFPA 101 Section 3.3.254.6. This exempts the building from requirements such as automatic sprinkler system, smokeproof enclosures, smoke detection, voice/alarm communication system, fire command center, standby and emergency power, fire service access elevator, etc. Open parking garage requirements are identified in the next section.

## 5. OPEN PARKING GARAGE REQUIREMENTS

The following sections outline the requirements for open parking garages in the IBC and NFPA 101.

### 5.1 Exterior Openings

The area of the exterior wall openings on each tier must be at least 20% of the total perimeter wall area for that tier. The aggregate length of the openings must be at least 40% of the perimeter of the tier, unless the openings are uniformly distributed over two opposing sides of the building (IBC 406.5.2). Where openings are provided below grade, a horizontal clear space must be provided adjacent to the below-grade openings. The width of this clear space must be at least 1.5 times the depth of the space (i.e. grade to the bottom of the lowest required opening) (IBC 406.5.2.1).

In addition, NFPA 101 Section 3.3.254.6 requires open parking structures to have an exterior wall opening area of at least 1.4 SF for each linear foot of exterior perimeter. The openings must be distributed over at least 40% of the building perimeter or uniformly over two opposing sides of the building.

*There is an existing retaining wall adjacent to the south and east sides of the building. The retaining wall is approximately 1 foot from the exterior wall of the existing parking garage. This wall therefore obstructs some exterior openings on the south and east sides of the existing garage. As a result, Sub-Level 6 and Sub-Level 5 do not meet the 20% openness requirement of IBC 406.5.2. However, all levels of the garage meet*

*the openness requirements of NFPA 101 Section 3.3.254.6 (i.e. 1.4 SF/LF and 40% distribution).*

*The existing garage openings are an existing nonconforming condition per IBC provisions, but the openings comply with the openness criteria of NFPA 101. The proposed addition does not extend the nonconformity since the openings in the existing portion of the garage and the location of the existing retaining wall will not be altered as part of the proposed renovations. Therefore, the existing garage will continue to be treated as an open parking garage since it was originally approved and constructed as such. The three new tiers of the garage will comply with the openness criteria of both the IBC and NFPA 101. Therefore the work is in compliance with IEBC 1101.2 and NFPA 101 Section 43.8.1.2. See sheet G02-01 for further details.*

## 5.2 Construction Type

Open parking garages must be constructed of Type I, II, or IV construction (IBC 406.5.1). It is our understanding that the existing garage is consistent with Type IIA construction and that the addition will be Type IIA construction as well.

## 5.3 Vertical Clearance

The clear height of each floor level must be at least 7 feet (IBC 406.4.1). However, a vertical clearance of at least 8 feet, 2 inches must be provided for where van access is required per ADA 208.2.4 (ADA 502.5).

*It is our understanding that there are structural requirements that require a 10'-6" floor to floor height throughout the garage. However, when the original garage was constructed, this requirement only called for 10'-0" floor to floor. Since the stair and elevator core was constructed for future growth, the design team plans to seek a variance to provide 10'-0" floor to floor on the new tiers to align with the floor levels in the stair and elevator core.*

## 5.4 Vehicle Barrier System

A vehicle barrier system of at least 2 feet, 9 inches in height is required at the end of drive lanes and parking spaces where the vertical distance to the ground or surface directly below exceeds 1 foot (780 CMR 406.4.3).

## 5.5 Prohibited Uses

The following uses or activities are not permitted in an open parking garage (IBC 406.5.11):

- a. Vehicle repair work
- b. Parking of buses, trucks, and similar vehicles
- c. Partial or complete closing of required openings in exterior walls by tarpaulins or any other means
- d. Dispensing of fuel



## 6. HEIGHT & AREA

Open parking garages are permitted to comply with the height and area provisions of IBC 406.5.4 where the garage is used exclusively for the parking or storage of private motor vehicles, with no other uses in the building (IBC 406.5.4.1). Per IBC Table 406.5.4, Type IIA open parking structures must comply with the following requirements.

### Height & Area Summary Open Parking Structure in Type IIA Construction

Element	Proposed	Allowed	Status
Maximum Area Per Tier (SF)	26,633	50,000	✓
Aggregate Area (SF)	266,015	500,000	✓
Height (in tiers)	10	10	✓

As can be seen in the table above, the building and proposed addition comply with the height and area limits for open parking garages in Type IIA construction. See Appendix A for further details.

*There is an existing unfinished space on Sub-Level 6 of the garage. Clarification on the intended use of this space and the existing separation is needed. A fire-rated separation is needed if the use of the space is unrelated to the parking garage (i.e. retail). Note that in order to use the height and area provisions of IBC 406.5.4, the garage can only be used for the parking and storage of private motor vehicles.*

## 7. TYPE OF CONSTRUCTION

The following table summarizes the required ratings for Type IIA (Type 111) construction in accordance with IBC Table 601 and NFPA 1 Table A.12.2.1.

### IBC Table 601 & NFPA 101 Table A.12.2.1 Fire-Resistance Rating Requirements for Building Elements (Hours)

Element	Type IIA (Type 111) Rating (hours)
Primary structural frame (see Section 202)	1 <sup>A</sup>
Bearing walls	
Exterior	1 <sup>A</sup>
Interior	1 <sup>A</sup>
Nonbearing walls and partitions	
Exterior	See Table 602 discussion in Section 8.1.
Nonbearing walls and partitions	
Interior	0
Floor construction and secondary members (see Section 202)	1 <sup>A</sup>
Roof construction and secondary members (see Section 202)	1

<sup>A</sup> Not less than the rating of the assemblies supported, i.e. shaft enclosures, etc.

## 8. FIRE AND SMOKE PROTECTED FEATURES

### 8.1 Exterior Walls & Opening Protectives

The non-bearing exterior wall requirements for the garage are based on the fire separation distance (FSD) of each wall. The FSD is measured perpendicularly from the face of each exterior wall to the closest interior lot line, the centerline of a street, alley, or public way, or an imaginary lot line between two buildings on the same lot. Where the FSD is greater than or equal to 10 feet, the non-bearing exterior walls do not require a fire-resistance rating.

Where Table 601 or 602 requires an exterior wall to be fire-resistance rated and the FSD is less than or equal to 10 feet, the wall must be rated for exposure to fire from both sides (IBC 705.5). The exterior walls are required to maintain their structural stability for the duration of the time indicated by the fire-resistance rating.

**IBC Table 602 Fire-Resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance**  
Type IIA Construction – Open Parking

Fire Separation Distance = X (feet)	Group S-2
$X < 5$	1
$5 \leq X < 10$	1
$10 \leq X$	0

While the garage is required to meet the openness criteria of IBC 406.5.2, the code also requires evaluation of the FSD of each exterior wall in relation to allowed openings. Note that the open area in each wall is unlimited when the FSD is 10 feet or greater. The opening limitations are summarized below for an open parking garage in Type IIA construction.

**IBC Table 705.8 Maximum Area of Exterior Wall Openings Based on Fire Separation Distance and Degree of Opening Protection**

Fire Separation Distance (feet)	Degree of Opening Protection	Allowable Area
$X < 5$	Unprotected, Nonsprinklered	Not Permitted
$5 \leq X < 10$	Unprotected, Nonsprinklered	10%
$10 \leq X$	Unprotected, Nonsprinklered	No Limit <sup>A</sup>

<sup>A</sup> The area of openings in an open parking structure with a FSD of 10 feet or greater is not limited.

*Based on AKF's measurement of the site plan, the garage is provided with at least 10 feet of FSD around the entire perimeter. Therefore, unrated nonbearing exterior walls and unlimited unprotected openings are permitted. Note that an imaginary lot line must be placed between the new Congress Street building and the Visitor Garage.*

*Based on the existing garage openings on the west exterior wall, the imaginary lot line must be placed at least 10 feet from the exterior walls of the garage. This will affect the required rating for the exterior wall of the adjacent Congress Street Building.*

## 8.2 Shaft Enclosures

Vertical openings in open parking garages are not required to be enclosed, including stairways used for egress purposes (IBC 406.5.9 & 1019.3(6) and NFPA 101 Section 42.8.2.2.3.2 & 42.8.3.1.2).

## 8.3 Fire Wall

It is our understanding that a fire wall will be provided between the west stair tower and the Congress Street development. Direct access will be provided through this fire wall from the Visitor Garage to the Congress Street building.

The fire wall must comply with the requirements of IBC 706 and must have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for 3 hours. This fire resistance rating is based on the hospital use (i.e. Group I-2) in the Congress Street building (IBC Table 706.4).

### Openings

Individual openings in the fire wall cannot exceed 156 SF and the aggregate width of openings cannot exceed 25% of the length of the wall at each floor level (IBC 706.8). Per IBC Table 716.5, fire walls having a required assembly rating of 3 hours also require 3-hour fire doors. Doors must be latching and self- or automatic-closing (IBC 716.5.9).

### Horizontal Continuity

Fire walls must be continuous from exterior wall to exterior wall and must extend at least 18 inches beyond the exterior surface of exterior walls (IBC 706.5). However, there are exceptions permitting the fire wall to terminate at the interior surface of the exterior sheathing or siding. Where the fire wall intersects exterior walls and form an angle less than 180 degrees, the exterior walls must have a 1-hour fire-resistance rating with  $\frac{3}{4}$ -hour opening protectives for a horizontal distance of 4 feet, or must be rated based on an imaginary lot line drawn between buildings (IBC 706.5.1).

Fire walls must extend to the outer edge of horizontal projecting elements such as balconies, roof overhangs, canopies, marquees, and similar projections that are within 4 feet of the fire wall (IBC 706.5.2). Note however there are some exceptions to this requirement where the exterior wall behind the projecting element is rated. The applicability of the exceptions depends on whether the projection contains concealed spaces.

### Vertical Continuity

Fire walls must have vertical continuity such that they extend from the foundation to a termination point at least 30 inches above both adjacent roofs (IBC 706.6). However, there are exceptions to this section, including exceptions for stepped buildings and where both buildings are provided with at least Class B roof coverings.

## 9. INTERIOR FINISH

The interior finishes of the walls, ceilings, and floors of the building are governed by IBC Chapter 8 and NFPA 101 Chapter 10. These chapters outline the testing requirements for the different surfaces. The required tests and finish classifications are summarized in the tables below.

### Finish Characteristics

Element	Test Method	Criteria
Wall & Ceiling Finishes	ASTM E84 or UL 723	Class A = FSI 0-25; SDI 0-450
		Class B = FSI 26-75; SDI 0-450
		Class C = FSI 76-200; SDI 0-450
Floor Finish	NFPA 253	Class I = 0.45 W/cm <sup>2</sup> or greater
		Class II = 0.22 W/cm <sup>2</sup> up to 0.45 W/cm <sup>2</sup>
	DOC FF-1	Pass

#### Notes:

FSI = flame spread index

SDI = smoke-developed index

### Interior Wall and Ceiling Finish Requirements by Occupancy (Nonsprinklered Building)

Use Group	Walls & Ceilings			Floors	
	Exit enclosures and exit passageways	Corridors	Rooms and enclosed spaces	Exits and corridors	Other spaces
S-2	B	B	C	Class II & DOC FF-1 <sup>A</sup>	DOC FF-1

<sup>A</sup> Requirements for corridors are applicable to spaces open to corridors.

The tables above show the required interior finish classes throughout the building based on the most restrictive requirements of IBC Table 803.11 and NFPA 101 Table A.10.2.2. All floors throughout the building must pass the DOC FF-1 "pill test".

## 10. FIRE PROTECTION SYSTEMS

### 10.1 Automatic Sprinkler System

An automatic sprinkler system is not required in open parking garages (IBC 903.2 and NFPA 101 Section 42.8.3.5).

### 10.2 Manual Fire Alarm System

Open parking garages are not required to be equipped with a manual fire alarm system (IBC 907.2 and NFPA 101 Section 42.8.3.4.1.3); however, the existing manual fire alarm system will be maintained and extended to the addition.

### 10.3 Standpipe System

A standpipe system is required in the parking garage since there is a floor level more than 30 feet above the lowest level of fire department vehicle access (IBC 905.3.1). Class I manual dry standpipes are permitted in open parking garages that are subject to freezing temperatures. The hose connections must be located as required for Class II standpipes per IBC 905.5 (IBC 905.3.1(3)). The existing garage is provided with a dry-type standpipe system. This system will be extended to the addition.

## 11. MEANS OF EGRESS

The applicable means of egress requirements for new construction are described below.

### 11.1 Egress Summary

The occupant loads throughout the building are calculated in accordance with IBC Table 1004.1.2 and NFPA 101 Table 7.3.1.2. The capacities of the exits are calculated in accordance with IBC 1005.1 and NFPA 101 Table 7.3.3.1. See sheet G01-01 and G01-02 for detailed egress calculations.

### 11.2 Exit Access Travel Distance

The exits in the new portions of the parking garage are required to be arranged such that the maximum exit access travel distance is 300 feet. Exit access travel distance is permitted to be measured to an exit door of an enclosed stair or to the closest riser of an unenclosed stairway (IBC 1017.3 and NFPA 101 Table 42.8.2.6.1, Note (2)). Based on AKF's measurement of the proposed floor plans, the exit access travel distance in the garage is within the limit described above.

***Note that the exit access travel distance on Sub-Level 6 was measured to the vehicle exit. Although there is not a designated pedestrian path, the existing vehicle exit is marked by exit signage and appears to be serving as a means of egress from Sub-Level 6. This an existing condition that is not being altered by the proposed addition. Therefore, the condition is permitted to remain. We recommend adding a striped pedestrian path should future alterations to the garage facilitate such work.***

### 11.3 Dead Ends

Where more than one exit or exit access doorway is required, the exit access must be arranged such that there are no dead ends in corridors more than 50 feet (IBC 1020.4(2) and NFPA 101 Section 42.8.2.5.2).

### 11.4 Number of Exits and Continuity

Two means of egress must be provided from individual spaces where the occupant load and/or common path of travel distance exceeds the limitations of IBC Table 1006.2.1 and NFPA 101 Section 42.8.2.5.1.

### Spaces with One Means of Egress

Use Group	Maximum Occupant Load	Maximum Common Path of Travel Distance (ft)
S-2	29	50

All spaces within each story must have access to the minimum number of independent exits from the story as required by IBC Table 1006.3.1 and NFPA 101 Section 7.4.1.2 below.

*As discussed in Section 11.2 above, the existing vehicle exits are serving as part of the means of egress from Sub-Level 6. Since this existing condition is not being altered by the proposed addition, it is permitted to remain. We recommend adding a striped pedestrian path should future alterations to the garage facilitate such work. Occupants on Sub-Level 6 also have access to the garage stairs on Sub-Level 5.*

### IBC Table 1021.1 Minimum Number of Exits Per Story

Occupant Load (persons per story)	Minimum Number of Exits (per story)
1-500	2
501-1,000	3
More than 1,000	4

Where more than one means of egress is required, the exits must be separated by  $\frac{1}{2}$  of the overall diagonal distance of the space served (IBC 1007.1.1 and NFPA 101 Section 7.5.1.3.2).

## 11.5 Doors

A minimum clear width of 32 inches is required for doors in accordance with IBC 1010.1.1 and NFPA 101 Section 7.2.1.2.3.2. All doors serving an occupant load of 50 or more people must swing in the direction of egress travel (IBC 1010.1.2 and NFPA 101 Section 7.2.1.4.2).

## 12. ACCESSIBILITY

The accessibility requirements applicable to new construction apply to the addition (IEBC 1105.1). This includes the following requirements.

### 12.1 Accessible Route

At least one accessible route must be provided throughout the building and must connect each accessible story (ADA 206.2).

### 12.2 Accessible Entrances

At least 60% of public entrances must be accessible. Where direct access from parking structures to buildings or facility entrances are provided, such access must be accessible (ADA 206.4.1). In addition, where direct access is provided for

pedestrians from a parking structure to a building entrance, each direct access to the building must be accessible (ADA 206.4.2).

### 12.3 Parking

Accessible parking spaces must be provided in accordance with the following table (ADA 208.2).

**Table 208.2 – Accessible Parking Spaces**

Total Parking Spaces Provided	Minimum Number of Accessible Spaces
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1,000	2% of total
1,001 and over	20 plus 1 for each 100 over 1,000

In addition to the accessible spaces required above, van accessible spaces must be provided at a rate of one for every six accessible spaces, but no less than one (ADA 208.2.4). Accessible parking spaces must be provided on the shortest accessible route to an accessible building entrance, or accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, the accessible spaces must be dispersed and located near the accessible entrances; however van accessible spaces are permitted to be grouped on one level (ADA 208.3).

Based on the plans provided to AKF on August 7, 2017, the garage appears to be provided with approximately 713 spaces. Therefore at least 15 accessible spaces, 3 of which are van accessible, must be provided. Based on the proposed plans, approximately 20 accessible spaces are being provided. Although none of the spaces are labeled as being van-accessible, it appears as though at least 3 van accessible spaces are provided based on the width of the parking spaces.

## 13. STRUCTURAL

This review does not include an analysis of structural requirements. Alterations to existing structural elements and the introduction of new structural loads must be reviewed with the structural engineer.

## 14. MECHANICAL

Open parking garages are not required to be provided with mechanical ventilation (IBC 406.5.10).

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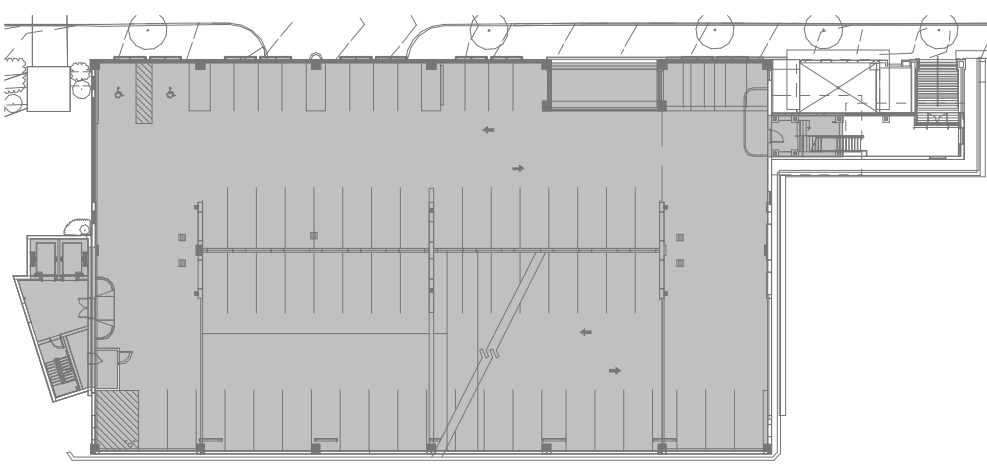
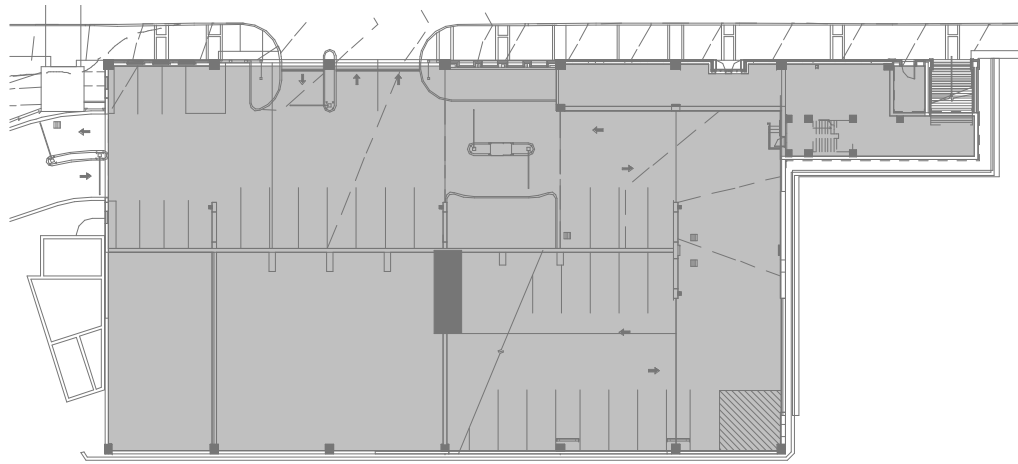
## 15. ENERGY CONSERVATION

Additions to existing buildings must comply with the requirements of the IECC that are applicable to new construction; however the existing, unaltered portions of the building are not required to comply with such requirements. Additions must comply with IECC C402, C403, and C404 or ASHRAE 90.1 – 2013 (IECC C502.1).



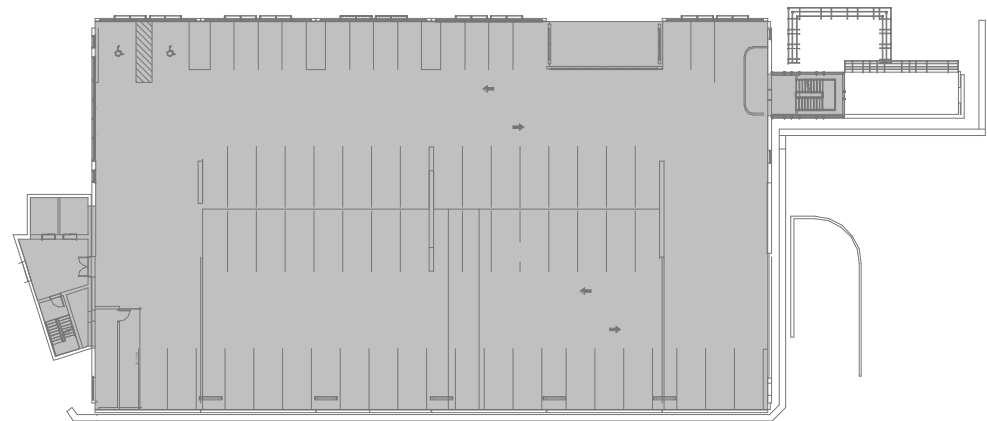
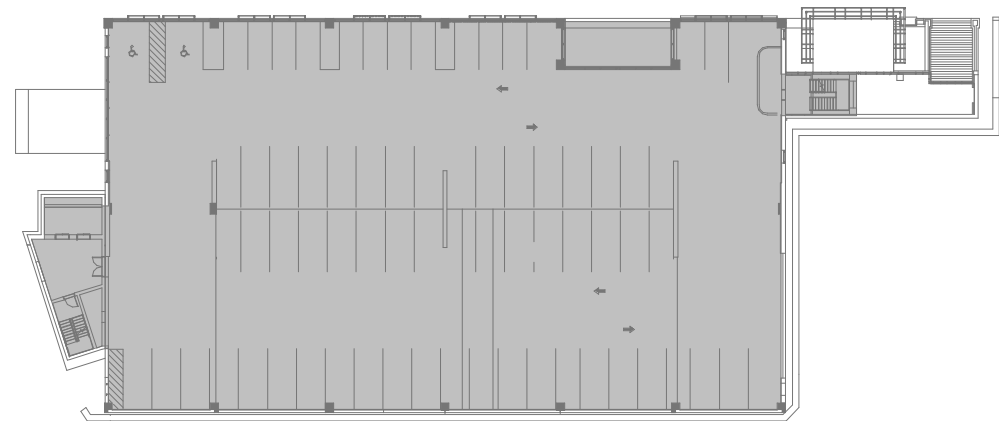
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## APPENDIX A – HEIGHT AND AREA ANALYSIS



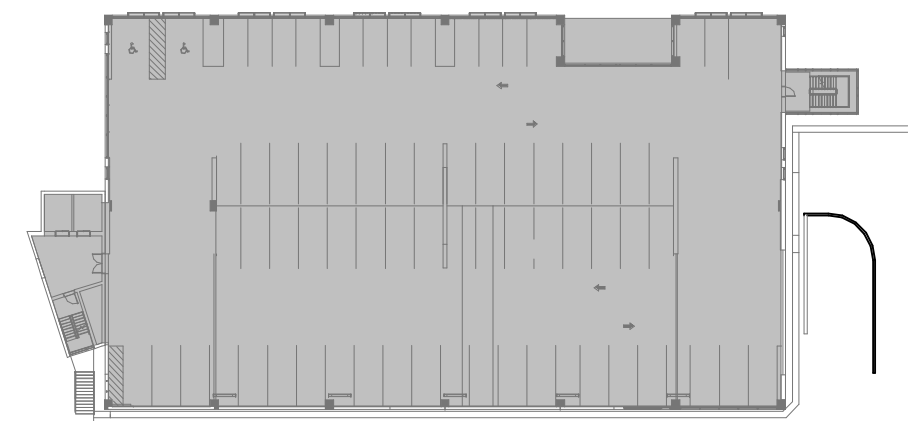
**1 SUB-LEVEL 6 = 26,633 SF**  
SCALE: 1" = 60'-0"

**2 SUB-LEVEL 5 = 26,598 SF**  
SCALE: 1" = 60'-0"



**3 SUB-LEVEL 4 = 26,598 SF**  
SCALE: 1" = 60'-0"

**4 SUB-LEVEL 3 = 26,598 SF**  
SCALE: 1" = 60'-0"



**5 SUB-LEVEL 2 = 26,598 SF**  
SCALE: 1" = 60'-0"

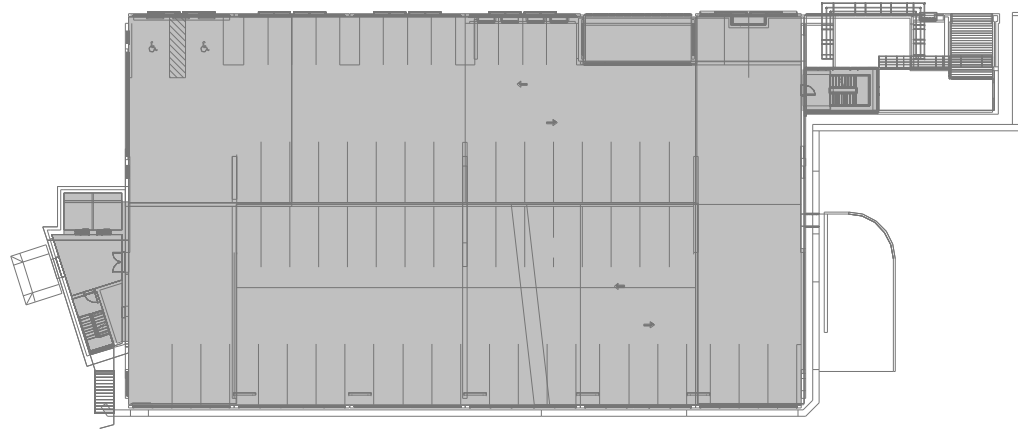
**HEIGHT & AREA SUMMARY  
OPEN PARKING STRUCTURE IN TYPE IIA CONSTRUCTION**

ELEMENT	PROPOSED	ALLOWED	STATUS
MAXIMUM AREA PER TIER (SF)	26,633	50,000	✓
AGGREGATE AREA (SF)	266,015	500,000	✓
HEIGHT (IN TIERS)	10	10	✓

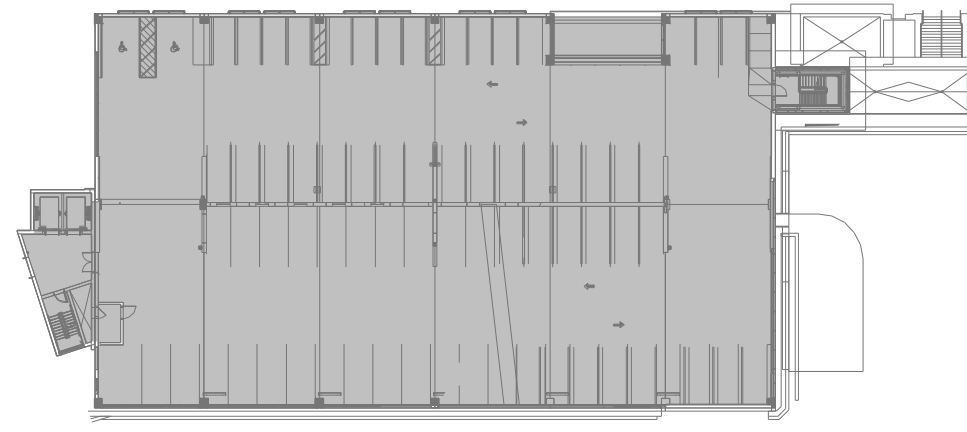


PROJECT: MMC - VISITOR GARAGE EXPANSION  
TITLE: HEIGHT & AREA ANALYSIS - S6 THROUGH S2  
PROJECT No.: B150311-000 DATE: 09/28/2017 CHKD BY: CMA

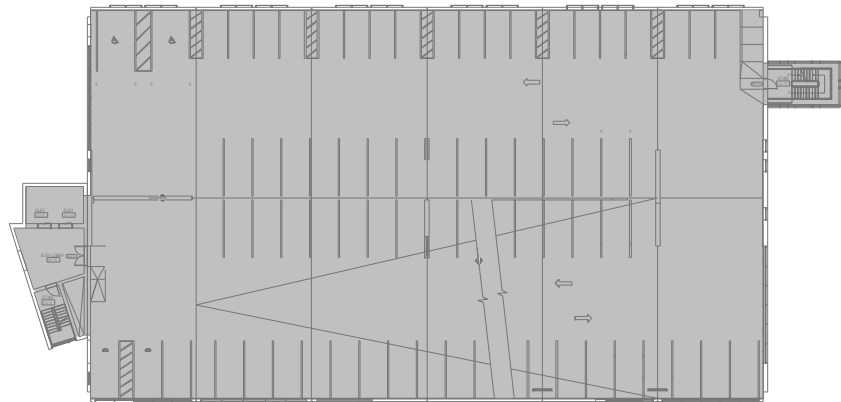
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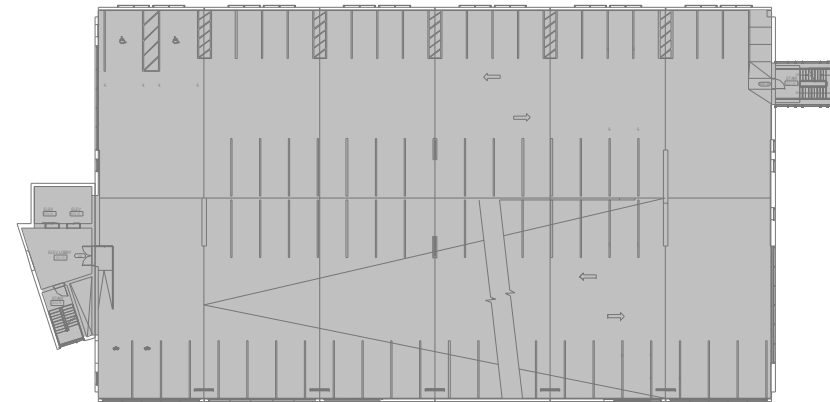
**6** SUB-LEVEL 1 = 26,598 SF  
SCALE: 1" = 60'-0"



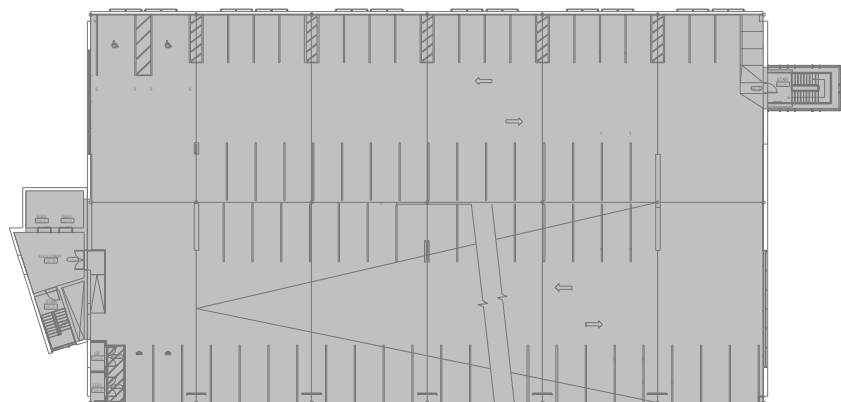
**7** BASEMENT = 26,598 SF  
SCALE: 1" = 60'-0"



**8** GROUND = 26,598 SF  
SCALE: 1" = 60'-0"



**9** LEVEL 1 = 26,598 SF  
SCALE: 1" = 60'-0"



**10** LEVEL 2 = 26,598 SF  
SCALE: 1" = 60'-0"

**HEIGHT & AREA SUMMARY  
OPEN PARKING STRUCTURE IN TYPE IIA CONSTRUCTION**

ELEMENT	PROPOSED	ALLOWED	STATUS
MAXIMUM AREA PER TIER (SF)	26,633	50,000	✓
AGGREGATE AREA (SF)	266,015	500,000	✓
HEIGHT (IN TIERS)	10	10	✓



PROJECT: MMC - VISITOR GARAGE EXPANSION  
TITLE: HEIGHT & AREA ANALYSIS - S1 THROUGH LEVEL 2  
PROJECT No.: B150311-000 DATE: 09/28/2017 CHKD BY: CMA

SKETCH No.: HA.002  
SCALE: 1" = 60'-0"

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