



PROJECT NO:	591492
DATE:	OCTOBER 30, 2020
REVISIONS:	
DATE:	
DESCRIPTION:	

SECTION 408. GROUP I-3 REQUIREMENTS	408.3.7 SALLYPORTS SALLYPORTS SHOWN IN LIFE-SAFETY PLANS CONFORM TO CONTIGUOUS AND UNOBSTRUCTED PASSAGE	408.5.1 FLOOR OPENINGS NO OPENINGS IN FLOORS IN HOUSING UNITS.	408.8 SUBDIVISION OF RESIDENT HOUSING AREAS REFER TO LIFE-SAFETY PLANS IDENTIFYING SUBDIVISION LAYOUT.
408.2 OTHER OCCUPANCIES NO MEANS OF EGRESS TRAVERSE OTHER USE AREAS.	408.3.8 INTERIOR EXIT STAIRWAY AND RAMP CONSTRUCTION NO INTERIOR STAIRWAYS OR RAMPS CONTAIN GLAZING IN DOORS OR INTERIOR WALLS.	408.5.2 SHAFT OPENINGS IN COMMUNICATING FLOOR LEVELS NO ADDITIONAL SHAFT OPENINGS, PLUMBING CHASE CONFORMS TO SECTION.	408.8.1 OCCUPANCY CONDITIONS 3 AND 4 SMOKE TIGHT PARTITION SHOWN IN HOUSING PO'.
408.3 MEANS OF EGRESS ALL MEANS OF EGRESS COMPLY WITH CHAPTER 10 REQUIREMENTS	408.4 LOCKS ALL EGRESS DOORS CONFORM TO LOCKING ARRANGEMENTS.	408.6 SMOKE BARRIERS REFER TO LIFE-SAFETY PLANS FOR SMOKE BARRIER LOCATIONS.	408.8.3 OPENINGS IN ROOM FACE ALL OPENINGS CONFORM TO REQUIREMENTS OF SECTION.
408.3.1 DOOR WIDTH ALL DOORS TO RESIDENT SLEEPING UNITS HAVE CLEAR WIDTH NOT LESS THAN 28 INCHES.	408.4.1 REMOTE RELEASE REFER TO SECURITY DRAWINGS FOR REMOTE RELEASE LOCKS.	408.6.1 SMOKE COMPARTMENTS REFER TO LIFE-SAFETY PLANS FOR TRAVEL DISTANCES.	408.8.4 SMOKE-TIGHT DOORS DOORS CONFORM TO SMOKE-TIGHT REQUIREMENTS.
408.3.2 SLIDING DOORS NO SLIDING DOORS IN BUILDING 2.	408.4.2 POWER-OPERATED DOORS AND LOCKS EMERGENCY POWER PROVIDE FOR ALL POWER OPERATED DOORS AND LOCKS.	408.6.2 REFUGES ALL SMOKE COMPARTMENTS COMPLY WITH REFUGE AREA REQUIREMENTS.	408.9 WINDOWLESS BUILDINGS WINDOWS/SLAZING SHOWN ARE NON-OPERABLE. AN ENGINEERED SMOKE CONTROL SYSTEM IS PROVIDED. REFER TO MECHANICAL DRAWINGS.
408.3.3 GUARD TOWER DOORS NO GUARD TOWERS OR DOORS SHOWN.	408.4.3 REDUNDANT OPERATION DOORS ARE PROVIDED WITH MECHANICALLY OPERATED RELEASE MECHANISMS.	408.6.3 INDEPENDENT EGRESS ALL SMOKE COMPARTMENTS HAVE INDEPENDENT EGRESS.	408.10 FIRE ALARM SYSTEMS FIRE ALARM SYSTEM PROVIDED
408.3.4 SPIRAL STAIRWAYS NO SPIRAL STAIRWAYS SHOWN.	408.4.4 RELOCK CAPACITY DOORS CONFORM TO REMOTE UNLOCKING REQUIREMENTS.	408.7 SECURITY GLAZING WINDOWS AND DOORS SHOWN IN DRAWINGS WITH FIRE BARRIERS, FIRE PARTITIONS AND SMOKE BARRIERS CONFORM TO SECTION REQUIREMENTS.	408.11 AUTOMATIC SPRINKLER SYSTEM ADDITION IS EQUIPPED THROUGHOUT WITH AUTOMATIC SPRINKLER SYSTEM.
408.3.5 SHIPS LADDERS NO SHIPS LADDERS WILL BE USED FOR CONTROL ROOMS OR ELEVATED FACILITY OBSERVATION.	408.5 PROTECTION OF VERTICAL OPENINGS NO SHAFT PENETRATIONS OR SHAFT ENCLOSURES INDICATED.	408.8.2 REFUGES ALL SMOKE COMPARTMENTS COMPLY WITH REFUGE AREA REQUIREMENTS.	
408.3.6 EXIT DISCHARGE REFER TO ARCHITECTURAL SITE PLAN (SHEET A1.1). INMATE REFUGE AREAS SHOWN CONFORM TO 56-FOOT DISTANCE FROM BUILDING AND 15-SF REQUIREMENT PER PERSON.		408.8.3 INDEPENDENT EGRESS ALL SMOKE COMPARTMENTS HAVE INDEPENDENT EGRESS.	
		408.8.4 SMOKE-TIGHT DOORS DOORS CONFORM TO SMOKE-TIGHT REQUIREMENTS.	
		408.8.5 PROTECTION OF VERTICAL OPENINGS NO SHAFT PENETRATIONS OR SHAFT ENCLOSURES INDICATED.	

SPECIAL USE REQUIREMENTS

703.3 Alternative methods for determining fire resistance The required fire resistance of a building element shall be established by the following: • Fire resistance designs documented in approved sources • Prescriptive designs as prescribed in Section 721	707.5.1 Fire Barriers - Supporting Construction Supporting construction for fire barrier walls shall be protected and fire-resistive rated as the fire barrier.	716.1.2.1 Safety Glazing Fire-protection-rated glazing installed in fire doors or fire window assemblies shall comply with Chapter 24.																					
705.3 Buildings on the Same Lot Exception 1 - applies as both the existing building and the new building are regulated as separate buildings.	707.6 Fire Barriers - Openings Each opening shall be protected per Section 716. Limited to maximum aggregate width of 25% of length of wall, and maximum area of any single opening shall be 156 SF. Exception 1: Openings shall not be limited to 156 SF where adjoining floor areas are fully sprinklered.	716.1.2.3 Fire-Resistance-Rated Glazing Fire-resistance-rated glazing tested as part of a fire-resistance-rated wall or floor/ceiling assembly in accordance with ASTM E119 or UL 263 and labeled in accordance with Section 703.6 shall not otherwise be required to comply with Section 716.																					
Table 705.8 Maximum area of exterior wall openings	714.6 Penetrations - Nonfire-Resistance-Rated Assemblies Penetrations shall comply with Section 713 or shall comply with 714.6.1 or 714.6.2.	717.4 Access and identification [dampers] Provide access to all fire, smoke, and combination dampers large enough to permit inspection and maintenance of the damper and its operable parts. Access shall not affect or reduce the rated integrity. Identify all access points with a label complying with Section 717.4.																					
<table border="1"> <tr><th>Fire Separation Distance</th><th>Protection</th><th>Allowable Area</th></tr> <tr><td rowspan="3">30 feet or greater</td><td>Unprotected, Nonsprinklered</td><td>No Limit</td></tr> <tr><td>Unprotected, Sprinklered</td><td>No Limit</td></tr> <tr><td>Protected</td><td>No Limit</td></tr> </table>	Fire Separation Distance	Protection	Allowable Area	30 feet or greater	Unprotected, Nonsprinklered	No Limit	Unprotected, Sprinklered	No Limit	Protected	No Limit	715.1 Fire-Resistant Joint Systems Joints in fire-resistance-rated walls, assemblies, roofs, floors, and ceilings shall be protected by an approved fire-resistant joint system.	717.6 Horizontal Assemblies [dampers] Penetrations by ducts and air transfer openings shall be protected by a shaft enclosure or shall comply with Sections 717.6.1 through 717.6.3. Access shall not affect or reduce the rated integrity. Identify all access points with a label complying with Section 717.4.											
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706.4 Fire Walls 2-Hour fire-resistance rating permitted for Group I that is Type II construction.	Table 716.1 Opening Protectives	717.6.3 Nonfire-resistance-rated floor assemblies [dampers] Penetrations by ducts and air transfer openings shall be protected in accordance with Section 717.																					
706.5 Fire Walls - Horizontal Continuity Exception 3 - permits the fire wall to terminate at the interior surface of noncombustible exterior wall where the building on each side of the fire wall is protected by an automatic sprinkler system.	<table border="1"> <tr><th>Fire Door and Fire Shutter Fire Protection Ratings</th><th>Assembly Rating</th><th>Fire Door/Shutter Rating</th></tr> <tr><td>Fire Walls and Fire Barriers: Resistance greater than 1 hour</td><td>2 hours</td><td>1-1/2 hours</td></tr> <tr><td>Fire Barriers: Shaft, exit enclosure, exit passageway</td><td>1 hours</td><td>1 hours</td></tr> <tr><td>Fire Barriers: Other</td><td>1 hours</td><td>3/4 hours</td></tr> <tr><td>Fire Partitions: Corridor walls</td><td>1 hours</td><td>1/3 hours</td></tr> <tr><td>Fire Partitions: Other</td><td>1 hours</td><td>3/4 hours</td></tr> <tr><td>Smoke Barriers</td><td>1 hours</td><td>1/3 hours</td></tr> </table>	Fire Door and Fire Shutter Fire Protection Ratings	Assembly Rating	Fire Door/Shutter Rating	Fire Walls and Fire Barriers: Resistance greater than 1 hour	2 hours	1-1/2 hours	Fire Barriers: Shaft, exit enclosure, exit passageway	1 hours	1 hours	Fire Barriers: Other	1 hours	3/4 hours	Fire Partitions: Corridor walls	1 hours	1/3 hours	Fire Partitions: Other	1 hours	3/4 hours	Smoke Barriers	1 hours	1/3 hours	
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706.5.1 Fire Walls - Exterior Walls Fire wall intersects exterior wall and forms an angle less than 150 degrees	<table border="1"> <tr><th>Exterior Walls Rating</th></tr> <tr><td>1-hour for minimum 4-feet each side of fire wall, with opening protectives</td></tr> </table>	Exterior Walls Rating	1-hour for minimum 4-feet each side of fire wall, with opening protectives																				
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706.6 Fire Walls - Vertical Continuity Fire walls extend a minimum of 30 inches above adjacent roofs	<table border="1"> <tr><th>Fire Window assembly fire protection ratings</th><th>Assembly Rating</th><th>Fire Window Rating</th></tr> <tr><td>Interior Fire Walls</td><td>All</td><td>Not permitted</td></tr> <tr><td>Interior Fire Barriers</td><td>Greater than 1-hour</td><td>Not permitted</td></tr> <tr><td>Interior Fire Barriers</td><td>1 hours</td><td>Not permitted</td></tr> <tr><td>Interior Smoke Barriers</td><td>1 hours</td><td>3/4 hours</td></tr> <tr><td>Interior Fire Partitions</td><td>1 hours</td><td>3/4 hours</td></tr> <tr><td>Interior Fire Partitions</td><td>1/2 hours</td><td>1/3 hours</td></tr> </table>	Fire Window assembly fire protection ratings	Assembly Rating	Fire Window Rating	Interior Fire Walls	All	Not permitted	Interior Fire Barriers	Greater than 1-hour	Not permitted	Interior Fire Barriers	1 hours	Not permitted	Interior Smoke Barriers	1 hours	3/4 hours	Interior Fire Partitions	1 hours	3/4 hours	Interior Fire Partitions	1/2 hours	1/3 hours	
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706.8 Fire Walls - Openings Each opening shall be protected per Section 716.5 and shall not exceed 156 sf Exception 2: Openings may exceed 156 SF where both buildings are sprinklered Aggregate width of all openings at any floor level shall not exceed 25% of length of wall																							

FIRE-RESISTANCE-RATED CONSTRUCTION

903.1 General (automatic sprinkler systems) Automatic NFPA 13 wet-pipe sprinkler system shall be provided throughout entire building, except at recreation yards (recreation)
Table (F)906.3(1) Portable Fire Extinguisher distribution Maximum floor area coverage shall not exceed 11,250 SF Maximum travel distance shall not exceed 75 feet Shall not be obstructed or obscured from view Shall be provided where flammable or combustible liquids are stored, used or dispensed.
906.8 Portable Fire Extinguisher Cabinets Exception 2: Fire Extinguishers shall be locked and located in staff positions in I-3.
907.2 Where required [fire alarm and detection system] Manual and automatic fire alarm system shall be provided.
907.2.6.3 Fire Alarm - Group I-3 Group I-3 occupancies shall be equipped with a manual fire alarm system and automatic smoke detection system for alerting staff.
907.2.6.3.1 Fire Alarm - Group I-3 - System type Actuation shall initiate an approved alarm signal which shall be transmitted to the fire alarm control panel.
907.2.6.3.2 Fire Alarm - Group I-3 - Manual Fire Alarm Boxes in Detainee areas Not required to be located in detainee areas where the fire alarm boxes are provided at staff-attended locations having direct supervision over the areas where the fire alarm boxes are provided.
907.2.6.3.3 Automatic Smoke Detection System - Group I-3 Exception 3: Not required in sprinklered sleeping units with less than 4 occupants.
909.0 Smoke Control System Smoke control system shall be based on the "exhaust" method.
909.16 Fire-fighter's smoke control panel Shall be provided at existing Master Control Room

FIRE PROTECTION SYSTEMS

ENERGY SUMMARY	ROOF/CEILING ASSEMBLY: RFA-2: METAL PANEL ON UNDERLAYMENT ON R30 RIGID INSULATION ON METAL DECK	FLOORS OVER UNCONDITIONED SPACE: DESCRIPTION OF ASSEMBLY: NA
ENERGY REQUIREMENTS THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTENTION REQUIRED TO MEET THE ENERGY CODE SHALL BE IDENTIFIED BY THE DESIGNER. THE DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE ENERGY INFORMATION TO THE PLAN DATA SHEET. IF PERFORMANCE METHOD AT THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS. ANNUAL ENERGY COST FOR THE PROPOSED DESIGN	DESCRIPTION OF ASSEMBLY: .032 U-VALUE OF TOTAL ASSEMBLY: R-30 R-VALUE OF INSULATION: R-30	DESCRIPTION OF ASSEMBLY: NA U-VALUE OF TOTAL ASSEMBLY: NA R-VALUE OF INSULATION: NA
EXISTING THERMAL ENVELOPE COMPLIANCE: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES EMPT BUILDING: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES CLIMATE ZONE:	EXTERIOR WALLS: WA ASSEMBLY: 4" BRICK/BLOCK ON SPF INSULATION ON 1/2" CMU DESCRIPTION OF ASSEMBLY: .105 U-VALUE OF TOTAL ASSEMBLY: R-7.6 REQUIRED R-VALUE OF INSULATION: R-7.6 REQUIRED OPENINGS (WINDOWS OR DOORS WITH GLAZING): U-VALUE OF ASSEMBLY: .3 SOLAR HEAT GAIN COEFFICIENT: .3 PROJECTION FACTOR: 0 DOOR R-VALUES: .25	FLOORS SLAB ON GRADE: DESCRIPTION OF ASSEMBLY: 4" CONCRETE DESCRIPTION OF ASSEMBLY: .83 U-VALUE OF TOTAL ASSEMBLY: NA R-VALUE OF INSULATION: NA HORIZONTAL/VERTICAL REQUIREMENT: NOT REQUIRED SLAB HEATED: NO
METHOD COMPLIANCE: ENERGY CODE: <input type="checkbox"/> PERFORMANCE <input checked="" type="checkbox"/> PRESCRIPTIVE (IF OTHER SPECIFY SOURCE HERE) ASHRAE 90.1: <input type="checkbox"/> PERFORMANCE <input checked="" type="checkbox"/> PRESCRIPTIVE	ROOF/CEILING ASSEMBLY: RFA-1: MEMBRANE ON COVER BOARD ON R30 RIGID INSULATION ON METAL DECK DESCRIPTION OF ASSEMBLY: .032 U-VALUE OF TOTAL ASSEMBLY: R-30 R-VALUE OF INSULATION: R-30	
THERMAL ENVELOPE:	WALLS BELOW GRADE: DESCRIPTION OF ASSEMBLY: NA DESCRIPTION OF ASSEMBLY: NA U-VALUE OF TOTAL ASSEMBLY: NA R-VALUE OF INSULATION: NA	

ENERGY SUMMARY

Applicable Codes, Standards, and/or References	
ICC/ANSI A117.1	2009
International Building Code (IBC) with SC Modifications	2018
International Fire Code (IFC) with SC Modifications	2018
International Plumbing Code (IPC)	2018
International Mechanical Code (IMC) with SC Modifications	2018
International Fuel Gas Code (IFGC) with SC Modifications	2018
International Energy Conservation Code (IECC)	2009
National Electrical Code (NFPA 70) with SC Modifications	2017

ADMINISTRATION

PRIMARY OCCUPANCY CLASSIFICATION	I-3; Institutional
SECONDARY OCCUPANCY CLASSIFICATION	N/A
CONSTRUCTION TYPE	II-B
FULLY SPRINKLERED	Yes
MIXED OCCUPANCY	No
NON-SEPARATED MIXED USE	No
SEPARATED MIXED USE	No

FRONTAGE INCREASE TABULATIONS	F	P	W	EA INCREASE FOR FRONTAGE (%)
BUILDING HEIGHT IN FT (ACTUAL)	BUILDING STOREY (ACTUAL)	TOTAL STOREY (ACTUAL)	ALLOWABLE INCREASE	TOTAL ALLOWABLE
			HEIGHT (FT)	HEIGHT (FT)
30'-0"	1	2	75'	2
STAIR LEVEL	TABULAR AREA	SPRINKLER INCREASE (SF)	FRONTAGE INCREASE (SF)	ALLOWABLE AREA PER STORY (SF)
STORY 1	40,000			12,003
				12,003
	TOTAL BUILDING AREA			ALLOWABLE LARGER THAN ACTUAL
				YES
AREA DETERMINATION	Fully Sprinklered, one story	MAXIMUM BUILDING AREA	40,000 SF	

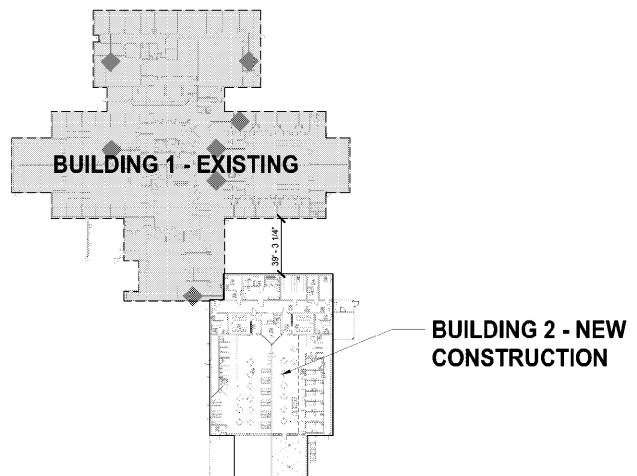
BUILDING DATA

CONSTRUCTION TYPE	II-B
BUILDING ELEMENT	REQUIRED RATING
PRIMARY STRUCTURAL FRAME	0 HRS
EXTERIOR BEARING WALLS	0 HRS
INTERIOR BEARING WALLS	0 HRS
EXTERIOR NONBEARING WALLS AND PARTITIONS	0 HRS
INTERIOR NONBEARING WALLS AND PARTITIONS	0 HRS
FLOOR CONSTRUCTION & SECONDARY MEMBERS	0 HRS
ROOF CONSTRUCTION & SECONDARY MEMBERS	0 HRS
FIRE WALLS	2 HRS
FIRE BARRIERS	1 HR
SHAFT ENCLOSURES (Less than 4-stories)	NA
SHAFT ENCLOSURES (4 or more stories)	NA
EXIT ENCLOSURES (Less than 4-stories)	NA
EXIT ENCLOSURES (4 or more stories)	NA
FIRE PARTITIONS	1 HR
SMOKE BARRIERS	1 HR
SMOKE PARTITIONS	NA
CORRIDORS	1 HR
HORIZONTAL ASSEMBLIES	NA

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

SMOKE COMPARTMENT	OCCUPANT COUNT
1	125
2	68
3	45
4	32

SMOKE COMPARTMENT OCCUPANT COUNT



KEY PLAN - BUILDING 2