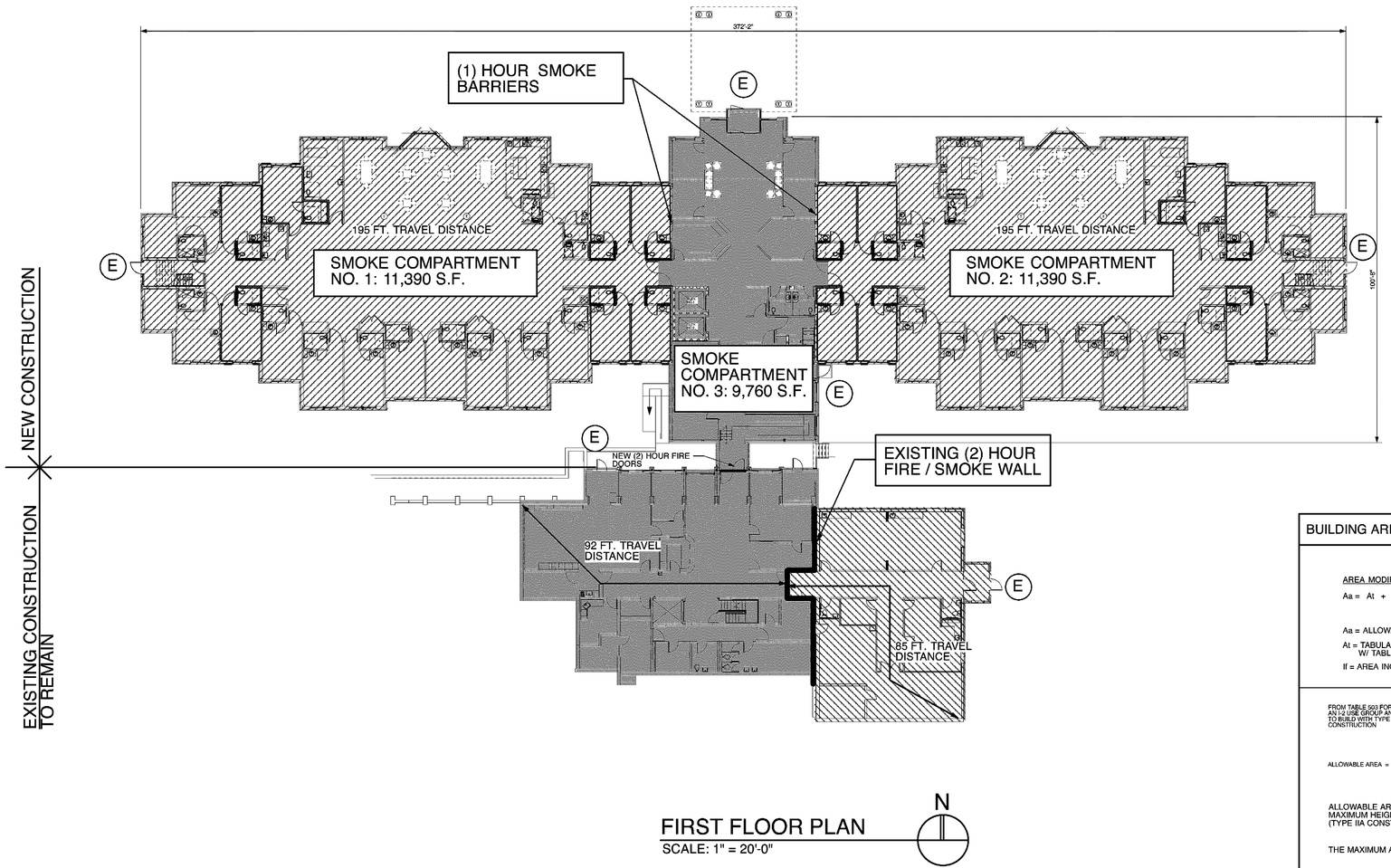
GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL, STATE,OSHA, AND NATIONAL CODES.
2. CONSULT ARCHITECT FOR MEANING OF ANY SYMBOLS OR ABBREVIATIONS NOT DEFINED IN THE CONTRACT DOCUMENTS.
3. THE ARCHITECT SHALL DETERMINE GOVERNING INFORMATION SHOULD CONFLICTING DIMENSIONS, NOTES, OR DETAILS OCCUR BETWEEN CONTRACT DOCUMENTS.
4. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE FROM FINISHED FACE TO FINISHED FACE. NOMINAL THICKNESS DIMENSIONS ARE USED.
5. INTERIOR CEILING AND WALL FINISHES TO MEET CLASS II FIRE HAZARD REQUIREMENTS PER NFPA 101 (1997)
6. ALL PRODUCTS AND MATERIALS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE TRADE STANDARDS.
7. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND OTHERWISE VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS, INCLUDING THE CONTRACTOR'S, SUBCONTRACTOR'S, AND MANUFACTURER'S SHOP DRAWINGS. SHOULD ANY ERROR OR INCONSISTENCY EXIST, THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED THEREBY UNTIL HE SHALL HAVE REPORTED THE SAME TO THE ARCHITECT/ENGINEER, AND SHALL HAVE RECEIVED FROM THE ARCHITECT/ENGINEER CLARIFICATION OR CORRECTION.
8. THE CONTRACTOR SHALL VERIFY SIZES OF ALL OPENINGS, CURBS, BASES, RECESSES, AND ANCHOR BOLT SIZES AND LOCATIONS WITH CERTIFIED DRAWINGS OF EQUIPMENT APPROVED FOR SUBJECT LOCATIONS BEFORE PROCEEDING WITH THE WORK.
9. THE CONTRACTOR SHALL NOT PROCEED WITH DETAILING, FABRICATION, OR CONSTRUCTION OF ANY WORK CONNECTED WITH OR DEPENDENT UPON EQUIPMENT TO BE FURNISHED BY "OWNER" OR "OTHER CONTRACTORS" UNTIL HE HAS RECEIVED CERTIFIED OR APPROVED EQUIPMENT DRAWINGS.
10. PROVIDE TEMPORARY BRACING OR SHORING AS REQUIRED TO INSURE THE STABILITY OF THE NEW AND EXISTING STRUCTURE UNTIL THE PERMANENT FRAMING IS IN PLACE.
11. CONTRACTOR TO PROVIDE NECESSARY BACK-UP MATERIALS FOR FASTENING ALL GRAB BARS, TOILET PAPER HOLDERS, TOWEL DISPENSERS, PANEL BOXES, TOILET ACCESSORIES, HANDRAILS,T.V. SHELF ETC. AS REQUIRED. ALL WOOD BLOCKING SHALL BE FIRE RESISTANT TREATED.
12. MATERIALS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN SPECIFICATIONS AND RECOMMENDATIONS.
13. AFF - IN CONJUNCTION WITH DIMENSIONS ON DRAWINGS, INDICATES MOUNTING HEIGHTS ABOVE FINISHED FLOOR. CONSULT ARCHITECT FOR ANY MOUNTING HEIGHT NOT SHOWN.
14. A.P. INDICATES ACCESS PANELS TO BE SUPPLIED & INSTALLED BY ARCHITECTURAL TRADES. ADDITIONAL ACCESS PANELS NOT SHOWN ON DRAWINGS, HOWEVER, REQUIRED IN PARTITIONS, FLOORS, CEILINGS, OR ROOFS BY MECHANICAL, ELECTRICAL, OR OTHER TRADES SHALL BE SUPPLIED BY THE RESPECTIVE TRADE, APPROVED BY THE ARCHITECT, AND INSTALLED BY ARCHITECTURAL TRADES.
15. OPENINGS AROUND PIPES, DUCTS, ETC. IN RATED FLOORS, WALLS, AND CEILINGS ARE TO BE SEALED WITH FIRE RESISTIVE SEALANT.
16. THE FIRE RESISTANT RATING OF EXISTING CONSTRUCTION IS TO BE MAINTAINED.
17. EXPOSED INSULATION SHALL HAVE A FLAME SPREAD OF 25 OR LESS AND SMOKE DEVELOPMENT OF 450 OR LESS.
18. ALL INTERIOR WALL AND CEILING FINISHES SHALL HAVE SMOKE DEVELOPMENT OF 450 OR LESS AND BE A MINIMUM CLASS II MATERIAL.
19. CONTRACTOR SHALL MAINTAIN AND KEEP IN PLACE ALL REQUIRED MEANS OF EGRESS AND ALL REQUIRED FIRE PROTECTION FEATURES (i.e. FIRE ALARM AND AUTOMATIC SPRINKLER SYSTEMS). PROVIDE DUST PROOF TEMPORARY PARTITION AS SHOWN ON THIS SHEET BETWEEN ALL OCCUPIED AREAS AND THOSE UNDER CONSTRUCTION OR RENOVATION.
20. CLEARANCE FROM ANY FIRE SUPPRESSION SPRINKLER HEADS TO PRIVACY CURTAINS, FREE STANDING PARTITIONS OR ROOM DIVIDERS SHALL BE IN ACCORDANCE WITH SECTION 4-2.5.2 OF NFPA PAMPHLET 13, 1985 EDITION.
21. COORDINATE ALL WORK BEFORE AND DURING CONSTRUCTION WITH ALL ASSOCIATED TRADES. RELOCATION OF CONFLICTING INSTALLED WORK, DUE TO LACK OF COORDINATION BY THE GENERAL CONTRACTOR WILL NOT BE CONSIDERED EXTRA WORK.

SMOKE COMPARTMENT

COMPARTMENT NO.	AREA	MAX. TRAVEL DISTANCE TO SMOKE BARRIER DOOR
1	11,390 SQ.FT.	195 FT.
2	11,390 SQ.FT.	195 FT.
3	9,760 SQ.FT.	92 FT.
4	3,235 SQ.FT.	85 FT.
5	11,390 SQ.FT.	195 FT.
6	8,815 SQ.FT.	98 FT.
7	11,390 SQ.FT.	195 FT.
8	3,645 SQ.FT.	80 FT.
9	3,925 SQ.FT.	83 FT.
10	3,210 SQ.FT.	70 FT.



FIRST FLOOR PLAN
SCALE: 1" = 20'-0"

CODE INFORMATION AND FIRE RESISTIVE CONSTRUCTION REQUIREMENTS

BUILDING CODES:
- MICHIGAN BUILDING CODE 2009 EDITION
- ADA - ICC / ANSI A117.1-2009
- STATE OF MICHIGAN,DEPT OF LABOR "MICHIGAN ENERGY CODE."
- OCCUPATIONAL SAFETY AND HEALTH ACT.
- ALL CODES, STANDARDS, AND ORDINANCES OF BENZIE COUNTY, MICHIGAN
- FEDERAL REGISTER DEPARTMENT OF JUSTICE, "AMERICANS WITH DISABILITIES ACT".
- NFPA 101 (2009 EDITION)
- MDCIS : MINIMUM DESIGN STANDARDS FOR HEALTH CARE FACILITIES IN MICHIGAN 2007 EDITION
- 2007 INTERNATIONAL FIRE CODE

USE GROUP: I-2 (INSTITUTIONAL)

CONSTRUCTION TYPES REQUIRED BY GOVERNING CODES:

OCCUPANCY: LONG TERM CARE NURSING BEDS (78)

(MBC) NEW ADDITION : CONSTRUCTION TYPE - "2A"

(NFPA 101) TYPE II(111) CONSTRUCTION IS REQUIRED AT THE NEW ADDITION & EXISTING BUILDING.

NEW CONSTRUCTION INFORMATION

SMOKE BARRIER WALLS: (1) HOUR RATING PER U.L. NO. U419.

SMOKE BARRIER COMPARTMENT: MAXIMUM SIZE 22,500 S.F.

SMOKE BARRIER TRAVEL DISTANCE: 200 FOOT MAXIMUM TRAVEL DISTANCE TO SMOKE BARRIER DOOR.

CORRIDOR WALLS: SHALL BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE - NO FIRE RATING REQUIRED

BARRIER FREE REQUIRMENTS: MINIMUM OF 50% OF THE NURSING HOME BEDS TO MEET BARRIER FREE STANDARDS.

BUILDING DATA

EXISTING FIRST FLOOR BUILDING AREA:	8,360 S.F.
EXISITNG SECOND FLOOR BUILDING AREA:	14,820 S.F.
NEW FIRST FLOOR BUILDING AREA:	27,370 S.F.
NEW SECOND FLOOR BUILDING AREA:	27,470 S.F.
TOTAL BUILDING AREA:	78,020 S.F.

CASEWORK: ALL CASEWORK AND CABINETRY OPEN TO CORRIDOR SHALL MEET CLASS "B" FLAME SPREAD REQUIREMENTS.

FIRE PROTECTION: THIS BUILDING WILL HAVE A FULL FIRE SPRINKLER SYSTEM WITH QUICK RESPONSE SPRINKLER HEADS THOUGHOUT.

FIRE RESISTANT RATINGS

USE GROUP : I - 2

MICHIGAN BUILDING CODE : CONSTRUCTION TYPE : "2A"

NFPA -101 : CONSTRUCTION TYPE II (111)

LOCATION	DESCRIPTION	REQUIRED FIRE RATING	U.L. DESIGN NO.
EXTERIOR TABLE 601	BEARING WALL	1 HOUR	SEE DRWGS.
	NON BEARING WALL	NO RATING REQUIRED	SEE DRWGS.
INTERIOR TABLE 601	BEARING WALLS	I HOUR	SEE DRWGS.
	NON -BEAR'G WALLS	NO RATING REQUIRED	SEE DRWGS.
	ROOF CONSTRUCTION	1 HOUR ROOF ASSEMBLY	SEE DRWGS.
	ROOF / FLOOR BEAMS	1 HOUR	SEE DRWGS.
	COLUMNS	1 HOUR	SEE DRWGS.
	CORRIDOR WALLS	NO RATING REQUIRED	SEE DRWGS.
	STORAGE ROOM > THAN 100 S.F.	1 HOUR	SEE PARTITION SCHEDULE ON SHEET A11.0
	SOILED UTILITY	1 HOUR	
	WASTE & LINEN COLLECTION ROOM > 100 S.F	1 HOUR	
	SMOKE BARRIER WALL	1 HOUR	
	TRASH ROOM	1 HOUR	
	LABORATORTY	1 HOUR	
	FIRE WALL	N/A	
	CENTRAL LAUNDRY	1 HOUR	
	BOILER ROOM	1 HOUR	

BUILDING AREA MODIFICATION CALCULATION

AREA MODIFICATION : SECTION 506 MBC 2009

$$Aa = At + \left[\frac{At\ If}{100}\right] + \left[\frac{At\ Is}{100}\right]$$

Aa = ALLOWABLE AREA PER FLOOR (SQUARE FOOT)

At = TABULAR AREA PER FLOOR IN ACCORDANCE W/ TABLE 503 (SQUARE FOOT)

If = AREA INCREASE DUE TO FRONTAGE (506.2)

FROM TABLE 503 FOR AN I-2 USE GROUP AND TO BUILD WITH TYPE II A CONSTRUCTION

MAXIMUM ALLOWABLE FRONTAGE INCREASE

MAXIMUM ALLOWABLE SPRINKLER INCREASE

$$\text{ALLOWABLE AREA} = 15{,}000\ \text{S.F.} + \left[\frac{15{,}000 \times 75}{100}\right] + \left[\frac{15{,}000 \times 350}{100}\right]$$

ALLOWABLE AREA PER FLOOR = 56,250 S.F.
MAXIMUM HEIGHT = (3) STORIES ABOVE GRADE (TYPE IIA CONST.)

THE MAXIMUM AREA IN FIRE COMPARTMENT IS 32,540 S.F.

edmund london & associates, inc.
architects & planners
257700 Uniks center drive, suite 610, southfield, michigan 48076 tel: 248-353-6363 fax: 248-353-2520

Benzie County Medical Care Facility - Addition and Renovation
Frankfort, Michigan

code information

ISSUED:
BIDS 06/26/13

DRAWN BY: RZ

APPROVED BY: RZ

JOB NUMBER 3206

SHEET NUMBER A-1.2

KEY DESIGNATION

DETAIL NUMBER — X / X.X — XXXXXX ← DRAWING TITLE; XXXXXXXXXX ← DRAWING SCALE; DETAIL APPEARS ON THIS SHEET NUMBER

SYMBOL LEGEND

- 100A — INDICATES NEW DOOR
- A100 — INDICATES ROOM NUMBER
- MATCH LINE
- 1b — INDICATES PARTITION TYPE - REFERENCED ON FLOOR PLANS AND SCHEDULE ON SHT. A11.0
- SMOKE BARRIER WALL
- A — INDICATES GLAZING TYPE - REFERENCED ON EXTERIOR BUILDING ELEVATIONS AND SCHEDULE ON SHT. A-7.4

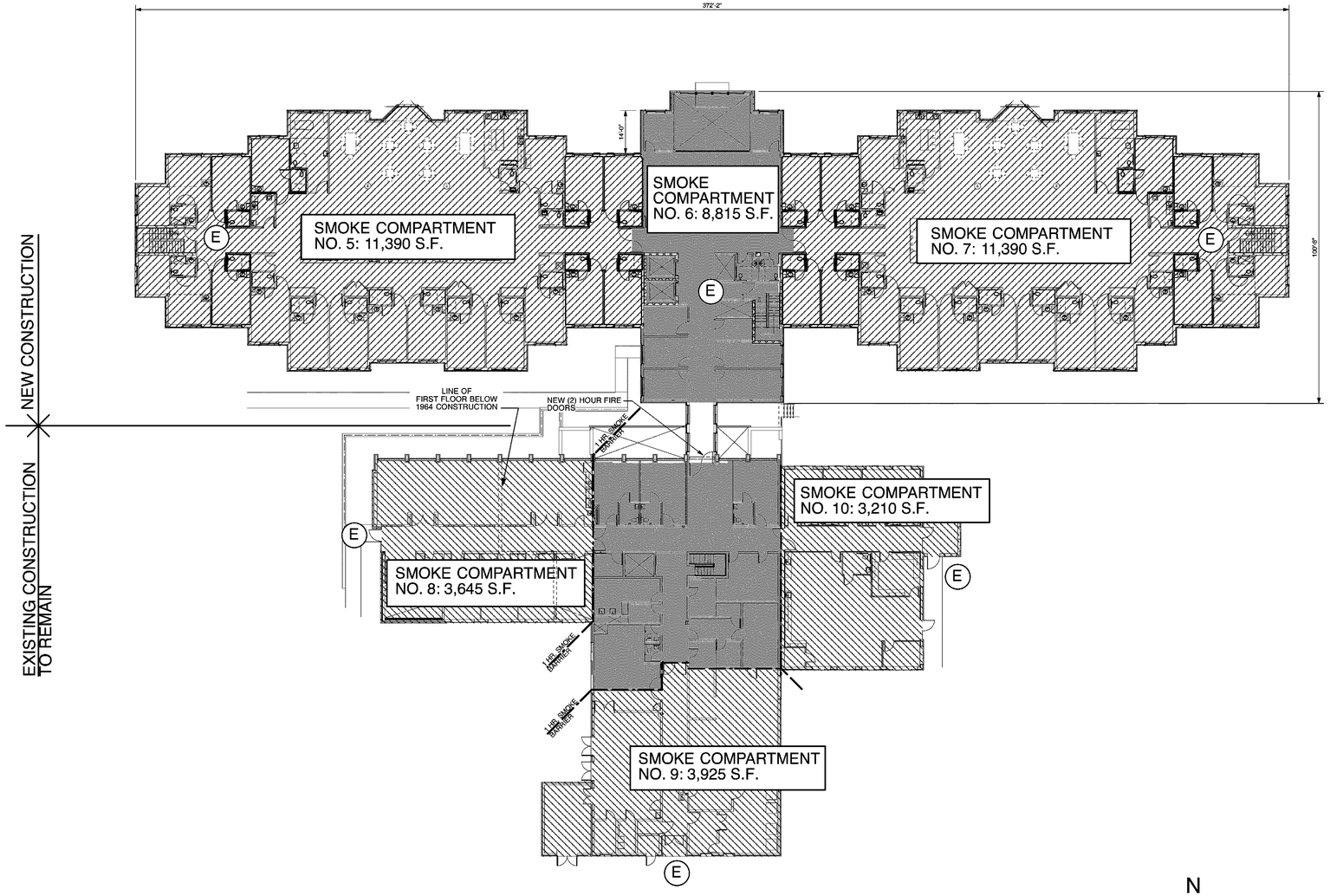
MICHIGAN DEPARTMENT OF COMMUNITY HEALTH
DIVISION OF HEALTH FACILITIES
SQUARE FOOTAGE ANALYSIS
RESIDENT STORAGE SPACE

RM. NUM.	ROOM NAME		AREA
SEE FLOOR PLAN THIS SHT. FOR LOCATIONS	RESIDENT STORAGE ROOMS		975 SF
	10 S.F. REQUIRED FOR EACH LICENSED BED	TOTAL PROVIDED	975 SF
		TOTAL REQ'D	780 SF

SQUARE FOOTAGE ANALYSIS
DAY/ DINING/ ACTIVITY SPACEFOR LONG TERM CARE BEDS

30 S.F. OF FLOOR SPACE PER RESIDENT BED TO BE PROVIDED FOR DAYROOM, DINING, RECREATION AND ACTIVITY PURPOSES (20 S.F. TO BE DEDICATED TO RESIDENT DINING)

RM. NUM.	ROOM NAME	FL. AREA (SQ. FT.)	WIN. AREA (SQ. FT.)	USABLE SQ. FT.
B106	DINING/ACTIVITY ROOM	1,270		
B116	LIVING ROOM	310	172	1,720
B123	LIVING ROOM	310		
C106	DINING/ACTIVITY ROOM	1,270		
C116	LIVING ROOM	310	172	1,720
C123	LIVING ROOM	310		
B206	DINING/ACTIVITY ROOM	1,270		
B216	LIVING ROOM	310	172	1,720
B223	LIVING ROOM	310		
C206	DINING/ACTIVITY ROOM	1,270		
C216	LIVING ROOM	310	172	1,720
C223	LIVING ROOM	310		
		TOTAL PROVIDED		6,800
		TOTAL REQ'D		2,340



SECOND FLOOR PLAN

SCALE: 1" = 20'-0"

edmund london & associates, inc.
architects & planners
23750 civic center drive, suite 610, southfield, michigan 48034 tel: 248-350-4383 fax: 248-350-3520

Benzie County Medical Care Facility - Addition and Renovation
Frankfort, Michigan

code information

ISSUED:
BIDS 06/26/13

DRAWN BY: RZ

APPROVED BY: RZ

JOB NUMBER
3206

SHEET NUMBER
A-1.3

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 1 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 1 - 18 Memory Care Beds / First Floor West - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	1.0	1.2	(1.5)	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	(1.1)	1.2	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	(1.5)	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.5	X	1.1	X	1.5	X	1.2	=	9.5

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F		R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6 X	9.5	=	6

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	(0)	-2	0	0	2	2
Second	-7	-2	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[g]	0(0)[h]	1

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	0	(2)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	2(3)[g]	3(3)[g]	4	(5)
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	0	0		0
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			0	0
7. Vertical Openings	2		2	2
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		5	5	5
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 18	S_2= 17	S_3= 16	S_4= 26

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	(0)	(10)	(0)
2nd story	2	10	2
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

				S_1	S_a	C	YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	18 —	0	= 18	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 17 —	S_b 10	E = 7	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 16 —	S_c 0	P = 16	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 26 —	R 6	G = 20	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.	X		
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.	X		
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.	X		
D.	Fuel-burning space heaters and portable electrical space heaters are not used.	X		
E.	There are no flue-fed incinerators.	X		
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.	X		
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.	X		
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.	X		
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.	X		
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.	X		
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.	X		
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			X

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 2 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 2 - 20 Nursing Beds / First Floor East - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	1.0	1.2	(1.5)	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	(1.1)	1.2	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	(1.5)	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.5	X	1.1	X	1.5	X	1.2	=	9.5

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F		R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6	9.5	=	6

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	(0)	-2	0	0	2	2
Second	-7	-2	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[g]	0(0)[h]	1

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	0	(2)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	2(3)[g]	3(3)[g]	4	(5)
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	0	0		0
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			0	0
7. Vertical Openings	2		2	2
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		5	5	5
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 18	S_2= 17	S_3= 16	S_4= 26

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	(0)	(10)	(0)
2nd story	2	10	2
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

							YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	S_1 18	— S_a 10	= C 18	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 17	— S_b 10	= E 7	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 16	— S_c 0	= P 16	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 26	— R 6	= G 20	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 3 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 3 No Patient Beds / First Floor Middle - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	(1.0)	1.2	1.5	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	(1.1)	1.2	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	(1.0)	1.1	1.2	1.5	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.0	X	1.1	X	1.0	X	1.2	=	4.2

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6 X	4.2	=	3

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	(0)	-2	0	0	2	2
Second	-7	-2	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[h]	0(0)[h]	1

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	0	(2)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	2(3)[g]	3(3)[g]	4	(5)
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	0	0		0
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			0	0
7. Vertical Openings	2		2	2
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		5	5	5
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 18	S_2= 17	S_3= 16	S_4= 26

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	(0)	(10)	(0)
2nd story	2	10	2
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

							YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	S_1 18	— S_a 0	= C 18	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 17	— S_b 10	= E 7	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 16	— S_c 0	= P 16	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 26	— R 3	= G 23	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.
* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 4 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 4 No Patient Beds / First Floor Southeast - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	(1.0)	1.2	1.5	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	(1.1)	1.2	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	(1.0)	1.1	1.2	1.5	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.0	X	1.1	X	1.0	X	1.2	=	4.2

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6 X	4.2	=	3

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	(2)	2
Second	-7	-2	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[h]	0(0)[h]	(1)

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	(0)	2(0)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	(2(3))[g]	3(3)[g]	4	5
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.
[b] Use (0) where parameter 10 is -8.
[c] Use (0) on floor with fewer than 31 patients (existing buildings only).
[d] Use (0) where parameter 4 is -10.
[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.
[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.
[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	0	2		2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			1	1
7. Vertical Openings	2		0	0
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		2	2	2
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 18	S_2= 16	S_3= 12	S_4= 24

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	(0)	(10)	(0)
2nd story	2	10	2
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

				S_1	S_a	C	YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	18	— 0	= 18	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 16	S_b — 10	E = 6	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 12	S_c — 0	P = 12	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 24	R — 3	G = 21	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 5 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 5 - 20 Nursing Beds / Second Floor West - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	1.0	1.2	(1.5)	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	(1.2)	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	(1.5)	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.5	X	1.2	X	1.5	X	1.2	=	10.4

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6 X	10.4	=	7

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	2	2
Second	-7	(-2)	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[g]	0(0)[h]	1

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	0	(2(0))[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	(0)	1	5
11. Manual Fire Alarm	No Manual Fire Alarm	Manual Fire Alarm			
		W/O F.D. Conn.	W/F.D. Conn.		
	-4	1	(2)		
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	2(3)[g]	3(3)[g]	4	(5)
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	-2	-2		-2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			0	0
7. Vertical Openings	2		2	2
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			0	0
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		5	5	5
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 16	S_2= 15	S_3= 15	S_4= 23

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	0	10	0
2nd story	(2)	(10)	(2)
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

				S_1		S_a		C	YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	16	—	2	=	14	X	
				S_2		S_b		E		
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	15	—	10	=	5	X	
				S_3		S_c		P		
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	15	—	2	=	13	X	
				S_4		R		G		
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	23	—	7	=	16	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.
* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 6 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 6 - 3 Nursing Beds / Second Floor Middle - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	(1.0)	1.2	1.5	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	(1.2)	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	(1.5)	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.0	X	1.2	X	1.5	X	1.2	=	6.9

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6	X 6.9	=	5

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	2	2
Second	-7	(-2)	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[h]	0(0)[h]	1

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	0	(2(0)[e])	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	(0)	1	5
11. Manual Fire Alarm	No Manual Fire Alarm	Manual Fire Alarm			
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	2(3)[g]	3(3)[g]	4	(5)
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	-2	-2		-2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			0	0
7. Vertical Openings	2		2	2
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			0	0
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		5	5	5
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 16	S_2= 15	S_3= 15	S_4= 23

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	0	10	0
2nd story	(2)	(10)	(2)
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

							YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	S_1 16	— S_a 2	= C 14	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 15	— S_b 10	= E 5	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 15	— S_c 2	= P 13	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 23	— R 5	= G 18	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1. [X] All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

2. [ ] All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies

3. [ ] One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 7 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 7 - 20 Nursing Beds / Second Floor East - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	1.0	1.2	(1.5)	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	(1.2)	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	(1.5)	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.5	X	1.2	X	1.5	X	1.2	=	10.4

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F		R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6	X 10.4	=	7

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	2	2
Second	-7	(-2)	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A			
	-5(0)[f]	0(3)[f]	(3)			
3. Interior Finish (Rooms)	Class C	Class B	Class A			
	-3(1)[f]	1(3)[f]	(3)			
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour		
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]		
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure		
	-10	(0)	1(0)[d]	2(0)[d]		

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c]	(0)[h]	0(0)[h]	1

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	0	(2(0)[e])	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	(0)	1	5
11. Manual Fire Alarm	No Manual Fire Alarm	Manual Fire Alarm			
		W/O F.D. Conn.	W/F.D. Conn.		
	-4	1	(2)		
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	2(3)[g]	3(3)[g]	4	(5)
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	-2	-2		-2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			0	0
7. Vertical Openings	2		2	2
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			0	0
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		5	5	5
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 16	S_2= 15	S_3= 15	S_4= 23

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	0	10	0
2nd story	(2)	(10)	(2)
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

				S_1	S_a	C	YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	16 —	2	= 14	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 15 —	S_b 10	E = 5	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 15 —	S_c 2	P = 13	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 23 —	R 7	G = 16	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 8 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 8 - No Patient Beds / Second Floor Southeast - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	(1.0)	1.2	1.5	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	(1.2)	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	(1.0)	1.1	1.2	1.5	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.0	X	1.2	X	1.0	X	1.2	=	4.6

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6	X 4.6	=	3

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	2	2
Second	-7	(-2)	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[h]	0(0)[h]	(1)

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	(0)	2(0)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	(2(3))[g]	3(3)[g]	4	5
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	-2	-2		-2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			1	1
7. Vertical Openings	0		0	0
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		3	3	3
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 14	S_2= 13	S_3= 13	S_4= 21

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	0	10	0
2nd story	(2)	(10)	(2)
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

							YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	S_1 14	— S_a 2	= C 12	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 13	— S_b 10	= E 3	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 13	— S_c 2	= P 11	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 21	— R 3	= G 18	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 9 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 9 - No Patient Beds / Second Floor South - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	(1.0)	1.2	1.5	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	(1.2)	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	(1.0)	1.1	1.2	1.5	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.0	X	1.2	X	1.0	X	1.2	=	4.6

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6 X	4.6	=	3

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	2	2
Second	-7	(-2)	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[h]	0(0)[h]	(1)

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	(0)	2(0)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	(2(3))[g]	3(3)[g]	4	5
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	-2	-2		-2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			1	1
7. Vertical Openings	0		0	0
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		3	3	3
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 14	S_2= 13	S_3= 13	S_4= 21

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	0	10	0
2nd story	(2)	(10)	(2)
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

							YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	S_1 14	— S_a 2	= C 12	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 13	— S_b 10	= E 3	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 13	— S_c 2	= P 11	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 21	— R 3	= G 18	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.

FIRE SAFETY EVALUATION SYSTEM
HEALTH CARE FACILITIES

(NFPA 101A, "Guide on Alternative Approaches to Life Safety" 2013 Edition)

Complete the following worksheets for each fire/smoke zone*.
Where conditions are the same in several zones, one set of worksheets can be used for those zones.

* Fire/smoke zone is a space separated from all other spaces by floors, horizontal exits, or smoke barriers

Step 1 — Complete Cover Sheet using Worksheet 4.7.1.

WORKSHEET 4.7.1 – COVER SHEET

ZONE 10 OF 10 ZONES

NAME OF FACILITY	ADDRESS OF FACILITY		
The Maples: Benzie County Medical Care Facility	210 Maple Ave., Frankfort, Michigan 49635		
ZONE(S) EVALUATED			
Smoke Compartment No. 10 - 2 Nursing Beds / Second Floor Southeast - Existing			
PROVIDER/VENDOR NO.	DATE OF SURVEY		
SURVEYOR SIGNATURE	TITLE	OFFICE	DATE
SURVEYOR ID			
FIRE AUTHORITY SIGNATURE	TITLE	OFFICE	DATE

ADDITIONAL COMMENTS:

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Step 2 — Determine Occupancy Risk Parameter Factors using Worksheet 4.7.2.
For each Risk Parameter in Worksheet 7.2, select and circle the appropriate risk factor value.
Choose only one for each of the five Risk Parameters.

WORKSHEET 4.7.2 – OCCUPANCY RISK PARAMETER FACTORS

Risk Parameters	Risk Factor Values				
1. Patient Mobility *(M)*	Mobility Status	Mobile	Limited Mobility	Not Mobile	Not Movable
	Risk Factor	1.0	1.6	(3.2)	4.5
2. Patient Density *(D)*	No. of Patients	1–5	6–10	11–30	>30
	Risk Factor	(1.0)	1.2	1.5	2.0
3. Zone Location *(L)*	Floor	1st	2nd or 3rd	4th to 6th	7th and Above	Basements
	Risk Factor	1.1	(1.2)	1.4	1.6	1.6
4. Ratio of Patients to Attendants *(T)*	Patients / Attendant	1–2 / 1	3–5 / 1	6–10 / 1	>10 / 1	One or More / None
	Risk Factor	1.0	1.1	1.2	(1.5)	4.0*
5. Patient Average Age *(A)*	Age	Under 65 Years and Over 1 Year		65 Years and Over or 1 Year and Younger		
	Risk Factor	1.0		(1.2)		

*A risk factor of 4.0 is charged to any zone that houses patients without any staff in immediate attendance.

Step 3 — Compute Occupancy Risk Factor (F) using Worksheet 4.7.3.
(1) Transfer the circled risk factor values from Worksheet 4.7.2 to the corresponding blocks in Worksheet 4.7.3.
(2) Compute F by multiplying the risk factor values as indicated in Worksheet 4.7.3.

WORKSHEET 4.7.3 - OCCUPANCY RISK FACTOR CALCULATION

	M		D		L		T		A		F
OCCUPANCY RISK	3.2	X	1.0	X	1.2	X	1.5	X	1.2	=	6.9

Step 4 — Compute Adjusted Building Status (R) - Use Worksheets 4.7.4 or 4.7.5.
(1) If building is classified as "NEW" use Worksheet 4.7.4. If building is classified as "Existing" use Worksheet 4.7.5.
(2) Transfer the value of F from Worksheet 4.7.3 to Worksheets 4.7.4 or 4.7.5, as appropriate. Calculate R.
(3) Transfer R to the block labeled R in Worksheet 4.7.9.
(4) In Worksheets 4.7.4 and 4.7.5, results are always rounded up (i.e., 3.2 is rounded to 4.0).

WORKSHEET 4.7.4 ADJUSTED OCCUPANCY RISK FACTOR (NEW)

F	R

WORKSHEET 4.7.5 ADJUSTED OCCUPANCY RISK FACTOR (EXISTING)

	F		R
0.6 X	6.9	=	5

Step 5 — Determine Safety Parameter Values using Worksheet 4.7.6.

(1) Select and circle the safety value for each safety parameter that best describes the conditions in the zone.
(2) Choose only one value for each of the 13 parameters.
(3) If two or more appear to apply, choose the one with the lowest point value.

WORKSHEET 4.7.6 – SAFETY PARAMETER VALUES

Safety Parameters	Parameters Values						
1. Construction	Combustible Types III, IV, and V				Non-Combustible Types I and II		
Floor or Zone	000	111	200	211, 2HH	000	111	222, 322, 442
First	-2	0	-2	0	0	2	2
Second	-7	(-2)	-4	-2	-2	2	4
Third	-9	-7	-9	-7	-7	2	4
4th and Above	-13	-7	-13	-7	-9	-7	4

2. Interior Finish (Corridors and Exits)	Class C	Class B	Class A		
	-5(0)[f]	0(3)[f]	(3)		
3. Interior Finish (Rooms)	Class C	Class B	Class A		
	-3(1)[f]	1(3)[f]	(3)		
4. Corridor Partitions/Walls	None or Incomplete	<1/2 hour	>1/2 to <1 hour	≥1 hour	
	-10(0)[a]	(0)	1(0)[a]	2(0)[a]	
5. Doors to Corridor	No Door	<20 min FPR	≥ 20 min FPR	≥ 20 min FPR and Auto Closure	
	-10	(0)	1(0)[d]	2(0)[d]	

6. Zone Dimensions	Dead End			No Dead Ends >30 ft. and Zone Length Is		
	>100 ft.	>50 ft. to 100 ft.	30 ft. to 50 ft.	>150 ft.	100 ft. to 150 ft.	<100 ft.
	-6(0)[b]	-4(0)[b]	-2(0)[b]	-2(0)[c] (0)[h]	0(0)[h]	(1)

7. Vertical Openings	Open 4 or More Floors	Open 2 or 3 Floors	Enclosed with Indicated Fire Resistance		
			<1 hr.	≥1 hr. to <2 hr.	≥2 hr.
	-14	-10	(0)	2(0)[e]	3(0)[e]
8. Hazardous Areas	Double Deficiency		Single Deficiency		No Deficiencies
	In Zone	Outside Zone	In Zone	In Adjacent Zone	
	-11	-5	-6	-2	(0)
9. Smoke Control	No Control	Smoke Barrier Serves Zone	Mechanically Assisted Systems by Zone		
	-5(0)[c]	(0)	3		
10. Emergency Movement Routes	<2 Routes	Multiple Routes			Direct Exit(s)
	-8	Deficient	W/O Horizontal Exit(s)	Horizontal Exit(s)	
		-2	0	(1)	5
11. Manual Fire Alarm	No Manual Fire Alarm		Manual Fire Alarm		
			W/O F.D. Conn.	W/F.D. Conn.	
	-4		1	(2)	
12. Smoke Detection and Alarm	None	Corridor Only	Rooms Only	Corridor and Habit. Spaces	Total Spaces in Zone
	0(3)[g]	(2(3))[g]	3(3)[g]	4	5
13. Automatic Sprinklers	None	Corridor and Habit. Space	Entire Building		
	0	8	(10)		

[a] Use (0) where parameter 5 is -10.

[b] Use (0) where parameter 10 is -8.

[c] Use (0) on floor with fewer than 31 patients (existing buildings only).

[d] Use (0) where parameter 4 is -10.

[e] Use (0) where Parameter 1 is based on first floor zone or on an unprotected type of construction (columns marked "000" or "200").
For SI Units: 1 ft.² = 0.3048 m²

[f] Use ( ) if the area of Class B or C interior finish in the corridor and exit or room is protected by automatic sprinklers and Parameter 13 is 0; use ( ) if the room with existing Class C interior finish is protected by automatic sprinklers, Parameter 4 is greater than or equal to 1, and Parameter 13 is 0.

[g] Use this value in addition to Parameter 13 if the entire zone is protected with quick-response automatic sprinklers.

[h] Use (0) where zone area ≤ 22,500 ft.² and distance from any point to reach a door in smoke barrier is ≤ 200 ft.

Step 6 — Compute Individual Safety Evaluations using Worksheet 4.7.7.

(1) Transfer each of the 13 circled Safety Parameter Values from Worksheet 4.7.6 to every unshaded block in the line with the corresponding Safety Parameter in Worksheet 4.7.7. For Safety Parameter 13 (Sprinklers) the value entered in the People Movement Safety column is recorded in Worksheet 4.7.7 as 1/2 the corresponding value circled in Worksheet 4.7.6.

(2) Add the four columns, keeping in mind that any negative numbers deduct.

(3) Transfer the resulting total values for S1, S2, S3, S4 to blocks labeled S1, S2, S3, S4 in Worksheet 4.7.9 on page 4 of this sheet.

WORKSHEET 4.7.7 - INDIVIDUAL SAFETY EVALUATIONS

Safety Parameters	Containment Safety (S_1)	Extinguishment Safety (S_2)	People Movement Safety (S_3)	General Safety (S_4)
1. Construction	-2	-2		-2
2. Interior Finish (Corr. and Exit)	3		3	3
3. Interior Finish (Rooms)	3			3
4. Corridor Partitions and Walls	0			0
5. Doors to Corridor	0		0	0
6. Zone Dimensions			1	1
7. Vertical Openings	0		0	0
8. Hazardous Areas	0	0		0
9. Smoke Control			0	0
10. Emergency Movement Routes			1	1
11. Manual Fire Alarm		2		2
12. Smoke Detection and Alarm		3	3	3
13. Automatic Sprinklers	10	10	10 ÷ 2 = 5	10
Total Value	S_1= 14	S_2= 13	S_3= 13	S_4= 21

Step 7 — Determine Mandatory Safety Requirement values using Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(1) Using the facility type (i.e., Hospital or Nursing Home), classification (i.e., New, Existing or Rehabilitated) and the floor where the zone is located, circle the appropriate value in each of the three columns found in Worksheet 4.7.8A, 4.7.8B, or 4.7.8C.

(2) Transfer the three circled values to the blocks marked S_a, S_b, and S_c in Worksheet 4.7.9.

(3) The Mandatory Safety Requirement value for basements are based on the distance of the basement level from the closest level of discharge (See 4.6.1.2 and 4.6.1.3).

WORKSHEET 4.7.8A - MANDATORY SAFETY REQUIREMENTS – NEW HOSPITALS, EXISTING HOSPITALS OR NEW NURSING HOMES

Zone Location	Containment (S_a)		Extinguishment (S_b)		People Movement (S_C)	
	New	Existing	New	Existing	New	Existing
1st story	11	5	15(12)[a]	4	8(5)[a]	1
2nd or 3rd story[b]	15	9	17(14)[a]	6	10(7)[a]	3
4th story or higher, but not high rise	18	9	19(16)[a]	6	11(8)[a]	3
High rise	18	17	19(16)[a]	16	11(8)[a]	7

a. Use ( ) in zones that do not contain patient sleeping rooms.

b. For a 2nd story zone location in a sprinklered EXISTING hospital, as an alternative to the mandatory safety requirement values set specified in the table, the following mandatory values *set* shall be permitted to be used: Sa=7, Sb=10, and Sc=7

WORKSHEET 4.7.8B - MANDATORY SAFETY REQUIREMENTS – EXISTING NURSING HOMES

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	0	10	0
2nd story	(2)	(10)	(2)
3rd story	6	14	2
4th story or higher	8	16	2

WORKSHEET 4.7.8C - MANDATORY SAFETY REQUIREMENTS – MAJOR REHABILITATION IN NONSPRINKLERED EXISTING HOSPITALS

Zone Location	Containment (Sa)	Extinguishment (Sb)	People Movement (Sc)
1st story	13	17(14)*	8(5)*
2nd or 3rd story	17	19(16)*	10(7)*
4th story or higher	18	19(16)*	11(8)*

*Use ( ) in zones that do not contain patient sleeping rooms.

Step 8 — Identify Zone Fire Safety Equivalency using Worksheet 4.7.9.

(1) Transfer the three circled values from Worksheet 4.7.8A, 4.7.8B, or 4.7.8C to the blocks marked Sa, Sb, and Sc in Worksheet 4.7.9.

(2) For each row check "Yes" if the value in the answer block is zero or greater. Check "No" if the value in the answer block is a negative number.

WORKSHEET 4.7.9 - ZONE FIRE SAFETY EQUIVALENCY EVALUATION

							YES	NO
Containment Safety (S_1)	minus	Mandatory Containment (Sa)	≥ 0	S_1 14	— S_a 2	= C 12	X	
Extinguishment Safety (S_2)	minus	Mandatory Extinguishment (Sb)	≥ 0	S_2 13	— S_b 10	= E 3	X	
People Movement Safety (S_3)	minus	Mandatory People Movement (Sc)	≥0	S_3 13	— S_c 2	= P 11	X	
General Safety (S_4)	minus	Occupancy Risk (R)	≥ 0	S_4 21	— R 5	= G 16	X	

Step 9 — Evaluate other considerations not previously addressed using Worksheet 4.7.10.
Complete one copy of this separate worksheet for each facility.
For each consideration, select and mark the appropriate column.

WORKSHEET 4.7.10 FACILITY FIRE SAFETY REQUIREMENTS WORKSHEET

		Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 9.1.			X
B.	In new facilities only, life-support systems, alarms, emergency communication systems, and illumination of generator set locations are powered as prescribed by 18.5.1.2 and 18.5.1.3.			
C.	Heating and air conditioning systems conform with the air conditioning, heating, and ventilating systems requirements within Section 9.2, except for enclosure of vertical openings, which have been considered in Safety Parameter 7 of Worksheet 4.7.6.			X
D.	Fuel-burning space heaters and portable electrical space heaters are not used.			X
E.	There are no flue-fed incinerators.			
F.	An evacuation plan is provided and fire drills conducted in accordance with 18.7.1/18.7.2 and 19.7.1/19.7.2.			X
G.	Smoking regulations have been adopted and implemented in accordance with 18.7.4 and 19.7.4.			X
H.	Draperies, upholstered furniture, mattresses, furnishings, and decoration combustibility is limited in accordance with 18.7.5 and 19.7.5.			
I.	Fire extinguishers are provided in accordance with the requirements of 18.3.5.12 and 19.3.5.12.			X
J.	Exit signs are provided in accordance with the requirements of 18.2.10.1 and 19.2.10.			
K.	Emergency lighting is provided in accordance with 18.2.9.1 or 19.2.9.1.			
L.	Standpipes are provided in all new high rise buildings as required by 18.4.2.			

Step 10 — Determine the equivalency Conclusion to determine if the level of life safety is at least equivalent to that prescribed by the Life Safety Code using Worksheet 4.7.11.

WORKSHEET 4.7.11- CONCLUSIONS

1.	[X]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all applicable considerations in Worksheet 4.7.10 are marked as "Met". The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.
2.	[ ]	All of the checks in Worksheet 4.7.9 are in the "Yes" column and all considerations in Worksheet 4.7.10 marked as "Not Met" have been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is at least equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies
3.	[ ]	One or more of the checks on Worksheet 4.7.9 are in the "No" column or any considerations in Worksheet 4.7.10 marked as "Not Met" have NOT been evaluated and mitigated to the satisfaction of the AHJ. The level of safety is not shown by this system to be equivalent to that prescribed by NFPA 101, *Life Safety Code*, for health care occupancies.