Fire and Life Safety Summary (FLSS)

A Fire and Life Safety Summary (FLSS) is required per OSSC 106.1.1 for buildings with complex fire and life safety systems when the life safety plans examiner determines it is necessary to clarify how the building will conform to building codes. Examples of buildings where Fire & Life Safety Summaries are required include, among others: hospitals, malls, large assembly buildings, high-rise buildings and buildings with smoke control systems.

The purpose of the FLSS is to provide a clear and understandable explanation of the fire and life safety systems in a building, using floor plans, diagrams and simple non-technical language. It is a useful coordination tool and reference for architects, engineers and consultants during the design process. It is vital to the review of separate Mechanical Permit and Fire Sprinkler and Alarm Permits. The FLSS is used by the general contractor, subcontractors, architects, third-party inspectors, and building and fire inspectors during construction, testing and commissioning. It is also a valuable reference for those involved in the ongoing maintenance and future alterations of the building, including the building owner, facilities manager, fire inspector, and future architects, contractors, plan reviewers and building inspectors.

The FLSS is to be produced in 8-1/2x11 booklet format (e.g., 3-ring binder, etc.). One copy is required with the initial Building Permit submittal package and seven copies are required after the review is complete and the Building Permit is ready to issue. A revision to the construction drawings that is submitted after the Building Permit is issued must include the corresponding revision for the FLSS if the revision significantly changes the intent of the FLSS.

Outlined below are the four elements of the FLSS:

1. Narrative

Describe the construction and systems listed below using clear, non-technical narrative text. Use a numbering system or outline format to facilitate correspondence:

A. Team Directory

- ❑ Owner
- ❑ Architect
- ❑ Engineers
- ❑ Consultants
- ❑ Contractor

B. Building Summary

- ❑ Site location
- ❑ Uses
- ❑ Occupancy classifications
- ❑ Height
- ❑ Number of stories
- ❑ Structural system
- ❑ Type of construction
- ❑ Floor areas and total building area
- ❑ Number of dwelling units
- ❑ Other

C. Hourly Fire-Resistive Construction Requirements

- ❑ Structural frame
- ❑ Bearing walls
- ❑ Floors
- ❑ Roofs
- ❑ Exterior non-bearing walls
- ❑ Exterior openings

D. Hourly Fire-Resistive Separation Requirements

- ❑ Corridors
- ❑ Occupancy separations (or indicate nonseparated uses)
- ❑ Stair enclosures
- ❑ Shafts
- ❑ Elevator lobbies
- ❑ Horizontal exits
- ❑ Other

E. Exit Systems

- ❑ Travel distance
- ❑ Common path of egress travel
- ❑ Occupant loads
- ❑ Number of exits required
- ❑ Exit widths
- ❑ Corridors
- ❑ Exit door locks, latches and electric locks
- ❑ Automatic-closing doors and doors with hold-open devices
- ❑ Horizontal exits
- ❑ Smokeproof enclosures
- ❑ Stair enclosures
- ❑ Exit passageways
- ❑ Exit discharge to public way
- ❑ Exterior balconies
- ❑ Exterior stairs
- ❑ Exit courts
- ❑ Illuminated exit signs
- ❑ Egress lighting on emergency power
- ❑ Other
- ❑ System testing methods and testing criteria

F. Emergency Power and Standby Power Systems

- ❑ Generator size
- ❑ Location
- ❑ Type of fuel
- ❑ Size and location of fuel tank
- ❑ Method and location of fuel refilling
- ❑ Time duration capacity
- ❑ Time to transfer power
- ❑ List of systems connected to the emergency power supply
- ❑ Systems testing methods and testing criteria

G. Mechanical (HVAC) Systems

- ❑ Outside air ventilation
- ❑ Heating and cooling
- ❑ Environmental air exhaust and make-up air
- ❑ Subduct systems
- ❑ Fire and smoke damper locations
- ❑ Smokeproof exit enclosure pressurization
- ❑ Elevator pressurization
- ❑ Smoke control systems
- ❑ Parking garage exhaust
- ❑ HVAC systems testing methods and testing criteria

H. Fire Command Center

- ❑ Voice/alarm
- ❑ Public address
- ❑ Fire department communications
- ❑ Annunciator
- ❑ Fire-fighter's control panel
- ❑ Stairway lock controls
- ❑ Display panels for sprinklers, emergency power and fire pump

I. Automatic Sprinkler System

- ❑ Locations and types of sprinklers
- ❑ Secondary water supply location and sizing
- ❑ Fire pump location and sizing
- ❑ Fire department connection locations
- ❑ Standpipe types and locations
- ❑ Sprinkler systems testing methods and testing criteria

J. Fire Alarm System

- ❑ Audible alarms locations
- ❑ Visual alarms locations
- ❑ Voice/alarm communications
- ❑ Manual station locations
- ❑ Smoke detector types and locations
- ❑ Smoke alarm types and locations
- ❑ Alarm system testing methods and testing criteria

K. For existing buildings entering into a Phased Life Safety Improvement Agreement between the building owner and the city:

- ❑ A schedule of implementation of fire and life safety improvements with dates and the corresponding improvements
- ❑ A statement by the architect disclaiming responsibility for implementation of future phases of the improvements

L. A separate Occupancy Safety During Construction Plan may be required for alterations to existing buildings that will remain occupied during construction.

2. Plans

Site Plan and Floor Plans of each unique floor that are legible, black and white, drawn to a recognizable scale, and contain the information listed below. 11x17 inch fold-out sheets bound into the booklet are preferred. Larger plans may be folded and inserted into a pocket of the booklet for buildings with footprints too large to be legible on 11x17 inch sheets:

A. Physical Elements

- ❑ Walls and columns
- ❑ Changes of elevation, projections and balconies, etc.
- ❑ Windows and doors with door swings
- ❑ Stairs and ramps
- ❑ Other

B. Words and Symbols

- ❑ North arrow and drawing scale
- ❑ Use of each space
- ❑ Where a room or space may be large enough to require additional exits:
  - ❑ Use of each space
  - ❑ Floor area in square feet
  - ❑ Floor area per occupant
  - ❑ Total number of occupants
  - ❑ Exit width required and provided at each exit
  - ❑ Illuminated exit signs
- ❑ Exit discharge and path to a public rights-of-way
- ❑ Where distances may be great enough to require additional exits:
  - ❑ Common path of egress travel length
  - ❑ Travel distance length
  - ❑ Exit separation length
- ❑ Fire command center location and size
- ❑ Emergency power generator, emergency generator fuel tank and fueling locations
- ❑ Secondary water supply and fire pump locations
- ❑ Fire-rated walls indicated by a unique line-type or poche symbol and a corresponding legend identifying the meaning of each symbol. Note that the requirements for a 1-hour wall separating dwelling units has different requirements from a 1-hour wall at an occupancy separation, so one symbol for a "1-hour wall" is not sufficient. In this case, two symbols would be necessary: "1-hour fire partition" and "1-hour fire barrier". Poche graphics should be on one side of the wall, rather than directly on top of it, so openings in walls remain visible:
  - ❑ Corridors
  - ❑ Occupancy separations
  - ❑ Area fire walls
  - ❑ Exit enclosures
  - ❑ Shafts
  - ❑ Horizontal exits
  - ❑ Other

C. A Building Section, in addition to the Floor Plans, may be necessary to show complicated fire separations such as in atriums, multi-level assembly spaces, fire walls, etc.

3. Emergency Systems Initiation Devices and Responses

Describe the fire/life safety initiation devices and response systems and how they interact. Include a complete list of all components that could put the building into alarm mode, including the coverage or generic location for each and a list of the associated responses. The description can be narrative text, but an initiation-response diagram or matrix is clearer. Distinguish between initiation sources that put the building into alarm mode and activate a wide range of responses, and other initiation sources such as trouble signals or dwelling unit smoke detectors that have a more limited response. The hypothetical example below shows three different levels of response, and describes the systems without technical jargon or use of proprietary products. This example is over-simplified and is only intended to show the types of information to include. A complete fire/life safety initiation and response systems description will include many more features and variables:

Initiation	Response
Sprinkler water flow	Audible alarms sound
Smoke detector (specify type/location)	Visual alarms activate
Alarm pull station	Annunciation to main fire panel
(Others)	Annunciation at off-site reporting station
	Magnetic hold-open doors release
	Automatic-closing doors close
	Smoke and fire dampers close
	Stairway pressurization fans energize
	Elevator pressurization fans energize
	Recall elevators
Initiation	**Response**
Sprinkler trouble signal	Annunciation to main fire panel
Alarm/detection trouble signal	Annunciation at off-site reporting station
Duct smoke detector	
Initiation	**Response**
Dwelling-unit smoke alarm	Local alarm only
	Annunciation at main lobby
	Annunciation at off-site reporting station

4. Appeals

A. List each Appeal that has been granted by Appeal date, Case number, Appeal ID number, Appeal Item number, and a one- or two-sentence description with the code requirement and the alternative proposed. For example:

Index of Appeals

12/11/03 B-003 ID# 346 Item #1

Elevator pressurization in lieu of elevator lobbies.

3/10/04 B-007 ID# 552 Item #1

Van-accessible parking space access aisle located on driver side of parking space.

B. Include a copy of the on-line results of each granted appeal following the Index of Appeals.

Information is subject to change.