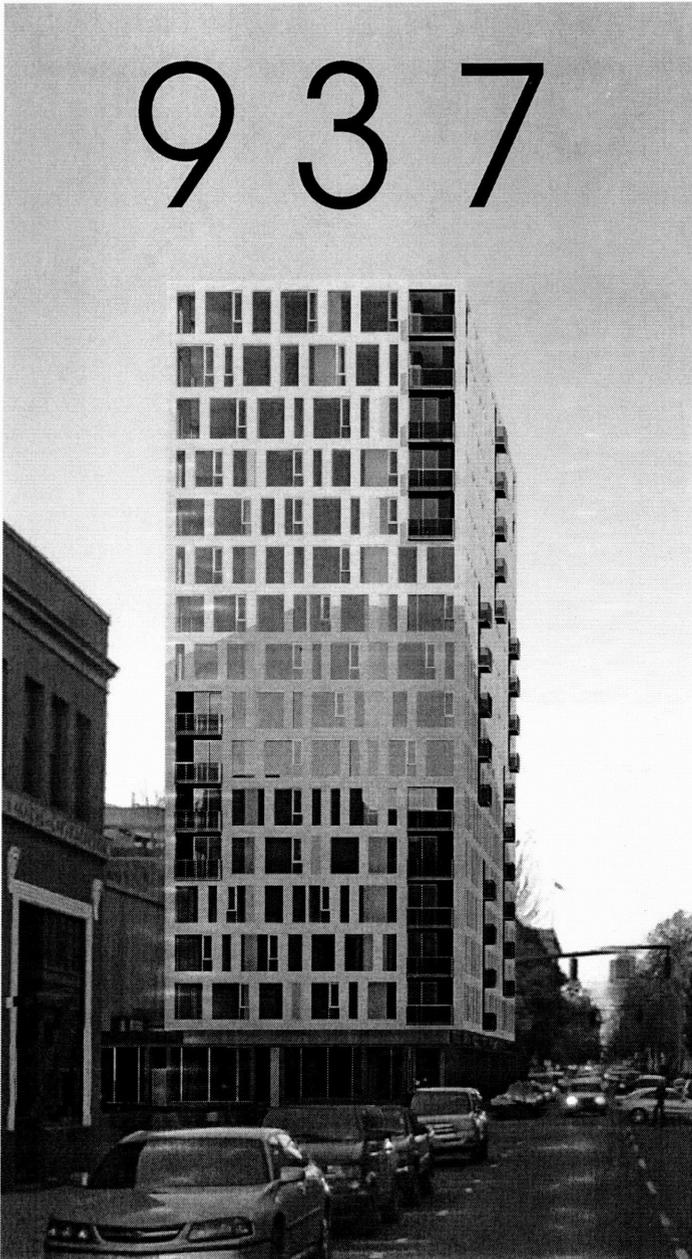


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condominiums

00-161221-00

Portland, Oregon

### Fire Life Safety Summary

January 5, 2007

937 Group, LLC  
ANKROM MOISAN ASSOCIATED ARCHITECTS  
HOLST ARCHITECTURE  
PROJECT NO. 054225

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**937 Condominiums  
937 NW Glisan Street  
FIRE AND LIFE SAFETY SUMMARY**

May 23, 2006  
*Revised 7/27/06*  
*Replaced 1/5/07*

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**I. NARRATIVE**

**A. Team Directory**

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CITY OF PORTLAND

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## **B. Building Summary**

The 937 Condominium project is bounded by NW Glisan Street, NW 9<sup>th</sup> and NW 10<sup>th</sup> Avenues. The one-story building podium occupies the southern half of the block. The main 16 story high-rise building occupies the southern portion of the first floor podium. Two levels of basement parking extend 12' under the Glisan Street, and 9<sup>th</sup> Avenue R.O.W .

Design Review was approved in March 2006 and was recorded in April 2006.

The existing building will be demolished and its structural roof timbers salvaged. Soils reports have revealed no hazardous materials under the existing building. 100 year high water table has been established by Doug Morgan at the City of Portland as 23.5 feet, City of Portland datum. A Piezometer has been permanently installed at the sidewalk of the existing loading dock entry. A recording device for the Piezometer will be located inside the new garage entry gate. Two existing electric utility vaults will be combined at the corner of 9<sup>th</sup> and Glisan. An existing 10" diameter city storm water pipe will be relocated from beneath the sidewalk into Glisan Street.

The project is all new construction and will house retail, condominium residential, and parking uses. The ground floor will be primarily retail, with a residential entrance lobby, as well as an accessory mailroom, recycling and trash compactor spaces, loading dock and storage areas. The Fire Command Room is located directly off of the east side of the residential elevator lobby. The building will feature 12-hour concierge service.

The ground floor accommodates three separate retail spaces and a loading dock. Retail will be accessed directly from the exterior and will be provided with individual HVAC units, including independent outside air intake. The loading dock is accessed from the private garage entry gate on the east side of the building and will receive exhaust air via the parking exhaust system. The parking levels are sealed against water intrusion up to the high water table of a 100 year event.

There are a total of 114 residential units. Standard layout is eight units per floor from floors 2-14 with ten penthouse units housed on floors 15 & 16. The roof holds the cooling tower, boilers, elevator control and mechanical rooms. Exhaust elements are screened w/ two layers of expanded metal mesh.

The structural system is poured in place concrete columns and shear walls, with post tensioned concrete slab floors. Foundation system is concrete spread footings and mat slabs. Both tower stair shafts are concrete shear wall cores with additional shear wing walls to the east and west of the stair cores. The building perimeter shell is a brick veneer wall system with punched window openings. Windows are aluminum with high performance glazing. The building skin is a rain screen, pressure equalized system. Interior non-load bearing partitions and shafts will be light gauge steel stud framing and drywall assemblies.

As of April 2006, the project is tracking 41 LEED points for a Gold LEED Rating.

### **C. Building Fire & Life Safety Features – General**

The high-rise main structure will be classified as Type IA Fire Resistive (non-combustible) construction, allowing unlimited building area. Gross area of the building is 189,994 square feet, excluding the approximately 45,778 sf basement.

*The following features meet or exceed minimum OSSC requirements:*

The concrete floor construction with at least 7" thickness provides 4-hour protection while only 2 hour is required at Residential Floor-Ceiling assemblies, and 2-hour requirement separating Parking levels from Retail.

Residential Unit and Retail Unit separation walls are constructed with materials that would qualify as 2-hour assembly, although only 1 hour is required.

Corridor walls are rated 30 minute, however for acoustic quality, an additional layer of gypsum board is provided. Stair and shaft walls are a minimum of 2 hour rated construction, however substantial additional protection is provided where the massive concrete shear walls form these shafts and stair enclosures. 2 hour exit passageways are provided to connect stair enclosures to the exterior. One exit passage runs through the main residential lobby with a direct line of sight and less than 30'-0" of travel distance between stair and door.

The building will be provided with approved automatic fire protection sprinkler system throughout, as well as with the required fire detection and annunciation systems. A Fire pump will draw on a basement reservoir based on a 30-minute tank duration.

A diesel generator is located on the ground floor to serve emergency systems, including alarms, elevator operation, fire pumps, and smoke control systems.

Partitions separating residential units are double stud walls, with (2) layers of 5/8" type x gyp. bd. facing each of the units.

## D. Fire & Life Safety Code Summary

Project Name:	<b>937 Condominiums</b>
Address:	937 NW Glisan Street Portland, OR 97209
Cross Streets:	Bounded by NW 9 <sup>th</sup> , 10 <sup>th</sup> and Glisan Street
Uses/ Occupancy Groups:	Residential Units (R-2) Retail/Commercial (M) Storage (S-1) Parking Garage (S-2)
Gross Area Total:	235,772 square feet.
Number of Stories:	16 stories, 189'-0" tall (from lowest point of grade to top of mechanical screen at roof)
Construction Type:	Type 1A, Fire Resistive (unlimited height & area allowed).
Fire-Resistive Requirements (Table 6-A):	1. Bearing walls – interior: 3 hours 2. Structural frame: 3 hours 3. Partitions – permanent: 1 hour 4. Floors and floor-ceilings: 2 hours 5. Roofs and roof-ceilings: 2 hours 6. Residential Corridors: 30 minute
Spr./Alarm/Detection:	Automatic Fire Protection Sprinkler System as per NFPA 13. Full Required Fire Alarm & Detection Systems provided.
Occupancy Separations	Non-separated use building according to Section 302.3.1

Proposed Appeals (see also Section III - Appeals):

Exhaust Air from Generator Room (Omit FSD)  
Elevator Pressurization in lieu of Elevator Lobbies  
Sub-duct System for Make-up Air  
Residential Unit Areas over 2,000 SF using One Exit  
Travel Distance extended to 100 ft. within Residential Units  
Meter Room access doors extend into corridor egress path

## E. Exit Systems

1. Elevators
  - A. Key-operated switch in each car for emergency service.
  - B. Three-position key switch at the main floor.
  - C. Telephone connected to constantly manned location.

D. Alarm activation will cause elevator caps to be recalled according to the Initiation/Response matrix.

2. Egress

A. Occupant load factors (SF/occupant):

Retail	30
Garage	200
Condominium	200
Retail	30
Storage/mechanical	300

3. Entry Hardware Operation – Emergency Access to Building.

A. Fire Department Access – Non-Alarm Mode:

A Key Lock Box (KnoxBox) is provided for use by Portland Bureau of Fire & Rescue both at the main entrance alcove on Glisan Street, on the west face of inset stucco cover at building grid A-6, and at the Garage Entry on 9<sup>th</sup> street, in column cover at F-1.

The lock box will be provided with a building master key, coded key fob, and numeric access code to provide access into the building and the fire control room on the first floor adjacent to the lobby.

The master key will provide access to the exterior lock of west stair exit passage door, corridor access from locked stair tower doors, and access to all building common spaces and equipment rooms, and fire control room.

The key fob will provide access through the magnetically locked Glisan Street lobby and Garage Entrance doors, access to elevators, and access to floor stops from the elevator cab.

The numeric access code will provide access similar to the key fob at lobby entrance doors and within the elevator cabs.

(During a power outage in non-alarm mode, electronic locking is maintained by generator power).

B. Fire Department Access – Alarm Mode:

Alarm activation automatically disables the electro-magnet locks at the two main egress doors at the Glisan Street Lobby and the West Lobby, providing free passage both in and out.

Alarm activation automatically disables the exit stair landing door locks, allowing free entrance from stair landings to each floor exit corridor. These electric locks are failsafe to unlock, and

mechanical latching required for smoke control is always functional. (Egress from corridors to exit stairs is always free).

Other mechanically locked doors still require use of the master key for access.

## **F. Emergency Power & Standby Power Systems**

### 1. Emergency Power Requirements:

- A. An on-site standby power generator will be provided.
  - 1. Automatically starts upon failure of the normal electrical system.
  - 2. Automatic transfer and operation of electrical systems and equipment specified in Section B below.
  - 3. On-site fuel supply will be sufficient to operate all systems and equipment on full demand for eight hours.
  
- B. The generator is located in a dedicated room at the perimeter of the building. A skid-mounted double-wall tank, capacity under 240 gallons, will be provided. Fueling will be by truck from grade outside the building, with hose through the garage entry door, within site of the tank. An approved safe fueling procedure is to be posted in the generator room. Over flow monitoring will be provided at Lobby.
  
- C. Emergency power will be provided for the following systems within 10 seconds of failure of normal power supply:
  - 1. Exit signs and exit illumination.
  - 2. Elevator lighting.
  - 3. Fire alarm system.
  - 4. Fire detection system.
  - 5. Sprinkler system and fire pump.
  - 6. Lighting circuits supplying the Building Fire Control Room, emergency generator room, and fire pump room.
  - 7. One elevator car at a time.
  - 8. Smoke control system and dampers.
  - 9. Elevator cooling equipment.
  - 10. Securing system.
  - 11. Garage door opener.
  - 12. Exhaust fans serving sub-ducted shafts.
  - 13. Trash chute exhaust fan.
  - 14. Elevator Pressurization Fans.
  - 15. Stairwell Pressurization Fans.
  
- D. Testing:
  - 1. Test generator with worst case motor starting scenario.

2. Assure proper transfer of power during power failure.
3. Verify proper function of generator monitoring panel.

## G. Mechanical Systems

1. Residential HVAC: The condominiums on levels two through sixteen will be provided with water source heat pumps served by a central boiler and cooling tower. All central equipment will be located on the roof. Multiple condenser water-piping risers will be provided to serve heat pump units.
2. Residential Unit Exhaust: Two separate exhaust systems are provided to serve the condominium units. In order to eliminate the need for combination fire smoke dampers, each of these two systems utilize subduct exhaust as approved via an appeal. 22" subducts are provided at each riser penetration, continuously operating exhaust fans serve each riser, and all fans are powered from the emergency power system. These systems are:
  - A. Toilet and residential kitchen range exhaust: Each bathroom is equipped with a small ceiling exhaust fan operated by wall switch to allow the tenant to boost the amount of exhaust on an as needed basis. The range hood also has a switch that allows the tenant to boost the amount of exhaust. Both systems are subducted to a vertical riser.
  - B. Clothes dryer exhaust will use a similar subducted exhaust to a vertical riser. Additionally, the dryer exhaust will have a sheet metal duct within the shaft with a cleanout located at the bottom.
3. Residential Unit Ventilation: Ventilation will be provided to the condominiums by outside air one of two ways: a) in-slab ductwork, known as Eccoduct, which is routed from the perimeter of the unit to within close proximity of the WSHP; or b) via a make-up air unit, located on the roof. Ductwork from the make-up air unit is routed to each unit and does not require dampers at the unit penetration in accordance with exception 2 of Section 716.5.4 of the 2004 Oregon Structural Specialty code.
4. Retail HVAC: The retail spaces on level one will also use water source heat pumps. The units will be connected to the central system. Toilet exhaust will be provided for each tenant and ducted to sidewall louvers. Ventilation will be provided by an outside-air louver for each retail space.
5. Corridor HVAC: Normal heating and cooling of the corridor will be provided by a rooftop mounted make-up air unit and equipped with 100% economizer capability.
6. Garage Exhaust: The basement level garage will be exhausted on the east and west sides of each of the two levels. Garage exhaust rates are defined in section 404 of the 2004 Oregon Mechanical Specialty code. These rates include a minimum continuous exhaust rate of 0.05 cfm / sq.ft. and 1.5 cfm / sq.ft. anytime a carbon monoxide (CO) sensor detects a level of 25 parts per million (ppm). The City of Portland allows an alternative method, known as

the ASHRAE method, for private parking garages only. This calculation results in exhaust sized for 0.50 cfm / sq.ft. whenever CO levels exceed 25 ppm. See attached calculation. VFDs on the exhaust fans will ramp the fans down to the continuous 0.05 cfm / sq.ft. whenever the CO sensor is not activated.

A. The fans for both the east and west sides discharge to louvers above the eco-roof on the second floor. This eco-roof is not accessible to the general public.

7. Smoke Management: The purpose of the smoke control system is to maintain an environment in the exit system to allow occupants to exit the building.

A. Other than exhaust shafts, the only penetrations into each unit will be piping that is fire-caulked and make-up air ductwork meeting the requirements of section 716.5.4 exception 2 of the 2003 IBC. Exhaust shafts will feature subducts and continuously-running exhaust fans fed with emergency power. The exhaust fans will meet the requirements of IBC for drive belts and temperature.

B. Ventilation, toilet exhaust, range exhaust, and dryer exhaust shafts are provided at several places in the building. All feature subducts and exhaust fans that run during a fire mode. Fans for toilet, kitchen range, and dryer exhaust run continuously from emergency power. These fans feature status indicators only, and no manual control in the fire command center. The fans are required to run during normal and fire alarm modes. Shutting the fans down would result in loss of shaft smoke control performance with the subduct system. Status indicators are wired to all fans in series to a single set of lights for toilet, range, and dryer fans. If any one fan fails, the status lights will indicate loss of airflow at the panel. This will provide fire department personnel information that can be used to make judgements about building evacuation. The main concern would be that of a fire on the upper floors during the summer months. If a fan failed under these conditions, the reverse stack effect could transport smoke to the lower floors. Because of the vertical partitioning of the building, the smoke would likely be limited to a single "stack" of rooms.

C. The two main stairwells in the building extend to the sixteenth floor and use redundant pressurization in lieu of a vestibule at the landing of each floor. The west stairwell extends to the roof. Each stairwell will have a smoke control pressurization fan located on the roof and be fed from emergency power.

Each stair enclosure shall be provided with three louvers equipped with CWBDDs and MODs. The first CWBDD shall be set to activate at 0.15" of pressure at 2500 cfm with all doors closed. The second CWBDD shall be set to activate at 0.25" of pressure at 2500 cfm with

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all doors closed. The third CWBDD set to activate at 0.35" of pressure at 2500 cfm with all doors closed.

The Balancer will use the VFD on the pressurization fans to make these adjustments. Then, set the VFD to provide an average differential pressure across doors of 0.25". Pressures in the stair shaft shall be measured relative to the corridor.

Dampers are to be provided at louvers and fans and function per IBC 1317.4.3.3.1.

The system shall be balanced to provide approximately equal door back pressures on the stair enclosure doors at each level, including garage levels. Balancing shall be done with all pressurization systems in the building active. Door latches shall release when subject to a force not to exceed 15 pounds and the opening force required to set the door in motion shall not exceed 30 pounds. Once in motion the door shall require not more than 15 pounds of force to swing to the full open position.

Closers shall be of a type that will insure that stair enclosure doors will return to the fully closed position under all pressure conditions.

Doors at stair enclosures shall be provided with automatic, drop down door sweeps along their bottom edge. Sweeps shall be installed to insure a tight seal between the stair enclosure and the corridor. Smoke detectors are not required in the stair enclosures. The intake for the stair pressurization fan(s) shall be located at least 2 feet below or 10 feet away from any exhaust outlet.

- E. The elevator shaft will be pressurized from redundant rooftop fans provided with a VFDs to assist with the TAB effort. Each elevator hoist way shall be provided with a pressurization relief louver at the top of the hoist way sized to relieve 2500 cfm at 0.05" differential pressure measured at the open door on the recall level. Each elevator hoist way also requires a second louver as defined in IBC 3004 and IBC 1317.4.3.3.1.

The louver required per IBC 3004 shall have a motorized damper that is to:

1. Power close under normal operation.
2. Power close during a fire if the pressurization fan is working.
3. Fail open upon failure of pressurization fan(s).

The pressurization relief louver shall have a motorized damper that is to:

1. Power close under normal condition.
2. Fail open in a fire event.
3. Have a CWBDD set to relieve 2500 cfm at a differential pressure of 0.05".

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Dampers are to be provided at louvers and fans and function per IBC 1317.4.3.3.1.

In the event of a fire, all corridors will have fire-smoke dampers closed. The exhaust fan, EF-7, serving the trash chute will ramp up to full speed via a VFD to assist with the TAB effort and prevent corridor over-pressurization due to leakage from both the stairwell and elevator pressurization systems.

Both stairwell pressurization systems and elevator pressurization systems along with the corridor relief system shall activate upon signal from any corridor, machine room or lobby smoke detector or upon sprinkler water flow.

Control of air in the smoke control system will be by UL listed fire-smoke dampers. In the event that there is total failure of the smoke control function, the fusible link will provide protection of shafts.

F. Below grade parking is provided with four exhaust fans. Stairwells will maintain 0.15 inches of water positive to the garage. Retail spaces directly above the garage exit directly to the outside and feature a one-hour occupancy separation.

G. Testing:

1. Stair Pressurization

- a. After air balancing is complete, perform stair-tower pressurization tests.
- b. Establish a consistent procedure for recording data throughout the entire test. Set the stair-tower side of the doors as the reference point and the floor side of the doors with positive pressure when higher than the stair tower, and negative pressure when lower than the stair tower.
- c. With the HVAC systems operating in their normal mode of operation and the stair-tower pressurization systems off, measure and record the following:
  1. Pressure difference across each stair-tower door with all doors in the stairwell closed.
  2. Force necessary to open each door, using a spring-type scale.
- d. With the HVAC systems operating and the stair-tower pressurization system activated, perform the following:
  1. Place building HVAC systems in their normal operating mode including equipment not used to implement smoke control, such as air-handling units, toilet exhaust fans, fan coil units, and similar equipment.

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2. Measure and record the pressure difference across each stair-tower door with all doors in the stair tower closed. Adjust the stair-tower pressure relief to prevent overpressurization.
  3. Use a spring scale to measure and record the force needed to open and record the pressure difference across each remaining closed stair-tower door.
  4. Open additional doors (up to the number indicated) one at a time, and measure and record the pressure difference across each remaining closed stair-tower door after the opening of each additional door.
  5. Open the doors indicated to be open and measure and record the direction and velocity through each of the open doors by a traverse of every 1 sq. ft. grid of door opening.
  6. Calculate the average of the door velocity measurements. Compare the average velocity to the Contract Documents and governing code requirements.
- e. Repeat the pressurization tests with the smoke-control systems and the HVAC systems operating.
- f. Criteria for Acceptance:
1. The opening force on any door shall not exceed 30 lbf.

2. Trash Chute

- a. The trash chute exhaust fan, EF-7, will be provided with a VFD to assist with the TAB effort and shall also be on emergency power. It shall normally run in low speed and ramp up in alarm to help exhaust the corridors and prevent over pressurization of the corridors by the elevator and stairwell pressurization fans.

3. Fire Alarm System - test system for the following:

- a. Detector response.
- b. Monitoring switches.
- c. Sequence of operation:
  1. Fans
  2. Dampers
  3. Magnetic hold opens
  4. Manual overrides
  5. System monitoring (dampers, fire flow, generator run, fire pump run, etc.)
- d. Component response times.

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4. Emergency Power - pretest conditions:
  - a. Above smoke control tests have passed.
  - b. Initiate alarm via flow switch.
  - c. Verify fire pump start.
  - d. Verify smoke control system positive response (all fans, dampers).
  - e. With elevator running, disconnect main house electrical service to simulate power outage.
  
5. Passing criteria: All system components restart and become fully functional 25 (10 second generators start time plus 15 second component response time) seconds after power failure. Monitor generator under load for 5 minutes or until generator coolant temperatures have reached equilibrium.

#### H. Fire Command Center

1. To be located on the ground floor near the Glisan Street entrance.
2. Protection:
  - A. One-hour separation from remainder of building.
  - B. Openings protected by 60 minute doors.
  - C. Minimum Area 96 square feet, minimum dimension 8 feet.
  - D. Lighting on emergency power.
  - E. Automatic unlocking of building fire control room upon any fire alarm.
  - F. Room is pressurized.
3. Receive and annunciate fire signal: Via alphanumeric display describing device type and location.
4. Receive and annunciate supervisory signals from:
  - A. Valve position & water flow indicators for sprinkler system.
  - B. Electrical supervision of all fire protection circuits.
  - C. Emergency generator power status.
  - D. Fire pump status.
  - E. Elevator visual annunciation of location and operational status
  - F. Duct smoke detectors: by device.
5. Controls and/or status indicators for:
  - A. Smoke exhaust (by zone) with on/off/auto switches
  - B. Emergency generator
6. Output from building fire command center:
  - A. Fire alarm will cause alarm transmission directly to the central station.

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- B. Actuation of any alarm device will sound an audible evacuation alarm in the on event floor and adjacent floors.
  - C. Actuation of any alarm device will release doors on hold-open throughout zone of origin, and retract electrically engaged locks to allow re-entry from stair to corridors.
7. Other Fire Command Center Features:
- A. Voice system & public address system panels.
  - B. Fire Department communications panel.
  - C. Controls for unlocking all stairway doors simultaneously (automatic).
  - D. Telephone for fire department use with controlled access to public phone system.
  - E. Building plans indicating typical floor plan detailing the building core, means of egress, fire protection system, fire fighting equipment & fire department access.
  - F. Work table
8. Fire panel schematic attached

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## I. Automatic Sprinkler System

The fire protection features contained herein are a compilation of code requirements, and items recommended by the design team. As the design progresses, the outline is subject to revision or expansion as appropriate.

1. Automatic Sprinklers:
  - A. The building will be equipped throughout with an automatic sprinkler system, designed in accordance with NFPA Standard 13 and UBC Standard 9-1.
  - B. One combined sprinkler/standpipe riser will be installed in one of the two stairwells in the tower. The other tower stairwell will have a standpipe only installed. Both of these risers will be pressurized by a fire pump system.
  - C. Sprinkler system hydraulic design will be based on the following criteria:
    1. Retail: 0.20 gpm per sq.ft. over the most remote 1500 sq.ft.
    2. Parking: 0.15 gpm per sq.ft. over the most remote 1950 sq.ft. based on a dry pipe system.
    3. Residential: Based on NFPA 13 design standard.
    4. Tests per NFPA 13.
  - D. Supervision water flow alarms at each floor:
    1. Water flow alarms at each floor.
    2. Valve position indicators.
2. Standpipes:
  - A. Installation in accordance with NFPA 14 and UBC Standard 9-2.
  - B. Class I system outlets in the following areas: Each floor level vestibule of enclosed exit stairs.
  - C. Each connection will be a 2-1/2 inch outlet.
  - D. Combination standpipe for sprinkler feed.
  - E. Maintain Stairwells at 40 degrees or above.
3. Water supplies for automatic sprinklers and standpipe systems:
  - A. All sprinkler and tower standpipe system will be interconnected.
  - B. Connection to the municipal water system: Connected to 6-inch main on NW 9<sup>th</sup> St.
  - C. One Fire Pump will be provided in accordance with City of Portland standards. The fire pump draw water from a 15,000 gallon on-site reservoir. The fire pump is located in a room near the center of the lower floor garage level adjacent to the water storage tank.
  - D. A fire department pumper connection will be provided.
  - E. Water flow test at 11<sup>th</sup> and Flanders:

- a. Static: 80 psi.
    - b. Residual: 78 psi.
    - c. Flowing: 2000 gpm.
    - d. Test Date: 1/9/1996
    - e. Information source: Portland Water Bureau
  - F. Fire Pump Test: Pumps will be tested per NFPA 20.
4. Fire Extinguishers: Fire extinguishers with a 4-A:10-B:C rating will be provided throughout, generally near each stairway door. Maximum travel distance to an extinguisher will not exceed 75 feet.
5. Detection
- A. Purpose: Located in critical areas of the building to detect products of combustion and sound alarm at the Fire Command Center and locally where appropriate.
  - B. Type: 24VDC type powered by the fire alarm panel.
  - C. Testing: The Contractor will test detectors with a random sampling on each floor to demonstrate function.
  - D. Duct Smoke Detectors: Located in every air-handling system having a capacity of 2000 cfm or greater at the:
    - 1. Main supply duct downstream of the filters to automatically stop the fan.
6. Smoke Detectors Located as Follows:
- A. Doors on hold-open devices. (between smoke zones)
  - B. Elevator landings.
  - C. Elevator equipment rooms and elevator shafts.
  - D. Accessory electrical, mechanical, and storage rooms.
  - E. Corridor and common areas:
    - 1. In building fire control room.
    - 2. At top of stairwells.
7. Sprinkler waterflow and tamper switch monitors.
8. Manual Fire Alarm Stations Located as Follows:
- A. At each exit, from the main building. Not to be provided at exits from retail shops.
  - B. At each exit from every floor.
  - C. Elsewhere to meet maximum 200 foot travel distance.

## J. Fire Alarm System

1. Alarm and Notification
  - A. Alarm signals will be transmitted to the building fire command control center for each of the following:
    1. Sprinkler/standpipe waterflow indicators - by device address, zones by floor and area served.
    2. Sprinkler control valve supervisory switches - by device address.
    3. Smoke detectors - by device address.
    4. Manual fire alarm stations - by device address.
  - B. Zoning and Annunciation:
    1. Evacuation zone will be the alarm initiation floor and one adjacent floor both above and below.
    2. Sprinkler systems, alarm initiation zones and HVAC zones will be coordinated.
    3. Alarms will indicate zone, location, and device address. (See Smoke Management Response Matrix, Appendix B.)
  - C. All general alarms, trouble, and supervisory signals, will be transmitted to the building fire command control center. The signals will be retransmitted to a remote monitoring station.
  - D. Fire signals will be automatically retransmitted to the fire department by the remote monitoring station.
  - E. At the Fire Command Center, any Fire Alarm event shall be displayed on an LCD display. The system alarm red LED shall flash on the control panel until the alarm has been acknowledged at the control panel. Once acknowledged, this same LED shall latch on. A subsequent alarm received from another zone or address after the original alarm zone or address has been acknowledged shall flash the system alarm LED on the control panel. The LCD display shall show new alarm information.
  - F. Alarm speakers shall be programmed to automatically broadcast the evacuation message to event floor and adjacent floors. Two messages shall be provided-one for testing and one for actual alarms.
  - G. The audio alarm signal shall consist of an alarm tone for approximately 10 seconds followed by an automatic pre-recorded voice evacuation message. At the end of each voice evacuation message, the alarm tone shall resume. The tones shall sound until the alarm silence switch at the fire alarm control panel has been operated.

- H. Visual alarms shall remain energized until the system is reset.
  - I. Tests: Activate the alarm and communication system by initiating an alarm in a random location.
    - 1. Verify that the voice alarm can be heard and understood on each floor.
    - 2. Verify visual alarm function on each floor.
    - 3. Verify public address function on each floor.
    - 4. Test telephone jacks and headsets at all locations.
    - 5. Verify water flow and tamper switch function.
    - 6. Test trouble alarms.
    - 7. Verify signal to monitoring service.
    - 8. Test under emergency and normal power.
2. Communications
- A. A one-way communication system is provided for the operator to make announcements throughout the building.
  - B. Provide fireman phone jacks for two-way fire department communication. Stations are located in the vestibules at stair landings & at each elevator lobby.
  - C. Outside phone line.
3. Smoke Control
- A. Activation:
    - 1. Automatic by water flow device.
    - 2. Open area smoke detectors in a tenant space. System will not operate upon activation of detector in residential units.
    - 3. Manual from building fire control room.
    - 4. System will not operate upon an alarm from manual fire alarm stations, except for stair pressurization.
  - B. Capacities and Operation:
    - 1. Central corridors, levels 2 to 16: 14,000 cfm supply.
    - 2. Fire communications, level 1, Room 133: 185 cfm supply.
    - 3. Below grade garage: 20,000 cfm total exhaust.
    - 4. Stairs: Two fans, 12,500 CFM each.
    - 5. Elevator: 18,000 CFM, with 100% redundancy

Note that the above air flows are design values that assume certain leakage and pressure characteristics of the construction. Actual air flows will be adjusted downward in the field if needed to achieve the desired pressure differential across partitions, doors, etc. Final balancing reports will reflect actual air flows that achieve passing pressure differences and acceptable door opening force.

C. The mechanical systems and fans listed in the smoke control description will meet the specific requirements of IBC Section 909.

4. Locations

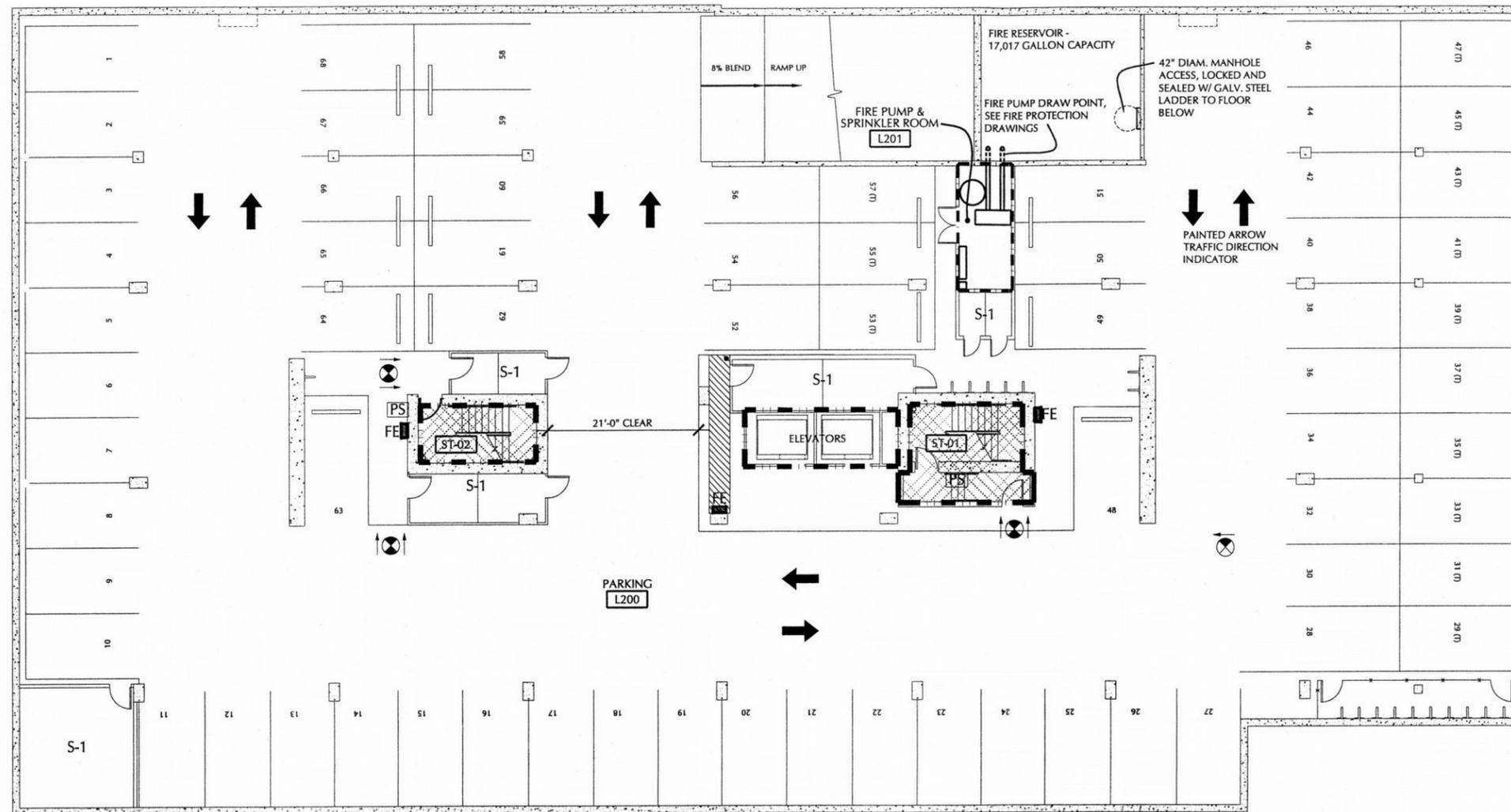
- A. Alarm speakers are located as shown on drawings.
- B. The sprinkler water flow switches are located at the sectional control valve and on each floor.
- C. Supervisory switches are located at all sprinkler control valves.
- D. Visual alarms are located as required by code in all areas accessed by the public including corridors, public restrooms, parking garage, elevator lobbies, building entry lobby, meeting room and exercise room.

**Section II**

**Rated Construction and Exiting Key Plans**

# BUILDING DATA

PROJECT NAME	937 CONDOMINIUMS		
ADDRESS	937 NW GLISAN		
LOCATION	PORTLAND, OREGON 97209		
CODE	INTERNATIONAL BUILDING CODE, 2003 ED.	OREGON SPEC. CODE, 2004	
OCCUPANCY	A	B	E F H I M R S U SR
DIVISION	1	2	3 4 5 6 7
OCCUPANCY	A	B	E F H I M R S U SR
DIVISION	1	2	3 4 5 6 7
OCCUPANCY	A	B	E F H I M R S U SR
DIVISION	1	2	3 4 5 6 7
CONSTRUCTION	TYPE IA	TYPE II	TYPE III TYPE IV TYPE V
	COMBUSTIBLE	NON-COMBUSTIBLE	
	FIRE-RESISTIVE	1-HOUR	N H.T. FULLY SPRINKLERED
SEISMIC ZONE	1 2 2b 3 4		
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES		
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED)	SQ. FT./FLOOR/BUILDING : TABLE 503	
APPLICABLE AREA INCREASE	NOT USED	SQ. FT./FLOOR/BUILDING CODE REF.: 504.2, 505.1.3 & 505.3	
TOTAL PROJECT FLOOR AREA	190,044 SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)		
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED)	STORY(IES)	(UNLIMITED) FEET: TABLE 503
	BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)		
PROJECT	W&K DEVELOPMENT		
DESCRIPTION	SIXTEEN STORY MULTI-FAMILY HOUSING WITH TWO LEVELS OF BELOW GRADE PARKING AND GROUND FLOOR RETAIL.		
RESIDENTIAL	NO. OF UNITS	114	
RETAIL	TOTAL SF	11,167 SF	
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1	
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)	
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)	
	VAN ACCESSIBLE	1 TOTAL	
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT	
		20,806 SF/ GROUND FLOOR	
	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/floor)	
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (11,570 SF/floor)	
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA	
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT	
		190,044 SF/ TOTAL PROJECT W/O BASEMENT	
		175,143 SF/ TOTAL RESIDENTIAL	
FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)			
STRUCT. FRAME	3 HOUR		
BRG. WALLS	3 HOUR		
FLOOR CONSTRUCTION	2 HOUR		
ROOF CONSTRUCTION	1 1/2 HOUR		
WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY			
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE	OVER	30 FEET
	ONE	HOURS) LESS THAN	10 FEET
	TWO	HOURS) LESS THAN	FEET/ NOT USED
PROJECT	60 FT. R.O.W.	AT 9TH, 10TH & GLISAN	
		STREET FRONT WALLS - NC	
	6" SEISMIC SETBACK	NORTH PROPERTY LINE	
APPEALS			
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION	
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS	
10/26/06	APPEAL #2805	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM	
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT	
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.	
1/5/07	APPEAL #2514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH	
ZONING			
LAND USE ZONING	Exd (CCPD)		
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING		
SETBACKS	FRONT	0	FEET
	SIDE	0	FEET
	CORNER	0	FEET
	REAR	0	FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS		
	plus BASEMENT	XX	FEET PROJECT
PARKING	MIN	NONE	VEHICLE SPACES
	MAX	NONE	VEHICLE SPACES
LANDSCAPE	MIN	NONE	%



## CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: X"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

## NOTES

- BUILDING ENTRY DOOR HARDWARE OPERATION**
- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
  - THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOP MATERIALS/ASSEMBLIES WHICH WILL BE USED, THE TYPE OF PENETRATIONS WHERE EACH MATERIAL/ASSEMBLY WILL BE USED; AND THE LISTING AND APPROVAL INFORMATION (I.E. UL, ICBO, ICC OR OTHER APPROVED REPORT/LISTING NUMBERS.) THIS INFORMATION MUST BE SUBMITTED TO, AND APPROVED BY, THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

## LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FIRE EXTINGUISHER
- FULLY RECESSED FIRE EXTINGUISHER CABINET
- FIRE PULL STATION
- FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

**LS**  
**L2** LIFE SAFETY PLAN - BASEMENT L2  
1" = 20'-0"

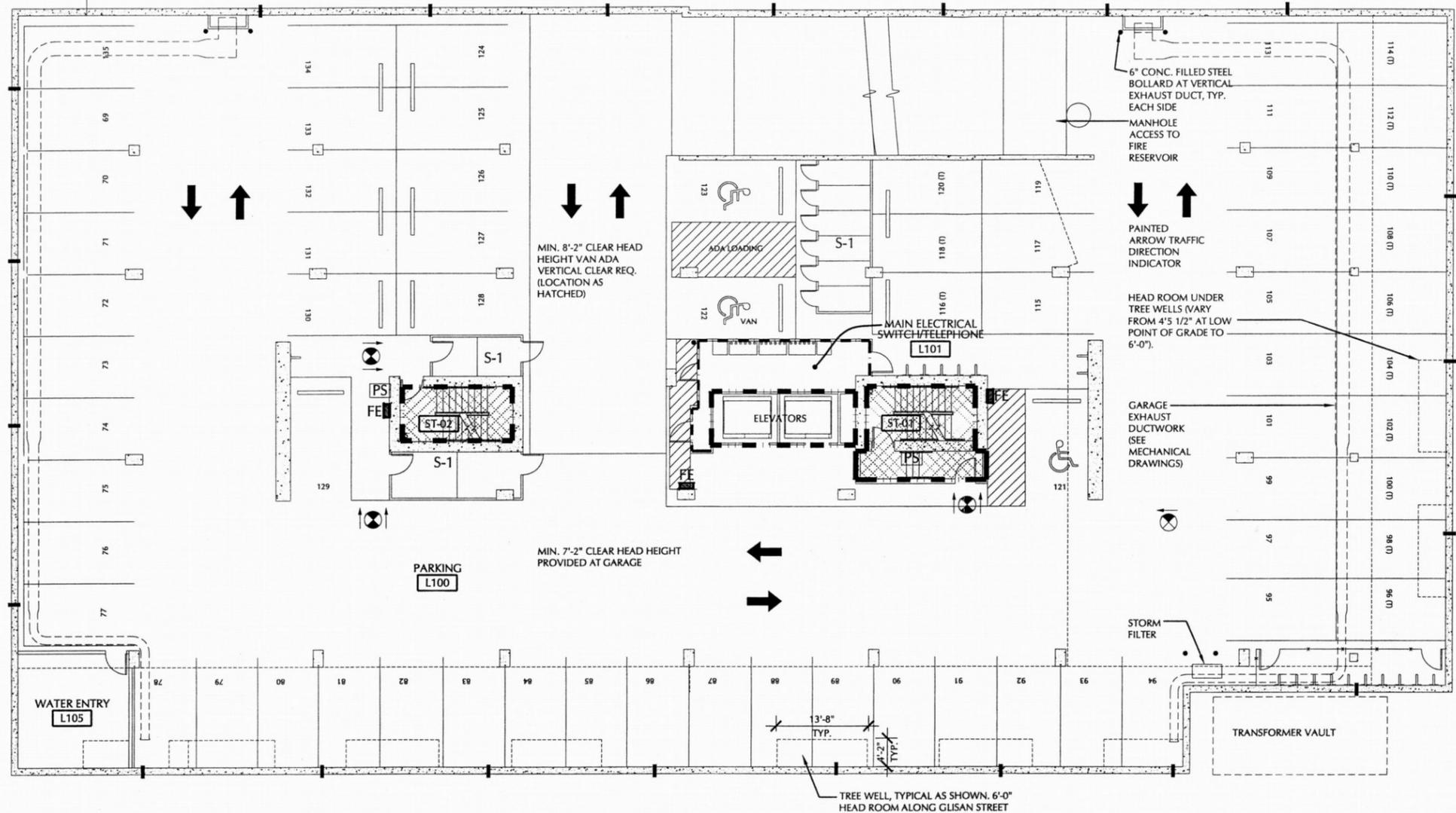


5.23.2006 REV. 7.27.2006  
REV. 1.5.07

**937**  
condominiums

# BUILDING DATA

PROJECT NAME	937 CONDOMINIUMS		
ADDRESS	937 NW GLISAN		
LOCATION	PORTLAND, OREGON 97209		
CODE	INTERNATIONAL BUILDING CODE, 2003 ED.	OREGON SPEC. CODE, 2004	
OCCUPANCY	A B E F H I M R S U SR	R S U SR	
DIVISION	1 2 2.1 3 4 5 6 7	3 4 5 6 7	
OCCUPANCY	A B E F H I M R S U SR	R S U SR	
DIVISION	1 2 2.1 3 4 5 6 7	3 4 5 6 7	
OCCUPANCY	A B E F H I M R S U SR	R S U SR	
DIVISION	1 2 2.1 3 4 5 6 7	3 4 5 6 7	
CONSTRUCTION	TYPE IA TYPE II TYPE III TYPE IV TYPE V		
COMBUSTIBLE	NON-COMBUSTIBLE		
FIRE-RESISTIVE	1-HOUR N H.T.	FULLY SPRINKLERED	
SEISMIC ZONE	1 2 2b 3 4	3 4	
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES		
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED)	SQ. FT./FLOOR/BUILDING : TABLE 503	
APPLICABLE AREA INCREASE	NOT USED	SQ. FT./FLOOR/BUILDING	
TOTAL PROJECT FLOOR AREA	190,044	SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)	
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED)	STORY(IES)	(UNLIMITED) FEET: TABLE 503
	BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)		
PROJECT	W&K DEVELOPMENT		
DESCRIPTION	SIXTEEN STORY MULTI-FAMILY HOUSING WITH TWO LEVELS OF BELOW GRADE PARKING AND GROUND FLOOR RETAIL.		
RESIDENTIAL	NO. OF UNITS	114	
RETAIL	TOTAL SF	11,167 SF	
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1	
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)	
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)	
	VAN ACCESSIBLE	1 TOTAL	
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT	
		20,806 SF/ GROUND FLOOR	
	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/floor)	
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (11,570 SF/floor)	
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA	
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT	
		190,044 SF/ TOTAL PROJECT W/O BASEMENT	
		175,143 SF/ TOTAL RESIDENTIAL	
FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)			
STRUCT. FRAME	3 HOUR		
BRG. WALLS	3 HOUR		
FLOOR CONSTRUCTION	2 HOUR		
ROOF CONSTRUCTION	1 1/2 HOUR		
WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY			
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE	OVER	30 FEET
	ONE	HOUR(S) LESS THAN	10 FEET
	TWO	HOUR(S) LESS THAN	FEET/ NOT USED
PROJECT	60 FT. R.O.W.	AT 9TH, 10TH & GLISAN	
	6" SEISMIC SETBACK	NORTH PROPERTY LINE	
APPEALS			
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION	
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS	
10/26/06	APPEAL #3305	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM	
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT	
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.	
1/5/07	#3514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH	
ZONING			
LAND USE ZONING	Exd (CCPD)		
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING		
SETBACKS	FRONT	0	FEET
	SIDE	0	FEET
	REAR	0	FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS	plus BASEMENT XX FEET PROJECT	
PARKING	MIN	NONE	VEHICLE SPACES
	MAX	NONE	VEHICLE SPACES
LANDSCAPE	MIN	NONE	%



## CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: X"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

## NOTES

- BUILDING ENTRY DOOR HARDWARE OPERATION**
- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
  - THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOPPING MATERIALS/ASSEMBLIES WHICH WILL BE USED, THE TYPE OF PENETRATIONS WHERE EACH MATERIAL/ASSEMBLY WILL BE USED; AND THE LISTING AND APPROVAL INFORMATION (I.E. UL, ICBO, ICC OR OTHER APPROVED REPORT/LISTING NUMBERS.) THIS INFORMATION MUST BE SUBMITTED TO, AND APPROVED BY, THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

## LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FIRE EXTINGUISHER
- FULLY RECESSED FIRE EXTINGUISHER CABINET
- FIRE PULL STATION
- FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

LS L1 LIFE SAFETY PLAN - BASEMENT L1  
1" = 20'-0"



5.23.2006 REV. 7.27.2006  
REV. 1.5.07

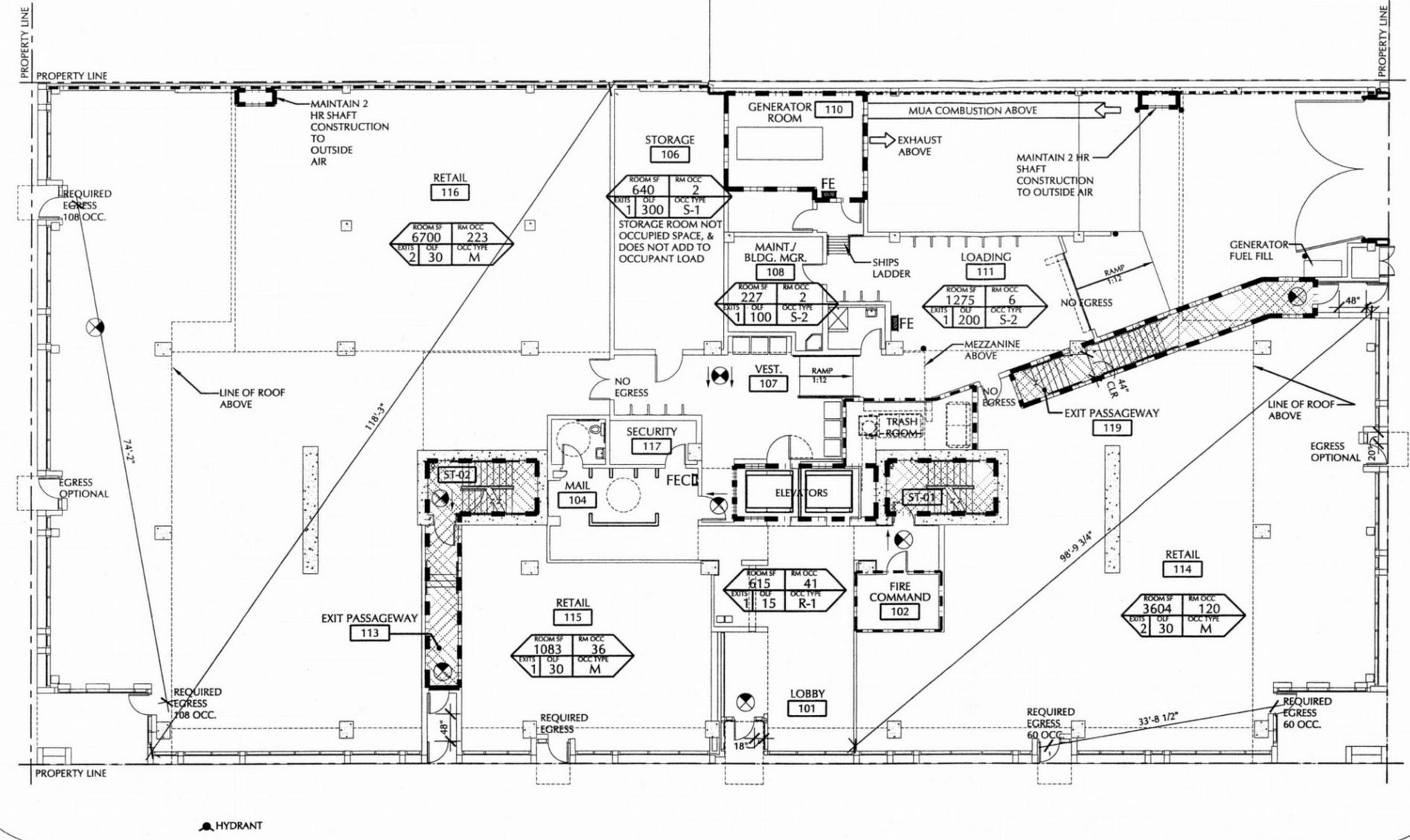
937  
condominiums

NW 10TH

NW 9TH

### BUILDING DATA

PROJECT NAME	937 CONDOMINIUMS		
ADDRESS	937 NW GLISAN		
LOCATION	PORTLAND, OREGON 97209		
CODE	INTERNATIONAL BUILDING CODE, 2003 ED.	OREGON SPEC. CODE, 2004	
OCCUPANCY	A B E F H I M R S U SR		
DIVISION	1 2 3 4 5 6 7		
OCCUPANCY	A B E F H I M R S U SR		
DIVISION	1 2 3 4 5 6 7		
OCCUPANCY	A B E F H I M R S U SR		
DIVISION	1 2 3 4 5 6 7		
CONSTRUCTION	TYPE I A TYPE II TYPE III TYPE IV TYPE V		
COMBUSTIBLE	NON-COMBUSTIBLE		
FIRE-RESISTIVE	1-HOUR N H.T.	FULLY SPRINKLERED	
SEISMIC ZONE	1 2 2b 3 4		
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES		
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED)	SQ. FT./FLOOR/BUILDING : TABLE 503	
APPLICABLE AREA INCREASE	NOT USED	SQ. FT./FLOOR/BUILDING	
TOTAL PROJECT FLOOR AREA	190,044	SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)	
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED)	STORY(IES)	(UNLIMITED)
	BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)		
PROJECT	W&K DEVELOPMENT		
DESCRIPTION	SIXTEEN STORY MULTIFAMILY HOUSING WITH TWO LEVELS OF BELOW GRADE PARKING AND GROUND FLOOR RETAIL.		
RESIDENTIAL	NO. OF UNITS	114	
RETAIL	TOTAL SF	11,167 SF	
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1	
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)	
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)	
	VAN ACCESSIBLE	1 TOTAL	
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT	
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	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/floor)	
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (11,570 SF/floor)	
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA	
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT	
		190,044 SF/ TOTAL PROJECT W/O BASEMENT	
		175,143 SF/ TOTAL RESIDENTIAL	
FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)			
STRUCT. FRAME	3 HOUR		
BRG. WALLS	3 HOUR		
FLOOR CONSTRUCTION	2 HOUR		
ROOF CONSTRUCTION	1 1/2 HOUR		
WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY			
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE	OVER	30 FEET
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PROJECT	60 FT. R.O.W.	AT 9TH, 10TH & GLISAN	
		STREET FRONT WALLS - NC	
	6" SEISMIC SETBACK	NORTH PROPERTY LINE	
APPEALS			
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION	
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS	
10/26/06	APPEAL #1305	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM	
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT	
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.	
1/5/07	#3514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH	
ZONING			
LAND USE ZONING	Exd (CCPD)		
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING		
SETBACKS	FRONT	0	FEET
	SIDE	INTERIOR	0 FEET
	REAR	CORNER	0 FEET
			0 FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS	plus BASEMENT XX FEET PROJECT	
PARKING	MIN	NONE	VEHICLE SPACES
	MAX	NONE	VEHICLE SPACES
LANDSCAPE	MIN	NONE	%



NW GLISAN

### CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: "X"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

### NOTES

- BUILDING ENTRY DOOR HARDWARE OPERATION**
- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
  - THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOP MATERIALS/ASSEMBLIES WHICH WILL BE USED, THE TYPE OF PENETRATIONS WHERE EACH MATERIAL/ASSEMBLY WILL BE USED; AND THE LISTING AND APPROVAL INFORMATION (I.E. UL, ICBO, ICC OR OTHER APPROVED REPORT/LISTING NUMBERS.) THIS INFORMATION MUST BE SUBMITTED TO, AND APPROVED BY, THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

### LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FE FIRE EXTINGUISHER
- FEC FULLY RECESSED FIRE EXTINGUISHER CABINET
- FPS FIRE PULL STATION
- FP FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

## LIFE SAFETY PLAN - GROUND FLOOR

1" = 20'-0"

LS 01



5.23.2006

REV. 7.27.2006  
REV. 9.30.2006  
REV. 1.5.07

937  
condominiums

# BUILDING DATA

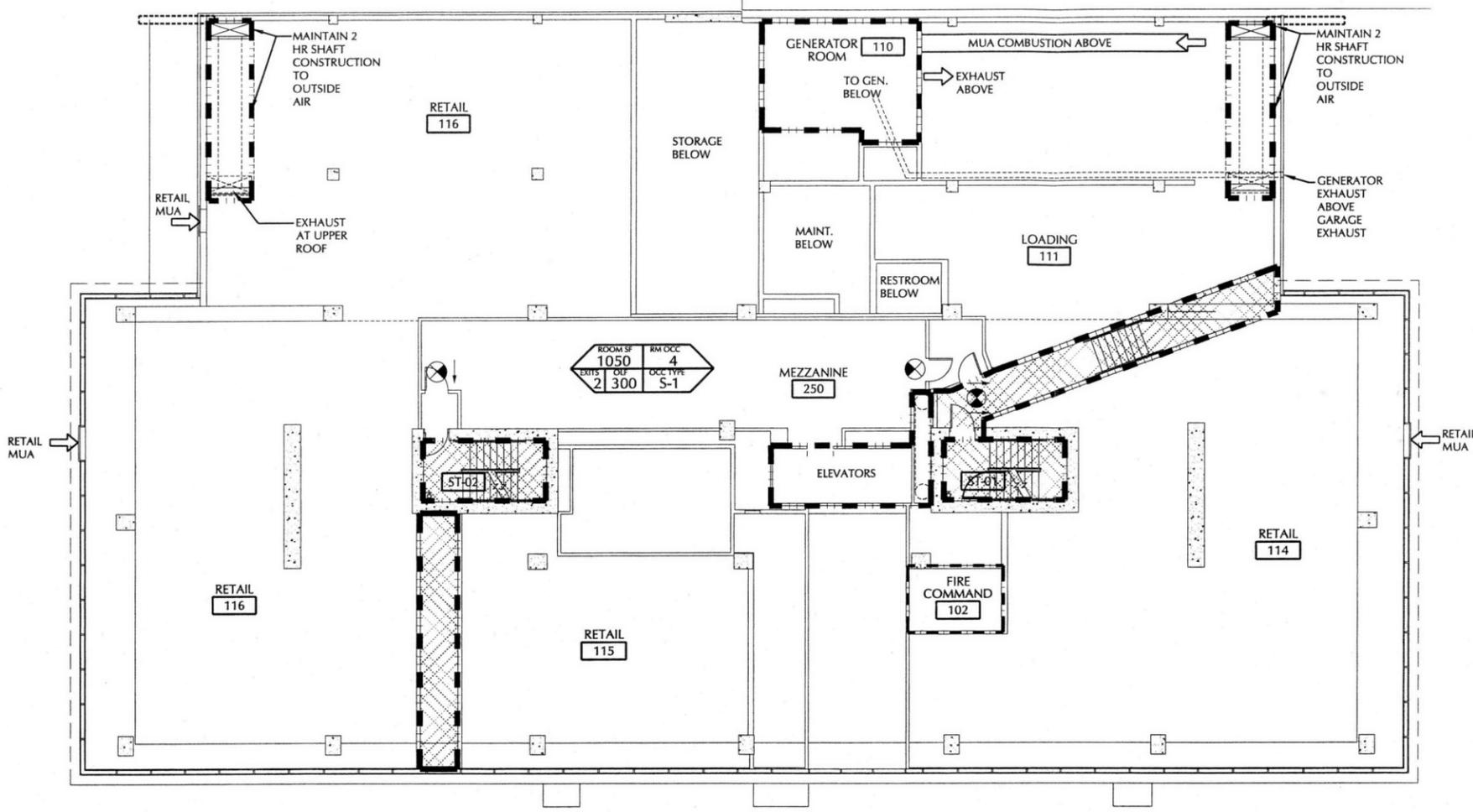
PROJECT NAME	937 CONDOMINIUMS	
ADDRESS	937 NW GLISAN	
LOCATION	PORTLAND, OREGON 97209	
CODE	INTERNATIONAL BUILDING CODE, 2003 ED.	OREGON SPEC. CODE, 2004
OCCUPANCY	A B E F H I M R S U SR	
DIVISION	1 2 3 4 5 6 7	
OCCUPANCY	A B E F H I M R S U SR	
DIVISION	1 2 3 4 5 6 7	
OCCUPANCY	A B E F H I M R S U SR	
DIVISION	1 2 3 4 5 6 7	
CONSTRUCTION	TYPE I TYPE II TYPE III TYPE IV TYPE V	
	COMBUSTIBLE NON-COMBUSTIBLE	
	FIRE-RESISTIVE 1-HOUR N H.T. FULLY SPRINKLERED	
SEISMIC ZONE	1 2 2b 3 4	
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES	
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED) SQ. FT./FLOOR/BUILDING : TABLE 503	
APPLICABLE AREA INCREASE	NOT USED SQ. FT./FLOOR/BUILDING CODE REF.: 504.2, 505.1.3 & 505.3	
TOTAL PROJECT FLOOR AREA	190,044 SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)	
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED) STORIES (UNLIMITED) FEET: TABLE 503 BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)	

PROJECT	W&K DEVELOPMENT	
DESCRIPTION	SIXTEEN STORY MULTI-FAMILY HOUSING WITH TWO LEVELS OF BELOW GRADE PARKING AND GROUND FLOOR RETAIL.	
RESIDENTIAL	NO. OF UNITS	114
RETAIL	TOTAL SF	11,167 SF
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)
	VAN ACCESSIBLE	1 TOTAL
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT
		20,806 SF/ GROUND FLOOR
	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/floor)
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (11,570 SF/floor)
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT
		190,044 SF/ TOTAL PROJECT W/O BASEMENT
		175,143 SF/ TOTAL RESIDENTIAL

FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)	
STRUCT. FRAME	3 HOUR
BRG. WALLS	3 HOUR
FLOOR CONSTRUCTION	2 HOUR
ROOF CONSTRUCTION	1 1/2 HOUR
WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY	
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE OVER 30 FEET
	ONE HOUR(S) LESS THAN 10 FEET
	TWO HOUR(S) LESS THAN FEET/ NOT USED
PROJECT	60 FT. R.O.W. AT 9TH, 10TH & GLISAN
	STREET FRONT WALLS - NC
	6" SEISMIC SETBACK NORTH PROPERTY LINE

APPEALS		
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS
10/26/06	APPEAL #3315	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.
1/5/07	#3514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH

ZONING	
LAND USE ZONING	Ext (CCPD)
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING
SETBACKS	FRONT 0 FEET
	SIDE INTERIOR 0 FEET
	CORNER 0 FEET
	REAR 0 FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS plus BASEMENT XX FEET PROJECT
PARKING	MIN NONE VEHICLE SPACES
	MAX NONE VEHICLE SPACES
LANDSCAPE	MIN NONE %



## CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: X"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

## NOTES

### BUILDING ENTRY DOOR HARDWARE OPERATION

- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
- THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOP MATERIALS/ASSEMBLIES WHICH WILL BE USED, THE TYPE OF PENETRATIONS WHERE EACH MATERIAL/ASSEMBLY WILL BE USED; AND THE LISTING AND APPROVAL INFORMATION (I.E. UL, ICBO, ICC OR OTHER APPROVED REPORT/LISTING NUMBERS.) THIS INFORMATION MUST BE SUBMITTED TO, AND APPROVED BY, THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

## LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FIRE EXTINGUISHER
- FULLY RECESSED FIRE EXTINGUISHER CABINET
- FIRE PULL STATION
- FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

LS M LIFE SAFETY PLAN - MEZZANINE  
1" = 20'-0"

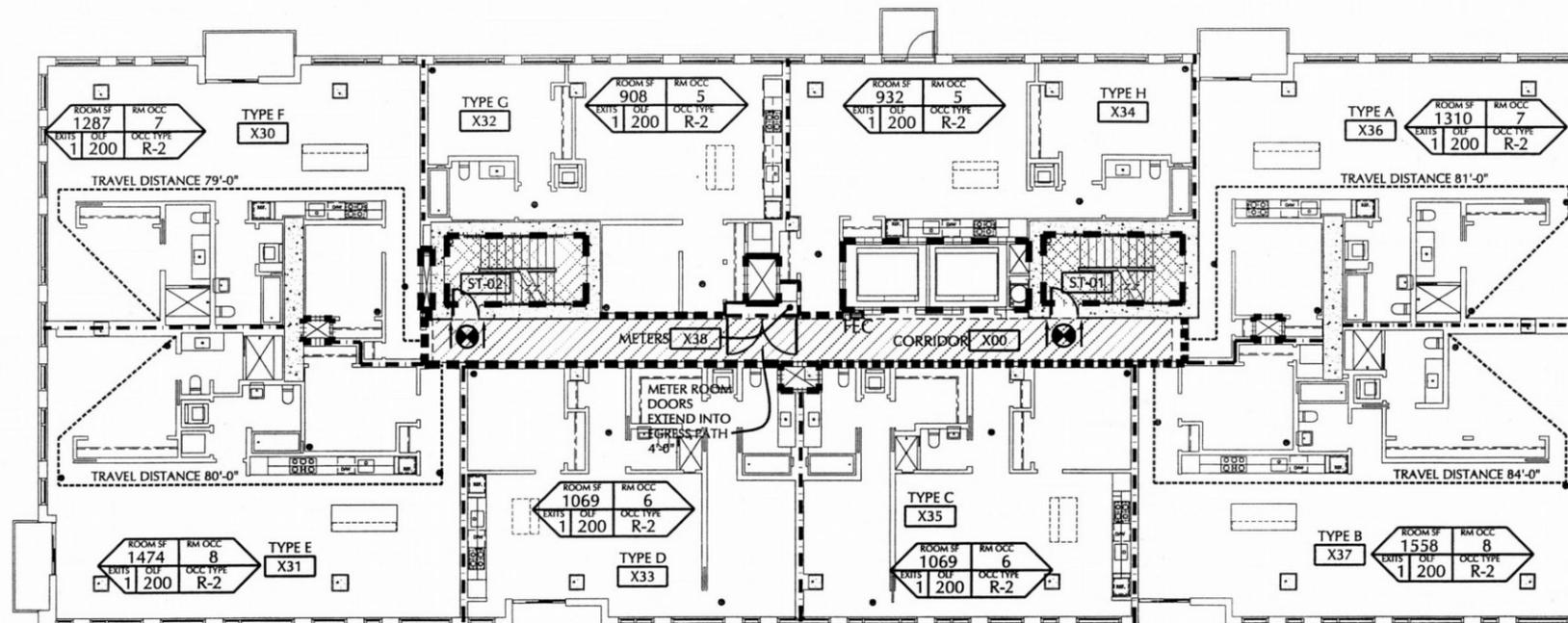


5.23.2006 REV. 7.27.2006  
REV. 9.30.2006  
REV. 1.5.07

937  
condominiums

# BUILDING DATA

PROJECT NAME	937 CONDOMINIUMS		
ADDRESS	937 NW GLISAN		
LOCATION	PORTLAND, OREGON 97209		
CODE	INTERNATIONAL BUILDING CODE, 2003 ED. OREGON SPEC. CODE, 2004		
OCCUPANCY	A	B	E F H I M R S U SR
DIVISION	1	2	3 4 5 6 7
OCCUPANCY	A	B	E F H I M R S U SR
DIVISION	1	2	3 4 5 6 7
OCCUPANCY	A	B	E F H I M R S U SR
DIVISION	1	2	3 4 5 6 7
CONSTRUCTION	TYPE IA	TYPE II	TYPE III TYPE IV TYPE V
COMBUSTIBLE	NON-COMBUSTIBLE		
FIRE-RESISTIVE	1-HOUR	N	H.T. FULLY SPRINKLERED
SEISMIC ZONE	1	2	3 4
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES		
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED)	SQ. FT./FLOOR/BUILDING : TABLE 503	
APPLICABLE AREA INCREASE	NOT USED	SQ. FT./FLOOR/BUILDING	
TOTAL PROJECT FLOOR AREA	190,044	SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)	
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED)	STORY(IES)	(UNLIMITED) FEET: TABLE 503
	BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)		
PROJECT	W&K DEVELOPMENT		
DESCRIPTION	SIXTEEN STORY MULTI-FAMILY HOUSING WITH TWO LEVELS OF BELOW GRADE PARKING AND GROUND FLOOR RETAIL.		
RESIDENTIAL	NO. OF UNITS	114	
RETAIL	TOTAL SF	11,167 SF	
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1	
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)	
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)	
	VAN ACCESSIBLE	1 TOTAL	
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT	
		20,806 SF/ GROUND FLOOR	
	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/ft)	
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (11,570 SF/floor)	
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA	
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT	
		190,044 SF/ TOTAL PROJECT W/O BASEMENT	
		175,143 SF/ TOTAL RESIDENTIAL	
FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)			
STRUCT. FRAME	3 HOUR		
BKG. WALLS	3 HOUR		
FLOOR CONSTRUCTION	2 HOUR		
ROOF CONSTRUCTION	1 1/2 HOUR		
WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY			
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE	OVER	30 FEET
	ONE	HOURS) LESS THAN	10 FEET
	TWO	HOURS) LESS THAN	FEET/ NOT USED
PROJECT	60 FT. R.O.W.	AT 9TH, 10TH & GLISAN	
		STREET FRONT WALLS - NC	
	6" SEISMIC SETBACK	NORTH PROPERTY LINE	
APPEALS			
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION	
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS	
10/26/06	APPEAL #2205	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM	
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT	
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.	
1/5/07	#3514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH	
ZONING			
LAND USE ZONING	Ext (CCPD)		
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING		
SETBACKS	FRONT	0	FEET
	SIDE	0	FEET
	CORNER	0	FEET
	REAR	0	FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS		
	PLUS BASEMENT	XX	FEET PROJECT
PARKING	MIN	NONE	VEHICLE SPACES
	MAX	NONE	VEHICLE SPACES
LANDSCAPE	MIN	NONE	%



NOTE: ALL DECKS SOLID SURFACE, NOT POROUS

## CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: 58 1/2"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

## NOTES

### BUILDING ENTRY DOOR HARDWARE OPERATION

- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
- THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOP MATERIALS/ASSEMBLIES WHICH WILL BE USED, THE TYPE OF PENETRATIONS WHERE EACH MATERIAL/ASSEMBLY WILL BE USED; AND THE LISTING AND APPROVAL INFORMATION (I.E. U.L., ICBO, ICC OR OTHER APPROVED REPORT/LISTING NUMBERS.) THIS INFORMATION MUST BE SUBMITTED TO, AND APPROVED BY, THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

## LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FIRE EXTINGUISHER
- FULLY RECESSED FIRE EXTINGUISHER CABINET
- FIRE PULL STATION
- FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

# LS LIFE SAFETY PLAN - 2ND THRU 14TH FLOOR

L2\_14 1" = 20'-0"



5.23.2006 REV. 7.27.2006  
REV. 1.5.2007

937  
condominiums

# BUILDING DATA

PROJECT NAME	937 CONDOMINIUMS		
ADDRESS	937 NW GLISAN		
LOCATION	PORTLAND, OREGON 97209		
CODE	INTERNATIONAL BUILDING CODE, 2003 ED.	OREGON SPEC. CODE, 2004	
OCCUPANCY	A	B	R
DIVISION	1	2	3
OCCUPANCY	A	B	R
DIVISION	1	2	3
OCCUPANCY	A	B	R
DIVISION	1	2	3
CONSTRUCTION	TYPE IA	TYPE II	TYPE III
COMBUSTIBLE	NON-COMBUSTIBLE		
FIRE-RESISTIVE	1-HOUR	N	H.T.
SEISMIC ZONE	1	2	3
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES		
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED)	SQ. FT./FLOOR/BUILDING :	TABLE 503
APPLICABLE AREA INCREASE	NOT USED	SQ. FT./FLOOR/BUILDING	CODE REF. : 504.2, 505.1.3 & 505.3
TOTAL PROJECT FLOOR AREA	190,044	SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)	
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED)	STORY(IES)	(UNLIMITED)
		FEET:	TABLE 503
	BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)		

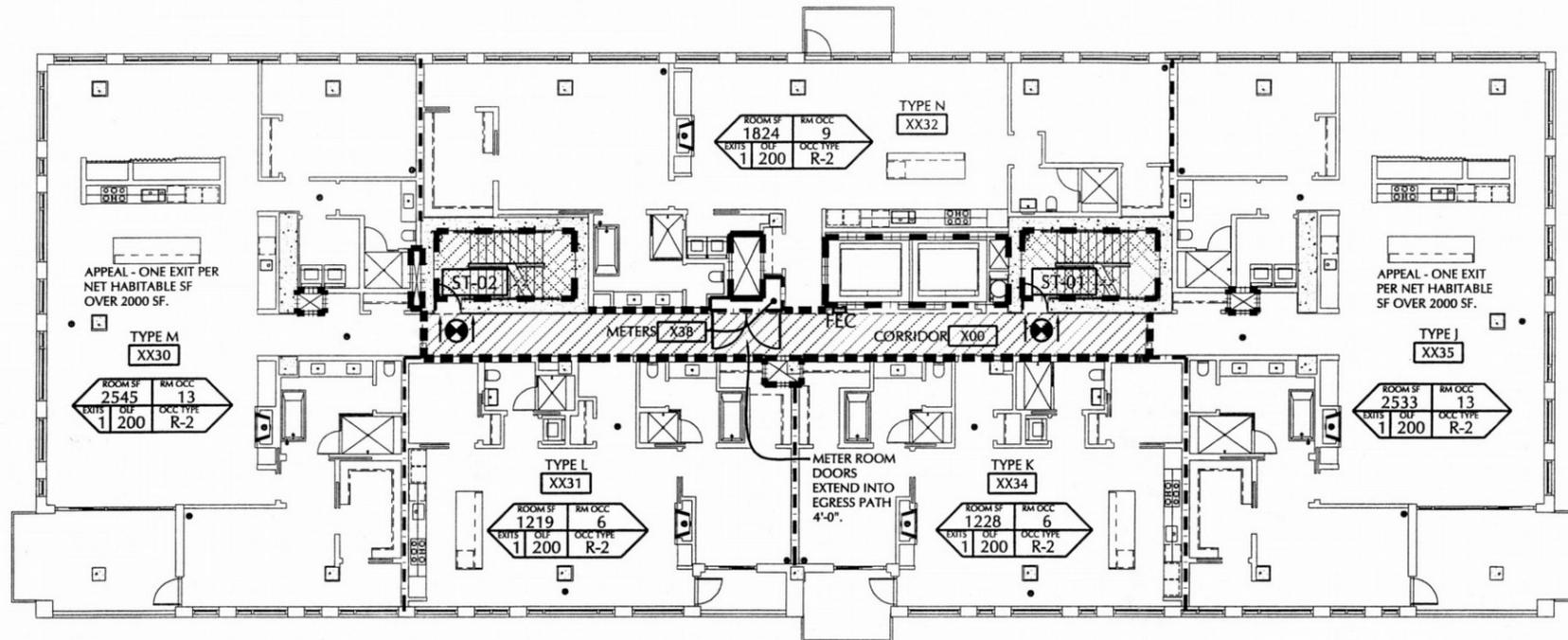
PROJECT DESCRIPTION	W&K DEVELOPMENT	
RESIDENTIAL	NO. OF UNITS	114
RETAIL	TOTAL SF	11,167 SF
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)
	VAN ACCESSIBLE	1 TOTAL
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT
		20,806 SF/ GROUND FLOOR
	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/floor)
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (11,570 SF/floor)
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT
		190,044 SF/ TOTAL PROJECT W/O BASEMENT
		175,143 SF/ TOTAL RESIDENTIAL

FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)	
STRUCT. FRAME	3 HOUR
BRG. WALLS	3 HOUR
FLOOR CONSTRUCTION	2 HOUR
ROOF CONSTRUCTION	1 1/2 HOUR

WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY	
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE OVER 30 FEET
	ONE HOUR(S) LESS THAN 10 FEET
	TWO HOUR(S) LESS THAN FEET/ NOT USED
PROJECT	60 FT. R.O.W. AT 9TH, 10TH & GLISAN
	STREET FRONT WALLS - NC
	6" SEISMIC SETBACK NORTH PROPERTY LINE

APPEALS		
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS
10/26/06	APPEAL #3205	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.
1/5/07	#3514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH

ZONING	
LAND USE ZONING	Exd (CCPD)
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING
SETBACKS	FRONT 0 FEET
	SIDE INTERIOR 0 FEET
	CORNER 0 FEET
	REAR 0 FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS plus BASEMENT XX FEET PROJECT
PARKING	MIN NONE VEHICLE SPACES
	MAX NONE VEHICLE SPACES
LANDSCAPE	MIN NONE %



## CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: 58 1/2"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

## NOTES

### BUILDING ENTRY DOOR HARDWARE OPERATION

- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
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## LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FIRE EXTINGUISHER
- FULLY RECESSED FIRE EXTINGUISHER CABINET
- FIRE PULL STATION
- FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

# LIFE SAFETY PLAN - 15TH & 16TH FLOOR

LS  
S15\_16 1" = 20'-0"

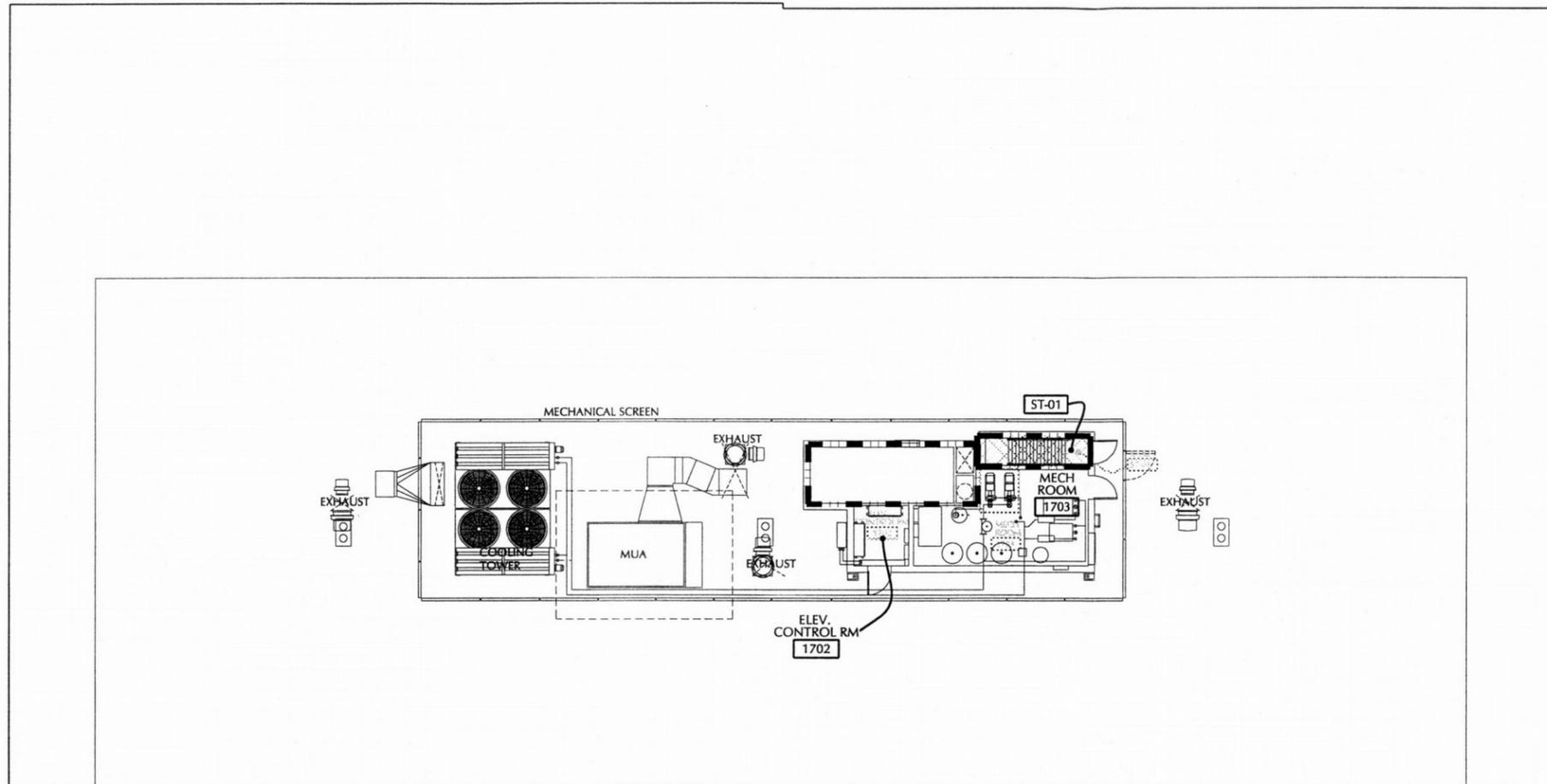


2.23.2006 REV. 7.27.2006  
REV. 1.5.2007

937  
condominiums

# BUILDING DATA

PROJECT NAME	937 CONDOMINIUMS		
ADDRESS	937 NW GLISAN		
LOCATION	PORTLAND, OREGON 97209		
CODE	INTERNATIONAL BUILDING CODE, 2003 ED.	OREGON SPEC. CODE, 2004	
OCCUPANCY	A B E F H I M R S U SR		
DIVISION	1 2 3 4 5 6 7		
OCCUPANCY	A B E F H I M R S U SR		
DIVISION	1 2 3 4 5 6 7		
OCCUPANCY	A B E F H I M R S U SR		
DIVISION	1 2 3 4 5 6 7		
CONSTRUCTION	TYPE IA TYPE II TYPE III TYPE IV TYPE V		
	COMBUSTIBLE NON-COMBUSTIBLE		
	FIRE-RESISTIVE 1-HOUR N H.T. FULLY SPRINKLERED		
SEISMIC ZONE	1 2 2b 3 4		
SITE SIZE	20,000 SQ. FT. / 0.46 ACRES		
MAX. ALLOWABLE FLOOR AREA	(UNLIMITED)	SQ. FT./FLOOR/BUILDING :	TABLE 503
APPLICABLE AREA INCREASE	NOT USED	SQ. FT./FLOOR/BUILDING	
		CODE REF. :	504.2, 505.1.3 & 505.3
TOTAL PROJECT FLOOR AREA	190,044	SQ. FT./FLOOR/BUILDING (EXCLUDES BASEMENT)	
MAX. ALLOWABLE HEIGHT (IBC)	(UNLIMITED)	STORY(IES)	(UNLIMITED) FEET: TABLE 503
	BUILDING IS 16 STORY 173'-0" FEET (FROM LOWEST GRADE)		
PROJECT	W&K DEVELOPMENT		
DESCRIPTION	SIXTEEN STORY MULTI-FAMILY HOUSING WITH TWO LEVELS OF BELOW GRADE PARKING AND GROUND FLOOR RETAIL.		
RESIDENTIAL	NO. OF UNITS	114	
RETAIL	TOTAL SF	11,167 SF	
PROJECT PARKING	FLOOR AREA	45,556 SF/ BASEMENT L2 & BASEMENT L1	
	NO. OF STALLS	135 TOTAL (INCLUDES ACCESSIBLE SPACES)	
	ACCESSIBLE	3 TOTAL (INCLUDES VAN)	
	VAN ACCESSIBLE	1 TOTAL	
BUILDING AREAS	GROSS FLOOR AREAS	45,556 SF/ BASEMENT	
		20,806 SF/ GROUND FLOOR	
	(SF INCL. DECKS)	152,003 SF/FLOOR 2-14 (11,693 average/floor)	
	(SF INCL. DECKS)	23,140 SF/ FLOORS 15-16 (1,570 SF/floor)	
	(MECHANICAL)	350 SF/ ROOF FLOOR AREA	
		235,600 SF/ TOTAL PROJECT INCL. BASEMENT	
		190,044 SF/ TOTAL PROJECT W/O BASEMENT	
		175,143 SF/ TOTAL RESIDENTIAL	
FIRE RESISTANCE REQ. OF BUILDING ELEMENTS (FROM TABLE 601)			
STRUCT. FRAME	3 HOUR		
BRG. WALLS	3 HOUR		
FLOOR CONSTRUCTION	2 HOUR		
ROOF CONSTRUCTION	1 1/2 HOUR		
WALL & OPENING PROTECTION BASED ON LOCATION ON PROPERTY			
FIRE RESISTANCE OF EXT. WALLS (TABLE 602)	NON-COMBUSTIBLE	OVER	30 FEET
	ONE	HOURS) LESS THAN	10 FEET
	TWO	HOURS) LESS THAN	FEET/ NOT USED
PROJECT	60 FT. R.O.W.	AT 9TH, 10TH & GLISAN	
		STREET FRONT WALLS - NC	
	6' SEISMIC SETBACK	NORTH PROPERTY LINE	
APPEALS			
3/29/06	APPEAL #2707	ELEVATOR SHAFT PRESSURIZATION	
3/29/06	APPEAL #2707	SUB-DUCTED EXHAUST @ VERTICAL SHAFTS	
10/26/06	APPEAL #3305	OMIT F.S.D. AT EMERGENCY GENERATOR ROOM	
4/26/06	APPEAL #2811	75 FOOT EXIT DISTANCE WITHIN UNIT	
4/24/06	APPEAL #2802	1 EXIT FOR UNITS OVER 2,000 S.F.	
1/5/07	APPEAL #3514	DOORS AT METER ROOM OPEN ONTO EGRESS PATH	
ZONING			
LAND USE ZONING	Exd (CCPD)		
USE	MIXED USE - RETAIL / RESIDENTIAL / PARKING		
SETBACKS	FRONT	0	FEET
	SIDE	0	FEET
	CORNER	0	FEET
	REAR	0	FEET
MAX. ALLOWABLE HEIGHT (ZONING)	175' W/ HSG BONUS		
	plus BASEMENT	XX	FEET PROJECT
PARKING	MIN	NONE	VEHICLE SPACES
	MAX	NONE	VEHICLE SPACES
LANDSCAPE	MIN	NONE	%



## CODE REQUIREMENT MINIMUMS:

- CORRIDOR WIDTH  
MIN. REQUIRED: 44" MIN.  
ACTUAL: 58 1/2"
- STAIR WIDTH  
MIN. REQUIRED: 44"  
ACTUAL: 45"
- REQUIRED FLOOR/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 12" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- REQUIRED ROOF/CEILING FIRE RESISTIVE CONSTRUCTION: 2-HR. ACTUAL 7 1/2" - 10" CONCRETE EQUALS 4-HR. MINIMUM FIRE RESISTIVE RATING.
- DOOR RATINGS:  
@ UNIT ENTRIES ARE 20 MINUTE W/ GASKETS & CLOSERS;  
@ TRASH ROOM/ELEC. ROOM/FIREMAN'S CONTROL CENTER ARE 60 MINUTE W/ GASKETS & CLOSERS;  
@ STAIRS/ELEVATOR ARE 90 MINUTE W/ GASKETS & CLOSERS.
- ALL SHAFTS - MECHANICAL, STAIR AND ELEVATOR ARE OF 2-HR FIRE RESISTIVE CONSTRUCTION, SEE PLANS FOR LOCATION.
- EXIT PASSAGEWAY BEYOND STAIRWELL RATED 2 HOUR; CORRIDOR WALL RATING: 30 MINUTE.

## NOTES

### BUILDING ENTRY DOOR HARDWARE OPERATION

- IN ADDITION TO STANDARD PUSH/PULL HARDWARE AT THE BUILDING ENTRY DOORS, ELECTRIC MAGNETIC LOCKS ARE TO BE PROVIDED THAT ARE DEACTIVATED BY CARD READERS ON THE EXTERIOR AND PROXIMITY SENSORS ON THE INSIDE. THE MAGNETIC LOCKS ARE TIED TO THE FIRE ALARM SYSTEM AND BECOME DEACTIVATED (UNLOCKED) IN THE EVENT THE FIRE ALARM SYSTEM IS ACTIVATED.
- THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOP MATERIALS/ASSEMBLIES WHICH WILL BE USED, THE TYPE OF PENETRATIONS WHERE EACH MATERIAL/ASSEMBLY WILL BE USED; AND THE LISTING AND APPROVAL INFORMATION (I.E. UL, ICBO, ICC OR OTHER APPROVED REPORT/LISTING NUMBERS.) THIS INFORMATION MUST BE SUBMITTED TO, AND APPROVED BY, THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

## LEGEND:

- 2-HR RATED STAIR ENCLOSURE OR EXIT PASSAGEWAY WITH 90 MIN DOORS
- 30 MINUTE RATED CORRIDOR WITH 20 MIN DOORS
- EXIT LIGHT W/ SIGNAGE ORIENTATION & PATH OF EGRESS
- FIRE EXTINGUISHER
- FULLY RECESSED FIRE EXTINGUISHER CABINET
- FIRE PULL STATION
- FIRE PROTECTION STANDPIPE, AT MAIN LANDINGS IN EACH STAIR CORE
- UNIT SMOKE DETECTORS, SEE ELECTRICAL DRAWINGS FOR ADDTL. INFO.
- 30-MIN RATED WALL WITH 20-MINUTE DOORS
- 1-HR RATED WALL WITH 60-MINUTE DOORS
- 2-HR SHAFT AND EXIT ENCLOSURE WALLS WITH 90-MINUTE DOORS

# LS LIFE SAFETY PLAN - ROOF

LS-R 1" = 20'-0"



5.23.2006 REV. 7.27.2006  
REV. 1.5.07

# 937

condominiums

**Section III**

**Smoke Management Control Matrix**

LSS FUNCTIONAL MATRIX

SYSTEM INPUTS		SYSTEM OUTPUTS																											Notes					
		Control Panel			Notification							Dialer			Control											Notes								
		Alarm Alert	Supervisory Alert	Trouble Alert	Residential Units	Floor of Alarm	Floors Above Alarm Floor	Floors Below Alarm Floor	Elevator Cars	Stairways Serving Alarm Floor	Selected Zone(s)	Elevators Hazardous to Use	To Supervising Station	To Supervising Station	To Supervising Station	To Primary Recall Floor	To Alternate Recall Floor	Floors Above Alarm Floor	Alarm Floor	Roof	Roof fan discharge to elevator hoistway	Roof	Roof	Roof	In Egress Paths		For Stand Pipe & Sprinkler Risers	Garage Exhaust EF-1,2,3,4						
Component	Component	Component	Evacuation Signals	Evacuation Signals	Emergency Page	Distinct Signal in CCS	Alarm Alert via Dialer	Supervisory Alert via Dialer	Trouble Alert via Dialer	Held Open Door Release	Recall Elevators	Recall Elevators	Elevator Power Shut-Off	Open Floor Pressurization Dampers	Close Corridor Smoke Dampers	Stairway Pressurization Fans On	Elevator Pressurization System On	Condo Makeup Air Supply Fans Off	Condo Subduct Exhaust Fan On	Unlock Doors	Start and Run Emergency Generator	Activate Fire Pump	Garage Exhaust Fans Off											
Device	Location	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC				
Manual Pull Station		1	•		•	•	•	•	•			•				•	•					•	•			•								
Area Smoke Detector	Residential Corridors	2	•		•	•	•	•	•			•				•	•			•	•	•	•	•	•	•								
Area Smoke Detector	Elevator Lobby (Non-primary Recall)	3	•		•	•	•	•	•			•				•	•			•	•	•	•	•	•	•								
Area Smoke Detector	Elevator Lobby (Primary Recall)	4	•		•	•	•	•	•			•				•	•			•	•	•	•	•	•	•								
Area Smoke Detector	Elevator Machine Room	5	•									•	•			•																		
Area Smoke Detector	Top of Elevator Hoistway	6	•									•	•			•																		
Duct Smoke Detector		7	•																				•	•										
Heat Detector	At Sprinkler Head in Elevator Hoistway	8	•									•	•				•															D= Power shuts down after the elevator reaches it's recall floors.		
Heat Detector	At Sprinkler Head in Elevator Machine Rm.	9	•									•	•				•															D= Power shuts down after the elevator reaches it's recall floors.		
		10																																
Waterflow Switch	Standpipe and Sprinkler Zone	11	•		•	•	•	•	•	•		•							•	•	•	•	•	•	•	•								
Tamper Switch	Sprinkler Zone Control Valves	12	•													•																		
Tamper Switch	Fire Protection Sprinkler Main in Water Entry Rm	13	•													•																		
Monitor Module	Fire Pump Running	14	•													•																		
Monitor Module	Fire Pump Power Failure	15	•													•																		
Monitor Module	Emergency Generator Running	16	•													•																		
Comm Device Activation	Stairway	17	•													•																		
Comm Device Activation	Elevator	18	•													•																		
Manual Switch in FCS	Stairway Pressurization	19	•													•																		
Manual Switch in FCS	Elevator Hoistway Pressurization	20	•													•																		
Manual Switch in FCS	Fire Pump	21	•													•																		
		22																																
Manual Switch in FCS	Emergency Page to Selected Zones	23	•									•				•																		
Manual Switch in FCS	Emergency Page to All Zones	24	•									•				•																		
Manual Switch in FCS	Run Emergency Generator	25	•													•											•							
Loss of Electrical Power	From Utility	26	•													•											•							
Water Pressure Loss	On Sprinkler System	27	•													•																		
FA Normal Power Failure		28		•												•																		
FA System Low Battery		29		•												•																		
Open Circuit on FA Loop		30		•												•																		
Ground Fault on FA Loop		31		•												•																		
Notification Appliance Short Circuit		32		•												•																		

Abbreviations: Comm= Communication. CCS = Central Command Station. FA = Fire Alarm.

#### IV. APPEALS

##### A. Index of Appeals

3/29/06          B-003          ID #2707 Item 1  
Elevator Pressurization in lieu of Elevator Lobbies – APPROVED

3/29/06          B-003          ID #2707 Item 2  
Sub-duct System for Make-up Air - APPROVED

4/26/06          B-017          ID #2802  
One exit for residential units over 2,000 SF – APPROVED

4/26/06          B-001          ID #2811  
Travel distance within a residential unit - APPROVED

10/26/06        M-001          ID #2705 / 3067 / #~~33~~05  
Exhaust Air from Generator Room (Omit FSD) – APPROVED

01/05/07  
Doors at electrical meter room open into corridor egress path – SUBMITTED

##### B. Appeals attached

**APPEAL SUMMARY**

**STATUS:**

**Appeal ID:** 2707      **Type:** Building      **Project:**      **Appellant Name:** Bill Fink PE      **Hearing Date :** 3/29/2006  
commercial

**Project Address:** 937 NW Glisan St      **Case No:** B-003      **Phone:** 503-542-3608

**Stories:** 16 + 2 Occ: R, M, S      **Const Type:** 1A      **Plan Examiner/Inspector:** Rafael Goodblatt  
**Building/Business Name:** 937 Condos

**LUR/Permit/App:** 05-177355 DZM AD      **Plan Submitted Option:** mail      **Payment Option:** mail

**Appeal Involves:** Erection of a new structure      **Date Submitted:** 3/29/2006 10:36:42 AM

**CODE SECTION:** 707.14.1      Appeal ID# 2707      Date: 3/24/2006 7:47:56 AM      **Appeal Item # 1**

**REQUIRES:**

IBC 707.14.1 requires elevators to open into elevator lobbies, which are separated from the remainder of the building as required for rated corridor construction.

**PROPOSED DESIGN:**

The proposed design provides secondary doors on hold opens in the two levels of the parking garage as per section 3002.6. The design also provides elevator hoistway pressurization for the rest of the building to address goals of the code, rather than physical smoke resistive separation at the elevator lobbies. The hoistway pressurization system will consist of two redundant fans designed to inject outside air into the elevator hoistway. Both fans will be on emergency power. In addition a motorized damper will be installed in the supply duct of the pressurization fans per section 1317.4.3.3 and will be controlled as per section 1317.4.3.3.1.

**REASON FOR ALTERNATIVE:**

The proposed alternate is being requested because a typical elevator lobby would significantly impact the design presentation of the space, given the relatively small corridor system.

**CODE SECTION:** 716.5.3.1      Appeal ID# 2707      Date: 3/24/2006 8:00:29 AM      **Appeal Item # 2**

**REQUIRES:**

Requires shaft penetrations be protected with approved fire and smoke dampers. Exception 1 removes the requirements for fire dampers for steel exhaust subducts that extend at least 22 inches vertically and there is a continuous airflow upward to the outside. Exception 2 removes the requirement for smoke dampers in B occupancies only for bathroom exhaust subducts that extend at least 22 inches vertically and there is a continuous airflow upward to the outside. Thus I am appealing the requirement for smoke dampers in subducts.

**APPEAL SUMMARY****STATUS:**

**Appeal ID:** 2802      **Type:** Building      **Project:** commercial      **Appellant Name:** Mack Selberg      **Hearing Date :** 4/26/2006

**Project Address:** 937 NW Glisan St      **Case No:** B-017      **Phone:** 503-245-7700

**Stories:** 16 Occ: R2, S-2, A-3      **Const Type:** NA      **Plan Examiner/Inspector:** Ben Howell

**Building/Business Name:** 937 Condo Tower

**LUR/Permit/App:** 06-122197 CO      **Plan Submitted Option:** mail      **Payment Option:** mail

**Appeal Involves:** Erection of a new structure      **Date Submitted:** 4/26/2006 11:57:52 AM

**CODE SECTION:** IBC Section 1004 Occupant Load, Section 1013.3, Table 1004.1.2 & Table 1014.1

OSSC 907.2.10.1.2 OSSC 907.2.10.3.      Appeal ID# 2802      Date: 4/24/2006 11:05:12 AM

**Appeal Item # 1**

**REQUIRES:**

## Section 1004 Definitions:

Floor Area, Gross = The floor area within the inside perimeter of the exterior walls of the building under construction exclusive of vent shafts and courts, without deductions for corridors, stairways, closets, thickness of interior walls or other features...

Floor Area, Net = The actual occupied area not including unoccupied accessory areas such as corridors, stairs, toilet rooms, mechanical rooms, and closets.

Table 1004.1.2 – Residential Occupancy R2 = 200 gross floor area in SF per occupant.

Table 1014.1 – Spaces with one means of egress R Occupancy = 10 maximum occupant load requires two exits.

**PROPOSED DESIGN:**

937 is a 16 story mixed use condo Tower with one level of retail at ground floor and a 2 level under ground parking structure below grade. Project is construction Type 1A fully sprinklered with occupancy groups R-2, S-2 & A-3. The (4) Units that are being appealed for one exit exist only on Penthouse levels 15 and 16, on the east and west ends of the building.

Units "J" & "M" have Gross Square Footage that exceeds single exit code requirements for floor area. Historically, the definitions of Accessory Use and Habitable space combined to remove closets, pantries, baths, utility hookups and column spaces. We have removed these uninhabitable areas from units "J" & "M" to achieve a fair habitable space that is less than 2,000 s.f. and thus requires one exit.

Unit "J" = 2526.8 GSF, remove accessory spaces to achieve habitable space of 1965.6 s.f.

Unit "M" = 2538.9 GSF, remove accessory spaces to achieve habitable space of 1959.6 s.f.

The attached floor plans show Gross Square Footage and Square Footage after removing uninhabitable areas. Areas that have been removed from the total habitable space are hatched. Equivalent safety is provided by the lower habitable area, the low occupancy given the maximum (2) bedroom units (4 occupants) and the permanent nature of the dwelling adding a level of practice and speed to exiting.

**REASON FOR ALTERNATIVE:**

We propose that residential unit area should be calculated by floor area within the inside perimeter of the exterior walls and not include accessory areas such as closets, restrooms, utility rooms, pantry rooms, balconies, and terraces. Historically the code has allowed the subtraction of accessory areas, the logic being you can't occupy an accessory space such as a closet and a bedroom at the same time. (An accessory space serves the main room/area and an occupant cannot occupy both rooms at the same time.) In addition these units were designed to

accommodate a maximum of 2 possible bedrooms without a Den (1 master bedroom and 1 additional bedroom) with 2 occupants per bedroom, thus a total of 4 permanent residing occupants. We propose by this interpretation of the occupied unit area we are below the 2,000 SF/200 occupant load threshold that requires 2 exits per unit. Given a maximum occupancy scenario, 4 occupants would be able to escape quickly to the egress stairs.

**The Administrative Staff reviewed the appeal and the following decision was reached:**

1. Calculation area for determining occupant load: Granted in concept. The following accessory use areas may be deducted from the gross floor area to determine usable floor area:

- Exterior decks and balconies only accessible from within an individual dwelling unit.
- Bathrooms not exceeding 100 square feet in floor area.
- Closets, storage rooms and utility rooms not exceeding 50 square feet in floor area.
- The floor area occupied by built-in cabinets supported by the floor and attached to the surrounding walls such as kitchen cabinets, bookcases or entertainment centers.
- The floor area occupied by built-in appliances that are supported by the floor and that have permanent or semi-permanent construction enclosing or surrounding them such as a gas fireplace or built-in oven.
- The opening for a stairway at the upper floor(s) served by that stairway.
- The area of shafts or pipe chases measured from the centerline of walls enclosing the shaft or chase.
- The area of structural columns that are part of the building structural system. Area of column is measured from the unit side of any column enclosure.

End Of Hits

[top](#)

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**APPEAL SUMMARY****STATUS:**

**Appeal ID:** 2811      **Type:** Building      **Project:** commercial  
**Appellant Name:** Mack Selberg      **Hearing Date :** 5/3/2006  
**Project Address:** 937 NW Glisan St      **Case No:** B-001      **Phone:** 503-245-7700  
**Stories:** 16      **Occ:** R2, S-2, A-3      **Const Type:** 1A      **Plan Examiner/Inspector:** Ben Howell  
**Building/Business Name:** 937 Condominiums  
**LUR/Permit/App:** 06-122197-000-00-CO      **Plan Submitted Option:** mail      **Payment Option:** mail  
**Appeal Involves:** Erection of a new structure      **Date Submitted:** 5/3/2006 3:01:03 PM  
**CODE SECTION:** IBC 2003, Section 1013.3      **Appeal ID#** 2811      **Date:** 4/26/2006 4:29:34 PM      **Appeal Item #** 1

**REQUIRES:**

Section 1013.3 Common Path of Egress Travel. In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet.....

**PROPOSED DESIGN:**

937 is a 16 story mixed use condo Tower with one level of retail at ground floor and a 2 level under ground parking structure below grade. The Project is construction Type 1A fully sprinklered with occupancy groups R-2, S-2 & A-3. The Units that are being appealed for Path of Egress Travel Length comprise about HALF the units in the building. (All of the corner units and most penthouse units.)

Units "B" & "F" are typical of the travel distance from furthest point, to the unit entry doors. In most cases for corner units the travel distance is in the mid to high 80 ft range. The attached floor plans show the longest path of egress travel dashed.

Ratings around dwelling units and corridors all meet or exceed construction type I and R2 occupancy requirements. Smoke detection, sprinkler system and emergency controls meet or exceed requirements for building type and occupancy.

**REASON FOR ALTERNATIVE:**

We propose that residential unit egress travel length meet IBC 2006, Section 1014.3, Exception # 4, which extends the travel length to 125' feet. As condominiums grow in size, we are finding the 75' length, especially in the corner units, is difficult to maintain. Obviously, the 2006 IBC code has recognized that with all the other safeguards in place, (assembly ratings, sprinkler and smoke detection systems) the practiced egress path so well known by the dweller can be safely extended to 125'. In no case in the 937 building does a unit egress path extend beyond 100 feet. All egress paths in the non penthouse units are less than 90 feet. We request the egress path inside the units be extended to 100 feet.

**The Administrative Staff reviewed the appeal and the following decision was reached:**

1. Common path of egress travel: Granted as proposed, not to exceed 125 feet.

Reprint

**APPEAL SUMMARY****STATUS:** Mechanical Code Board of Appeal - Big Board**Appeal ID:** 3305  
commercial**Type:** Mechanical      **Project:****Appellant Name:** Bill Fink      **Hearing Date :** 10/2**Project Address:** 937 NW Glisan St      **Case No:** M-001**Phone:** 503-542-3608**Stories:** 16 +2      **Occ:** R, M, S      **Const Type:** 1A**Plan Examiner/Inspector:** Marcia Karr/Raphael Gc  
**Building/Business Name:****LUR/Permit/App:** Preliminary**Plan Submitted Option:** mail      **Payment Option:** n**Appeal Involves:** Erection of a new structure**Date Submitted:** 10/26/2006 11:15:48 AM**CODE SECTION:** IMC 701.3      **Appeal ID#** 3305      **Date:** 10/18/2006 3:54:45 PM**REQUIRES:**

Free circulation of air for fuel-burning appliances. NFPA Standard 110, paragraph 7.2.1.1 and 7.7.2.3 require generator room be 2-hour rated. Paragraph 7.7.2.3 stipulates "Fire dampers, shutters, or other self-closing do not be permitted in ventilation opening or ductwork for supply or return/discharge air."

**PROPOSED DESIGN:**

Proposed design removes the fire-smoke dampers from 2-hour rated enclosure. Both the exhaust louver and louver will be located at the wall of the generator room in the loading dock area. No cars will be within 10 feet louvers.

Sprinklering will be provided on both sides of the generator louvers, per Marcia Karr's (BDS MEC Engineer) recommendation.

**REASON FOR ALTERNATIVE:**

The removal of the fire-smoke dampers from the 2-hour rated walls of the generator room in needed to allow 1 generator to operate properly.

**The Administrative Staff reviewed the appeal and the following decision was reached**

1. Ventilation for generator: Denied. No new information has been provided that would change the decision from 3067. If the appellant wishes to pursue this matter further, the appellant may request a hearing before the Mec Board of Appeal by contacting the Appeals Secretary at 503-823-7335.

The Mechanical Code Board of Appeal met on 10-26-06 and the following decision was reached:

1. Ventilation for generator: Denied as proposed. The Board grants approval to an alternate design provided the conditions are met:

- a. No air is taken or exhausted into the loading dock area.
- b. All air is exchanged within the driveway ramp.
- c. The exhaust and outside air intake are separated by at least 10'.
- d. The outside air duct is being pulled within 5-8' of the gate.

Decision: Unanimous

Board Members: Andy McCann (Chair), Creighton Kearns, Dana Sheets

FILE # 303

## APPEAL SUMMARY

DATE 1.10.07

**STATUS:**

Appeal ID: 3514    Type: Building    Project: commercial    Appellant Name: Jennifer Jenkins    Hearing Date: 1/10/2007

Project Address: 937 NW Glisan St    Case No: B-007

Phone: 503-245-7100

Stories: 16 Occ: R2, S-2, M Const Type: 1A

Plan Examiner/Inspector: Raphael Goodblatt/Charles Auch

Building/Business Name: 937 Condos

LUR/Permit/App: 06-122197 CO

Plan Submitted Option: mail    Payment Option: mail

Appeal Involves: Erection of a new structure

Date Submitted: 1/10/2007 10:31:33 AM

CODE SECTION: IBC Section 1005 Egress Width    Appeal ID# 3514    Date: 1/8/2007 11:57:42 AM    Appeal Item # 1

**REQUIRES:**

Section 1005.2: Door opening into the path of egress travel shall not reduce the required width to less than one-half during the course of the swing. When fully open, the door shall not project more than 7 inches into the required width.

**PROPOSED DESIGN:**

937 is a 16 story mixed use condo tower with one level of retail at ground floor and 2 levels of underground parking below grade. Project is construction Type 1A fully sprinklered with occupancy groups R-2, S-2, and M. On each floor 2-16, there is a meter room with 4-foot wide door leafs which project into the corridor by that amount. This leaves 10 1/2" unobstructed when the door leaf is perpendicular to the opening. When fully opened, the meter room doors do not obstruct the required egress width of the corridor. To provide full safety to the meter reader, the door width is based on the width of the electrical room itself, hence the 4-foot wide door leafs.

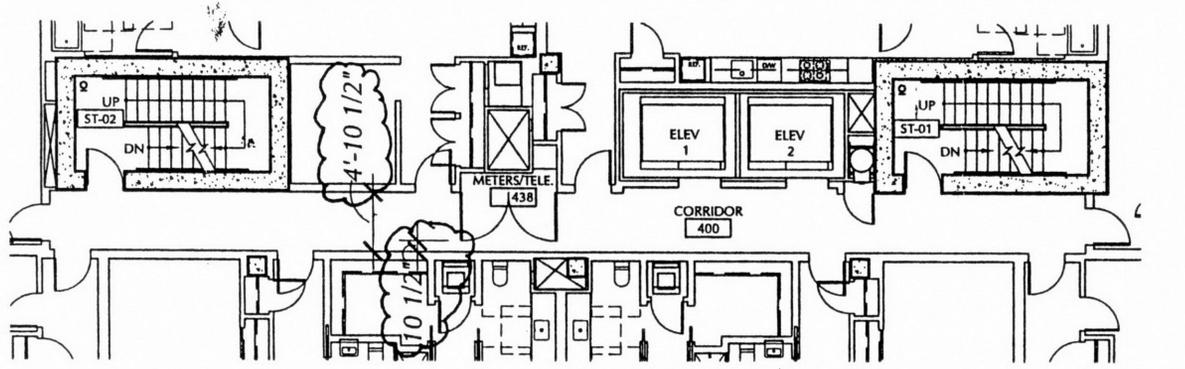
**REASON FOR ALTERNATIVE:**

Meter rooms are locked and only opened by qualified personnel. Doors will open briefly for meter reading once a month and maintenance checks twice a year. As mentioned above, when fully opened, the meter room doors do not obstruct the required egress width of the corridor. If the doors were open, half of the tenants are to the west of the doors and half are to the east allowing them full access to the closest stair without crossing the meter room at all. Width of the corridor is 4'-10 1/2" clear.

**The Administrative Staff reviewed the appeal and the following decision was reached:**

1. Door swing at corridor for meter room: Granted as proposed.

RECEIVED  
JAN 19 2007  
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DOCUMENT SERVICES



1 TYPICAL CORRIDOR  
1/16" = 1'0"

RECEIVED  
JAN 19 2007

BDS  
DOCUMENT SERVICES

PROJECT: JENNIFER JENKINS 1/5/2007 10:39 AM  
JENNIFER JENKINS  
GLISAN STREET CONDOS 054225/CD

**ANKROM MOISAN**  
ARCHITECTURE INTERIORS PLANNING  
6720 SW MACADAM, SUITE 100, PORTLAND, OREGON 97219  
PHONE 503-245-7100 | FAX 503-245-7710 | WWW.AMAA.COM

937 CONDOMINIUMS  
937 NW GLISAN  
PORTLAND, OR 97209

DATE: 1/5/07  
FILE: A2-04  
DWN: JJ  
CHK: JJ  
JOB: 054225