



THE PORT AUTHORITY OF NY & NJ

Engineering Department

## MINUTES OF MEETING

Date of Meeting: April 6, 2006  
Location: NYC Department of Buildings, 280 Broadway, New York  
Attendees: See Attached Attendance Sheet  
Subject: WTC Memorial and Museum

### Purpose:

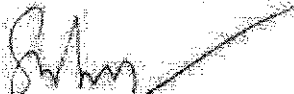
Discuss with the Department of Buildings the Means of Egress and code compliance plans, updated based on discussions at the previous meeting on 3/6/06.

### Discussion:

1. The actual number of occupants in the Memorial and Museum will be controlled through time ticketing and monitoring the entrance and departure of visitors. There are some inconsistencies in the projected actual occupant loads which LMDC's design team will verify and present the accurate information on the plans. The actual occupant load of both the Memorial and the Museum, which will be significantly lower than that based on occupant-area ratio in code table 6-2, can be the basis for design, as per code section 27-358(b), if the procedure for controlling and monitoring is properly documented and justified.
2. Although the Memorial is technically classified in F-2 occupancy due to its openness and functionality, the exit capacity from the Memorial complies with the requirement for an F-3 occupancy based on the actual occupant load. The memorial will be fully sprinklered and the primary travel distance is less, and the secondary travel distance nominally exceeds the maximum permitted travel distances for an F-3 occupancy.
3. All exit passageways from the Memorial and the Museum that are minimum 8 feet wide are "safe areas" and should be separated from the stair by a pair of doors.
4. The exit passageway along column line A at the north west corner of the Museum at E1 242' should be 8'-0" wide.
5. The safe areas, exit passageways, and stairs are enclosed in cast in place concrete walls. The exit passageways and stairs will be pressurized to prevent smoke infiltration. The scissor stairs (stairs A.1 and A.2) are also separated by 1'-0" thick concrete walls.

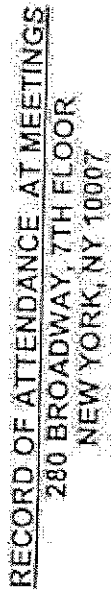
Gateway 3  
100 Mulberry Street  
New York, NY 10013

6. Exit passageway south of column line S-5 (at El. 285'-6") is sandwiched between the Memorial columns and the PATH electrical substation. It is 5' 0" wide due the physical limitations. In the present design, stair B-1 discharges occupants from the Museum to this exit passageway and this also serves as an exit from the Memorial. LMDC's design team will explore if stair B-1 can be extended up to the street level and not discharge to this exit passageway.
7. The exit passageways West of column lines 10.5 and 11.6 at El. 285'-6", will be increased to 8 feet wide to qualify as safe area.
8. The construction classification of the Museum is Type 1C and it is fully sprinklered. The Museum main level at El. 242 and the continuous ramp through an open space that connects it to the lobby at El. 293' qualifies as an unlimited area space, as permitted by code for fully sprinklered Type 1C construction. Nonetheless, the museum will be provided with smoke control system, fire alarm and communication systems, standpipes, sprinklers, emergency power and other additional fire safety requirements for an atrium.
9. The Port Authority and LMDC's design team will meet again with the Department of Buildings during the week of April 17 to discuss resolution of the items discussed at this meeting.



Saroj Bhol, P. E.  
Manager, Design Standards  
Quality Assurance Division  
The Port Authority of NY & NJ

Cc: Attendees



SUBJECT: WTA Memorial Eggeds

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