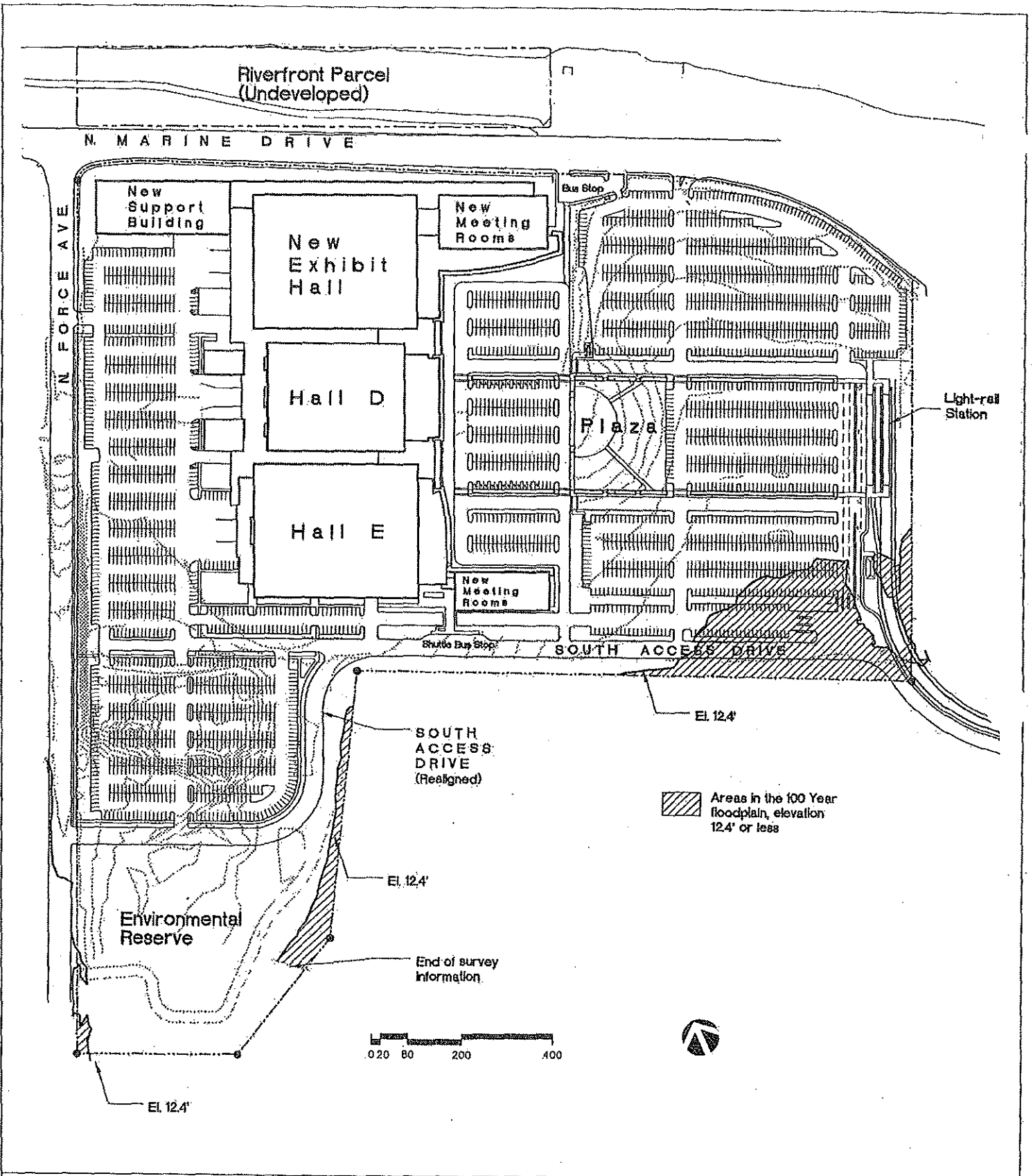


**Expo Master Plan**  
**Floodplain Documentation**

This section provides documentation on the current floodplain status in the vicinity of the Expo site.

As explained on page 2 of the attached letter from the Federal Emergency Management Agency (FEMA), the floodplain near the subject site has been modified by FEMA to 11 feet NGVD, or 12.4 feet COP Datum. This is also confirmed by the attached OPDR memorandum. Finished floor elevations for Expo buildings have been established at 30 feet, and are approximately 17.6 feet above the floodplain.



# EXPO MASTER PLAN

# Yost Grube Hall

Architecture

Figure H-1  
100 Year Floodplain Elevation



# Federal Emergency Management Agency

Washington, D.C. 20472

RECEIVED  
MAR 04 1999  
FOLLOWED

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

IN REPLY REFER TO:  
Case No.: 99-10-085P

The Honorable Vera Katz  
Mayor, City of Portland  
1221 Southwest Fourth Avenue, Room 340  
Portland, OR 97204

Community: City of Portland, Oregon  
Community No.: 410183  
Panels Affected: 0010 D and 0020 D  
Effective Date of **MAR 01 1999**  
This Revision:

102-D-A

Dear Mayor Katz:

This responds to a request that the Federal Emergency Management Agency (FEMA) revise the effective Flood Insurance Rate Map (FIRM) for your community in accordance with Part 65 of the National Flood Insurance Program (NFIP) regulations. In a letter dated October 30, 1998, Mr. Howard B. Jones, P.E., Chief, Engineering and Construction Division, U.S. Army Corps of Engineers, Northwestern Division, requested that FEMA revise the FIRM to show the effects of levee improvements along the Columbia River from just upstream of the Burlington Northern Railroad (BNRR) to just downstream of Interstate Highway 5 (I-5) between the Columbia River and Columbia Slough. The BNRR embankment in the southwest corner of Peninsula Drainage District No. 1 (District 1) was reinforced with fill placed on its landward side and a portion of the fill was buttressed by a gabion wall so that the BNRR embankment provides protection as part of the levee system. Improvements were also made to the pump station located at the southern boundary of District 1 adjacent to the Columbia Slough, including replacing and relocating the outlet pipe and retrofitting the existing pumping facilities.

All data required to complete our review of this request were submitted with letters from Mr. David Crawford, P.E., Project Engineer, Crawford Engineering Associates, and Mr. Jones. Because this Letter of Map Revision (LOMR) shows the effects of a federally sponsored flood-control project where 50 percent or more of the project's costs are federally funded, fees were not assessed for the revision.

We have completed our review of the submitted data and the flood data shown on the effective FIRM. We have revised the FIRM to modify the elevations, floodplain boundary delineations, and zone designations of the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood) within District 1 along the Columbia River. As a result of the modifications, the base flood elevations (BFEs) within District 1 along the Columbia River, from just upstream of the BNRR to just downstream of I-5 between the Columbia River and Columbia Slough, decreased, and the width of the Special Flood Hazard Area (SFHA), the area that would be inundated by the base flood, decreased. This area is now protected from the base flood by levee, dike, or other structures subject to possible failure or overtopping by larger floods. The modifications are shown on the enclosed annotated copies of FIRM Panel(s) 0010 D and 0020 D. This LOMR hereby revises the above-referenced panel(s) of the effective FIRM dated January 3, 1986.

The modifications are effective as of the date shown above. The map panel(s) as listed above and as modified by this letter will be used for all flood insurance policies and renewals issued for your community.

The following table is a partial listing of existing and modified BFEs:

Location	Existing BFE (feet)*	Modified BFE (feet)*
Just upstream of BNRR	28	11
Just downstream of I-5 within District 1	28	11

\*Referenced to the National Geodetic Vertical Datum, rounded to the nearest whole foot

Public notification of the modified BFEs will be given in *The Oregonian* on or about March 19, 1999 and March 26, 1999. A copy of this notification is enclosed. In addition, a notice of changes will be published in the *Federal Register*. Within 90 days of the second publication in *The Oregonian*, a citizen may request that FEMA reconsider the determination made by this LOMR. Any request for reconsideration must be based on scientific or technical data. All interested parties are on notice that, until the 90-day period elapses, the determination to modify the BFEs presented in this LOMR may itself be modified.

Because this LOMR will not be printed and distributed to primary users, such as local insurance agents and mortgage lenders, your community will serve as a repository for these new data. We encourage you to disseminate the information reflected by this LOMR throughout the community, so that interested persons, such as property owners, local insurance agents, and mortgage lenders, may benefit from the information. We also encourage you to prepare a related article for publication in your community's local newspaper. This article should describe the assistance that officials of your community will give to interested persons by providing these data and interpreting the NFIP maps.

We will not physically revise and republish the FIRM for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

Because this revision does not involve floodway changes, we are not revising the Flood Boundary and Floodway Map (FBFM); therefore, no annotated copies of the FBFM are enclosed. Unless a subsequent physical map revision involves floodway changes for the FBFM panel(s), we will not revise the FBFM to show the modifications described in this LOMR.

This LOMR is based on minimum floodplain management criteria established under the NFIP. Your community is responsible for approving all floodplain development, and for ensuring all necessary permits required by Federal or State law have been received. State, county, and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction in the SFHA. If the State, county, or community has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP criteria.

This determination has been made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (Public Law 93-234) and is in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, Public Law 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria are the minimum requirements and do not supersede any State or local requirements of a more stringent nature. This includes adoption of the effective FIRM to which the regulations apply and the modifications described in this LOMR.

FEMA makes flood insurance available in participating communities; in addition, we encourage communities to develop their own loss reduction and prevention programs. Our Project Impact initiative, developed by FEMA Director James Lee Witt, seeks to focus the energy of businesses, citizens, and communities in the United States on the importance of reducing their susceptibility to the impact of all natural disasters, including floods, hurricanes, severe storms, earthquakes, and wildfires. Natural hazard mitigation is most effective when it is planned for and implemented at the local level, by the entities who are most knowledgeable of local conditions and whose economic stability and safety are at stake. For your information, we are enclosing a Project Impact Fact Sheet. For additional information on Project Impact, please visit our Web site at [www.fema.gov](http://www.fema.gov).

If you have any questions regarding floodplain management regulations for your community or the NFIP in general, please contact the Consultation Coordination Officer (CCO) for your community. Information on the CCO for your community may be obtained by contacting the Director, Mitigation Division of FEMA in Bothell, Washington, at (206) 487-4682. If you have any technical questions regarding this LOMR, please contact Mr. Max Yuan of our staff in Washington, DC, either by telephone at (202) 646-3843 or by facsimile at (202) 646-4596.

Sincerely,

*MLL 10 [Signature]*

Max H. Yuan, P.E., Project Engineer  
Hazards Study Branch  
Mitigation Directorate

For: Matthew B. Miller, P.E., Chief  
Hazards Study Branch  
Mitigation Directorate

Enclosure(s)

cc: Mr. Howard B. Jones  
Chief, Engineering and  
Construction Division  
U.S. Army Corps of Engineers

Mr. Dave Hendricks ✓  
Peninsula Drainage District No.1  
Multnomah County Drainage District

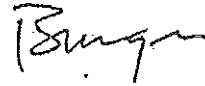
Mr. Bryant Enge  
Office of Finance and Administration  
City of Portland

Mr. David Crawford, P.E.  
Project Engineer  
Crawford Engineering Associates

Memorandum

To: Chuck Stalsberg, Plan Review Division

From: Steven Burger, Site Development (823-7539)



Date: November 24, 1999

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Case: LUR99-00815 CU DZ AD EXPO Hall 'D'  
Location: 2044-60 N Marine Dr  
Permits: BLD96-02065 (issued - grading permit for EXPO center)  
BLD96-01505 (finaled - partial permit for foundation/site utilities)  
BLD96-01517 (finaled - new exhibition hall)

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FLOODPLAIN - The EXPO Center used to be located entirely within the 100-yr floodplain of the Columbia River and Columbia Slough system. (See the attached spliced copy of the FEMA FIRM Panels 410183 0020 D and 0010 D, dated January 3, 1986.) The FEMA 100-year flood elevation in the area of the subject site was approximately 29.4 feet COP Datum. The finished floor elevation of the Hall 'E' was constructed at 33.25 feet COP datum.

FEMA has issued a Letter of Map Revision addressing the EXPO site and surrounding properties. Site Development got hold of a copy of the notification, courtesy of this applicant, that was sent to all non-regulating agencies involved. (See attached copy of the FEMA LOMR, effective date March 1, 1999.) The floodplain changes apparently result from improvements made to the Columbia River levee, the Burlington Northern embankments and to the Drainage District pumping capacity.

The revised BFE for the EXPO site is now 11 feet NGVD, or 12.4 feet COP Datum.