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John M. Lewis
Public Works Director
City of Oregon City
625 Center Street
Oregon City, OR 97045

RE: OCPW Fir Street Facility – New Construction vs. Renovation

John:

Having toured the facility at 13895 Fir Street and studied options for adapting it to meet the needs of the Public Works and Parks Departments, it is our opinion that the best course of action would be to demolish the existing office wing in the front of the building and a portion of the warehouse (approx.. 16,000 sf) in order to allow a new office wing to be built that is tailored to the needs of those departments. This section of the warehouse was an addition to the original building, so there is a natural structural break at the point.

Our reasoning for recommending demolition is as follows:

Existing Office Wings

- The existing layout is not conducive to OCPW Division team work areas. The building is light wood-framed construction divided into numerous small offices and rooms, and it is composed of two disconnected wings, separated by a warehouse space. In order to remodel it to fit the needs of OCPW, there would be few interior walls remaining.
- In order to rewire the building to meet current technology needs, most of the wall and ceiling surfaces would have to be removed.
- The low ceilings are not ideal for a modern office building. Lower ceilings allow less light to penetrate into the space. That results in more frequent use of artificial lighting and higher energy costs.
- Based on the age of the facility, it is likely built to far lower energy efficiency standards (including insulation and windows) than the current State Energy Code. The existing windows are single-glazed and would need to be replaced.
- The existing building is sprinklered, but all of the distribution piping would have to be changed to accommodate the new office layout.

Existing Warehouse Section

- In order to connect the two office wings and provide adequate space for Parks and Public Works, the warehouse section between them would have to be converted to offices. That portion of the building is too deep to accommodate an efficient office layout, and it would be difficult to provide natural light to offices and major spaces.

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- Skylights could be added, but in order to provide natural light to the first floor, an atrium would likely be required which would result in an inefficient use of space.
- The existing exterior walls are tilt-up concrete with no windows. Openings can be cut into the walls, but they are generally limited to small penetrations spaced far apart. The window sizes and spacing would result in an inefficient office layout.
- Adding two stories of office within the frame of the existing building would require relatively low ceilings on each floor after factoring in plenums for ductwork and utilities.
- The existing concrete floor has significant cracking and slopes to a linear drain. Large floor sections would need to be removed and replaced, or the entire floor would need to be replaced.
- Due to the extent of the renovation, it is likely that the building would have to be brought up to current Oregon Energy Code standards. Tilt-up concrete walls have very little insulating value, so a secondary insulated, framed wall would have to be built on the interior side of the tilt-up walls. Buildings of that vintage have inadequate roof insulation which would have to be significantly upgraded.
- Converting the existing warehouse to offices would require a change of occupancy from an industrial use to office use which is a higher hazard class. This would likely require a seismic evaluation and upgrade. Rough Order-of-Magnitude cost of seismic upgrades is $40-50/ square foot.
- All of the HVAC system would have to be redesigned and replaced. An HVAC renovation is usually more difficult and expensive per square foot than new construction.
- To meet ADA regulations, an elevator would have to be added to the building. It is generally more expensive to add an elevator in an existing building than in a new one. The new elevator would have an overrun which would extend through the roof. Combined with the penetrations needed for plumbing vents and a new HVAC system, the roof membrane could be more prone to leaks. The code only requires that 25% of the value of the remodel be allocated for ADA upgrades. However, if the City wants to be in full compliance with ADA regulations, the amount of upgrades to toilet rooms, kitchens, doorways, etc. would be significant and costly.
- The building has no historic value or significance, which is often a rationale for preserving an inefficient building.

Advantages of New Construction

- Building a new office wing would allow it to be built closer to the road, bringing it more in compliance with current zoning and giving the facility a stronger public presence on the street. The new building would be narrower, which would allow more yard and/or parking spaces on the site.
- It could be built to a higher energy standard, which would reduce long term operating costs.
- It could be built using more sustainable materials and methods.
- It could easily and less expensively meet ADA regulations.
- Based on the structural report from KPFF Engineering, the existing building has a 50 year life-span. A new building would be closer to a 100 year life-span.

- Building a new building to meet current seismic standards is much easier than retrofitting an existing building to meet them.
- The cost of new construction is more predictable than renovation. Unknown conditions inevitably arise for renovations during discovery. For that reason, the contingency for new construction, in the cost comparisons below, is lower than for renovation.
- Overall, new construction would better fit the current and future needs of OCPW.
- In our opinion, the 9% estimated savings to renovate instead of building new (below) does not justify the compromises enumerated above.

Cost Comparison (Rough Order-of-Magnitude Direct Construction Cost)

New Construction (not including site costs)	
$220/sf x 25,290 sf (assuming tilt-up const) =	$5,563,800
Demolition: ($4-8/sf) $6/sf x $25,000 sf =	$150,000
Sub-Total:	$5,713,800
Escalation (1 year) at 8%: 5,713,800 x 1.08 =	457,104
Sub-Total:	$6,170,904
Estimating Contingency at 15% =	925,636
Total:	**7,096,540**
Renovation (not including site costs)	
Cost of renovation: $150/sf x 25,290 sf =	$3,793,500
Additional costs	
Seismic upgrade to warehouse section: $50/sf x 16,000 sf =	800,000
Sawcut window openings in tilt-up concrete walls:	80,000
Upgrade warehouse portion to meet Oregon Energy Code: $20/sf x 16,000 =	320,000
Sub-Total:	$4,993,500
Escalation (1 year) at 8%. 4,993,500 x 1.08 =	399,480
Sub-Total:	$5,392,980
Estimating Contingency at 20% =	1,078,596
Total:	**6,471,576**

Please let me know if you have any questions.

Sincerely,

David Hyman
Principal