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January 29, 2024

Andy Higgins
Engineering Services Director, SDCI
Seattle Department of Construction and Inspections
701 5th Ave, Suite 2000
Seattle, WA 98104

Subject: Sound Transit/WABO Partnering Proposal

Dear Mr. Higgins,

Sound Transit (ST) respectfully requests a dialogue with WABO Executive Leadership to discuss a partnering proposal between our organizations. Our capital expansion program Sound Transit 3 (ST3) places enormous burden on our agency regulatory partners as well as strains the agency's resources and capacity. As we're looking internally at ways to streamline our light rail station designs for better consistency we believe there is an opportunity to invite our regulatory partners into this conversation.

Problem Statement:

Light rail stations are the vertical, publicly accessible portion of an otherwise linear transportation system, making them uniquely complex structures with features that are generally uncommon relative to conventional vertical structures. These features may vary based on station type, location and built environment. As most occupied structures as defined by the building code are generally regarded as destinations, light rail stations in particular are inherently transitional in nature, accommodating both high volumes and high turnover of people. Additionally, depending on station type, the station's building envelope may not be fully enclosed and in general may be directly bisected by the train itself, challenging conventional applications of code, including but not limited to fire/life/safety, heating & cooling, ventilation, and structural.

Locally, code officials struggle with how to apply the building code to a light rail station and are less likely to be as familiar with other industry specific standards or specialty governing codes that impact station design. When multiplied by numerous jurisdictions simultaneously it creates an extraordinarily challenging regulatory scenario for both agency and regulatory partner. To date, projects have managed these unique challenges jurisdiction by jurisdiction. The outcome is a patch of "one-off" solutions that in the past have been resolved by agreement but not necessarily bound by code, saddling the agency with uncertain asset management and O&M risks and possibility of substantial upgrade to future code standards by regulatory agencies and outcomes that are asynchronous to long-term asset management.

As of this writing, ST has begun a station standardization design effort to deliver its remaining ST3 capital program. This will affect up to 30 future stations of various station types throughout the Puget Sound region. The goal of this effort is to create design consistency, stability and application of required codes, while also helping to establish a more uniform asset management and O & M process. Parallel to this effort should be a pre-examined station design effort with local regulatory agencies to help fast-track approval of building permits. Specifically, this memo proposes a partnering with the Washington

Association of Building Officials (WABO) and either the Washington Fire Chief Association or the Washington State Association of Fire Marshals (referenced in this memo as “Partnership”) to vet, endorse and utilize this solution for use with local AHJ’s. This memo will attempt to explain at a high level this approach, its benefits, challenges, timing, and interim next steps.

Solution:

This memo advocates a two-step solution. One is an independent plans examination consultant selected by the Partnership for plans examination services to review the proposed standardized stations for code compliance. This firm would collaborate with the station design firm to validate the designs and identify discipline areas where the code is either insufficient, silent, or does not contemplate. New code language or recommendations to reference industry specific codes/standards can be recommended to the Washington State Building Code Council for adoption into the State Building Code. The Partnership will establish criteria, goals, and outcomes it wishes to achieve via this effort and weigh in on the process at key points.

Building on the first step, the next would be to use the selected plans examination consultant to “pre-approve” station permit applications (i.e., station designs as integrated into proposed station environments) before submittal to AHJ’s. The plans examination consultant would review the station submittal for compliance with local AHJ’s code requirements across all technical disciplines and issue initial corrections notices. Once corrections are reconciled between project and consultant the pre-examined station submittal would be submitted to the AHJ for potential fast-tracking, or in the case of smaller jurisdictions continue review until the plan is ready to issue, subject to a final plan check and verification with the local jurisdiction. This would require consent from affected AHJ’s participating in the Partnership but could offer significant benefits to capital project teams, including time and cost, by making the plans examination consultant the clearinghouse for initial plans examination at minimum. This would reduce most of the heavy lift the AHJ is ordinarily expected to perform while relieving pressure on the AHJ to process and turn over permits as they face potentially multiple light rail submittals simultaneously under difficult to improbable time limits.

When completed there are a few pathways the Partnership could pursue to mainstream this product. AHJ’s could include this within their local standard plan program though this may be a challenge with smaller jurisdictions as to whether they have one. Work with Washington State L&I to add the station standard plan designs as a gold sealed document or equivalent, though as station designs are not factory assembled structures this path may not be viable. The most viable plan so far appears to be to keep the pre-examined standard design with WABO, though it is unclear if they have the required authority to do so. The plans examination consultant would remain on-call to review station building permit applications headed for AHJ approval for permit pre-approval.

Benefits:

There are two goals this solution potentially achieves. One is a minimum baseline 80% pre-examined design that can be globally utilized throughout the agency’s capital program regardless of city. Second is a fast-track proposal that if successful will include pre-approval of technical code requirements related to the station building and environment to be performed by the plans examination consultant on behalf of the local AHJ. This would also extend to reviewing station ancillary structures, such as garages, etc., and/or potentially specialty structures like TPSS’s, where local AHJ’s may lack the code knowledge or expertise to review and approve. Authority to approve the project for permit would remain with the local jurisdiction.

There are many potential benefits to this approach. There will be distinctions between station types when considering the future stations being delivered under the capital program. This includes elevated, at-grade, retained cut and underground stations. Chief amongst these benefits for the agency are consistent code interpretation, potential cost savings, and improved schedule certainty. For our partners it would mean a better informed local regulatory environment with code officials having shared specialty knowledge of a light rail station design and a trusted, independent plans examination consultant endorsed by the agency and the regulatory community.

Application of these benefits at the local level may help the agency increase certainty in delivering its capital program by increasing knowledge and application of code by AHJ's, reducing frustration from lack of understanding while helping the agency avoid significant delays in schedule and substantial project costs via the permitting process. Code solutions produced through this design review can be elevated to new code language to be enacted at the state level. This provides station designs a pathway to review and approval outright, mitigating, if not eliminating the need for project letters of concurrence or other project specific agreements to reach compliance. These code solutions may also extend retroactively to the existing system in operation, leaving the overall system better capable of maintaining code compliance through future improvements or modernization over the asset lifecycle.

Challenges:

This solution would only directly apply to building and technical code reviews of the station and station environment. Challenges to implementing this proposal may include:

- Possible legal or procedural hurdles in creating a fast-track process with local AHJ's. This may require local councilmanic action resulting in possible changes to entitlements, modification of transit way agreements, or both.
- Integrating local land use/zoning requirements, environmental requirements, and ROW/Public Works standards that would remain the responsibility of the local AHJ.
- Cases where modification or deviation from the standard plan is necessary for integration into the built environment at the local level, based on site conditions, constraints, etc., that make the standard design difficult to fully implement without compromising building or public safety.
- As non-profit organizations, WABO and Fire Associations are unlikely to have the means to directly fund this proposal.
- Can WABO enter into an agreement on behalf of the affected jurisdictions? Is a governing authority required to certify these pre-examined designs, would the partnering jurisdictions agree to consent to such an authority, and if so which authority.
- Lastly, long-term this proposal would require periodic monitoring of changes to state and local codes as well as periodic review of ST design criteria to ensure long-term stability to deliver the remaining capital program and maintain stable asset management.

Timing:

This proposal, if authorized to proceed is projected to take up to two years to organize, including but not limited to partnering agreements, scope development, consultant selection, design review, comment resolution and final deliverables.

Options:

ST would need to assess the relative cost and benefit of entering into this partnership as both a financial impact to its capital program in the short term and opportunities to create consistencies as these future assets transition from design and construction to asset lifecycle and O&M needs over the long term. A reasonable solution may be that projects within the capital program can proportionately fund this effort with the added benefit that each project stands to benefit from the Partnership in its respective represented cities.

Next Steps:

Outreach to the partner groups 1st Quarter 2024 to gauge level of interest. If the partner groups demonstrate interest, follow up in 2nd Quarter with a high-level proposal highlighting a preliminary strategy, partnering and agency goals for consideration. Engage agency internal stakeholders and executive's 1st Quarter 2024 to gauge level of interest. If agency demonstrates interest, follow up in 2nd Quarter with agency internal strategy, agency goals and preliminary scope development.