

Exhibit A
City of Portland Comments
I-5 Rose Quarter Improvement Project, Environmental Assessment

Comment #	Report Title	Page, Line / Table #	Commenter	Comment
1.	Global	Global	Caitlin Reff, PBOT	Multiuse path from Flint to Vancouver that is part of the adopted Plan needs to be included in the project and impact and benefit evaluation.
2.	EA Main Report	p. 72	Caitlin Reff, PBOT	N Flint is not an appropriate street for detour routes or increased temporary use during construction. As stated in multiple locations throughout the EA, a benefit of the Build scenario is reduced use of N Flint in front of Harriet Tubman Middle School. Using this street as a detour route while N Vancouver is closed is not appropriate. The City has not reviewed or approved any temporary traffic control plans or construction sequencing approaches.
3.	Global	Global	Jennie Tower, PBOT	Also include description and impact assessment of new/improved bike and ped facilities on Wheeler between Multnomah and Ramsay
4.	Global	Global	Jennie Tower, PBOT	How do we secure adequate funding for temp traffic control? I understand specific elements need to be included in the EA in order to be funded. There should be funding for advertising high impact closures and a "Get Portland Moving" program, etc.
5.	Global	Global	Jennie Tower, PBOT	I thought there was also a multi-use path proposed along the east side of I-5 between the Vancouver/Hancock lid and the intersection of Tillamook and Flint. Doesn't this need to be described with impact addressed?
6.	Global	Global	Jennie Tower, PBOT	The Broadway Weidler project does not include ADA ramp upgrades or transit islands. This was fixed in a couple of locations but is stated incorrectly in many locations still.
7.	Main Report, p.7	Fig. 2-1	Jamie Jeffrey, PBOT	Bottom right No Build should be West of Benton, not East of 2nd Ave.
8.	Main Report, p.7	Para 2	Jamie Jeffrey, PBOT	Incorrect statement "...but could introduce increased potential of right-hook collision potential for bicycles where the protected bike lane would be added." There are existing standard/buffered bike lanes along Broadway and Weidler. Replacing standard bike lanes with protected bike lanes will not increase the potential of right-hook collisions. This part of the sentence should be removed in the main report as well as all other sections that state the same thing.
9.	Main Report, p.14	Para 2, Sentence 3-4	Jamie Jeffrey, PBOT	Add the bolded language "Bicycles WB...would have their own protected signal phase, as currently exists." In sentence 4 at Weidler/Williams, EB Weidler movements cannot move concurrently with SB reversed flow movements anyway. The signal controller will not allow conflicting movements to happen concurrently. Is this sentence supposed to refer to some other movements that could move concurrently but will be intentionally separated? If it refers to the vehicle movements, then it should be removed since it could be misleading.
10.	Main Report, p.18	Para 4	Jamie Jeffrey, PBOT	The new ped/bike connection between Flint/Tillamook and the new Hancock-Dixon connection (the diagonal pathway that parallels the freeway) is not shown on Fig. 2-6 and should be.
11.	Main Report, p.69	Para 1	Jamie Jeffrey, PBOT	"The addition of transit boarding islands on Broadway/Weidler..." Have these been shown anywhere in the project concepts? There would not appear to be space for any within the API based on the number of travel lanes (as well as protected bike lanes) in the traffic modeling. There would not appear to be enough space within the existing right-of-way to provide these within the API. This should either be deleted from any tech reports, or there should be some acknowledgement that additional right-of-way might be necessary in order to provide these.
12.	Main Report, p.69	3.14.2.2 No Build Para 1	Jamie Jeffrey, PBOT	The Broadway Multimodal Project will not be upgrading sidewalks and ramps (applies to all references to the Broadway Multimodal Project). None of the projects listed in 2nd sentence "Additional north-south..." are in the API. This sentence should indicate that they are outside/adjacent to the API so it is not confused with the 1st sentence in paragraph 2 "Despite these improvements, over half the intersections in the API...". This implies that those projects would somehow affect ped LTS within the API.
13.	Main Report, p.70	3rd and 4th bullet	Jamie Jeffrey, PBOT	Under Long Term Operational Impacts. The 3rd and 4th bullets state the same thing. Delete bullet 4.
14.	Main Report, p.73-74	3.14.2.3 Mitigation	Jamie Jeffrey, PBOT	The list should be expanded. If some are included, then it seems all should be included. For bikes, the AASHTO and NACTO Bikeway Design Guides should be included (NACTO is adopted by the City of Portland). For pedestrians, the Portland Pedestrian Design Guide (adopted by the City) should be added. For Work Zones, the Portland Traffic Design Manual, Vol 2: Temporary Traffic Control should be added. Why are these specific to ped/bike and work zone, but not for other transportation mode designs (i.e. transit, motor vehicles, freight)?
15.	Main Report, p.74	Build Alternative Para 5	Jamie Jeffrey, PBOT	The Synchro analysis and corresponding VISSIM analysis of the Broadway-Weidler corridor shows a delay scenario that appears to operate much better than observed conditions in the field for most intersections. The report does acknowledge limitations of Synchro when modelling congested conditions. In addition, VISSIM outputs for queuing are included in the report. PBOT continues to be concerned about accurately representing traffic conditions in the model. Some analysis conditions that are not discussed are the following: <ul style="list-style-type: none"> Field observations of queues to confirm if the model is representative of the actual conditions. If not representative, then the model should normally be calibrated to reasonably represent the conditions. Travel time along the corridor does not appear to have been measured or modelled, as there was no discussion. This is another evaluation that should have been completed to confirm if the model reasonably represents traffic conditions. This analysis should be completed with design to confirm that the lanes on the Broadway-Weidler corridor approaching the interchange will be adequately long to serve the demand and provide reasonable v/c and/or LOS. No-Build and Build analyses may need to be adjusted accordingly.
16.	Main Report, p.74	Build Alternative Para 6	Jamie Jeffrey, PBOT	3rd sentence – "Vehicles would be directed north on N Wheeler to N Weidler..." This has not been fully vetted or agreed upon. Analysis of signal timing/operations within the nearby network would need to be evaluated to confirm feasibility. Signal equipment changes might also be required. Recommend changing sentence to "Vehicles could be directed north..." and add statement that it would be more fully evaluated during design.
17.	Access Technical Report	Pg. 30	Jennie Tower, PBOT	Modified intersections: Multnomah/Wheeler will need to be modified with the extension of bike/ped facilities on the east side of Wheeler down to Multnomah. There is no Center Court/Broadway, it should be Center Court/Wheeler. Also modifying Weidler/Wheeler, Weidler/1st, Broadway/Vancouver, Dixon/Wheeler, Hancock/Williams,
18.	Access Technical Report	Pg. 30	Jennie Tower, PBOT	Closed intersections: Broadway/Flint will be closed, not replaced. Hancock/Flint will be closed and replaced with an intersection at Hancock/Dixon.
19.	Access Technical Report	Pg. 30	Jennie Tower, PBOT	New intersection: Should note that there will be a new intersection created at Hancock/Vancouver.

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20.	Access Technical Report	Pg. 34	Jennie Tower, PBOT	Section 6.3.3 does not address access impacts
21.	Access Technical Report	Pg. 35	Jennie Tower, PBOT	Section 7 does not identify any measures to address temp impacts to residential access. It also does not identify measures to address permanent impacts (relocated driveways, properties rendered undevelopable by removal of all access points, etc.)
22.	Access Technical Report	App. A	Jennie Tower, PBOT	Many of the intersections are listed incorrectly as “No” for “Affect of Proposed Concept” when they will actually be modified/reconstructed.
23.	Access Technical Report	App. A	Jennie Tower, PBOT	Winning Way is now Ramsay Way
24.	Access Technical Report	App. A, Pg. 5	Jennie Tower, PBOT	Missing driveways 12, 13, 20, and 21 and intersections 509.
25.	Access Technical Report	App. A	Jennie Tower, PBOT	There are a few properties where it appears the project is planning to close all accesses “proposed closure with redevelopment or with project implementation”. This means the project must plan to purchase the property or compensate the owner for the reduction in property value.
26.	Access Technical Report	App. A, Pg. 5	Jennie Tower, PBOT	Intersection 515 to be closed and become driveway
27.	Access Technical Report	App. A	Jennie Tower, PBOT	Missing some segments with driveways and intersections in the API. Wheeler north of Broadway, Dixon, Hancock west of Flint, Flint from Weidler to Tillamook. Some of these driveways and intersections will be impacted.
28.	Access Technical Report	App. A, Pg. 17-18	Jennie Tower, PBOT	Intersection 527 will be modified. Driveway 91 will be closed with the introduction of the 2-way bike facility. Driveway 53 will be modified.
29.	Access Technical Report	App. A, Pg. 19	Jennie Tower, PBOT	Intersection 537 to be closed and become driveway
30.	Active Tech Report	p 49-50, Tables 15-16	Jamie Jeffrey, PBOT	Change legends to say “Meets City’s Crossing Guidelines” and “Does Not Meet City’s Crossing Guidelines”. These are not standards, they are guidelines and the difference is very important.
31.	Active Tech Report	P 88, Short Term Impacts, 1st bullet	Jamie Jeffrey, PBOT	3rd sentence “Because several of these alternative routes, such as Tillamook, could potentially serve as motor vehicle detour routes, the potential for...” Change the beginning to “Because some of these alternative routes could potentially serve as motor vehicle detour routes...” (remove the “such as Tillamook”). Tillamook is classified as a City Bikeway and a Local Service Traffic Street. Establishing Tillamook as a motor vehicle detour route (for non-local circulation) would not be supported by City policy. Streets with these classifications should be protected to the maximum extent possible.
32.	Active Tech Report	p 88, 2nd bullet	Jamie Jeffrey, PBOT	“Removal of the Flint overcrossing structure would sever a major north-south bicycle connection. However, the Hancock/Dixon connector would generally replace this link. This new connection would follow substantially steeper grades compared with the existing Flint structure.” The second sentence is incorrect. <ul style="list-style-type: none"> Recommend replacing “However, the Hancock/Dixon connector would generally replace this link.” with “However the new pedestrian/bicycle pathway connection from the Hancock/Dixon connector to Broadway, as well as the left-side bike lane and jug-handle on Vancouver from Hancock to Broadway would generally replace this link.” Replace the last sentence with “The new ped/bicycle connection would follow steeper grades than the existing Flint structure but would be within ADA maximum grades.”
33.	Active Transportation TR	Figure 13 and Table 3	Jennie Tower, PBOT	Missing identification of critical gap in ped facilities. There currently is no connection between the west side sidewalk on Vancouver and the north leg crosswalk at Vancouver/Broadway. The west side sidewalk is currently signed as closed between Broadway and north of the I-5 overpass.
34.	Active Transportation TR	Table 6	Jennie Tower, PBOT	There are deficiencies: 1) Diagonal ramp on SE corner (dual preferred). 2) North leg crosswalk does not have ADA connection to west side sidewalk on Vancouver due to lack of width available for refuge. This project should correct that deficiency.
35.	Active Transportation TR	Table 10	Jennie Tower, PBOT	Deficiencies not listed correctly: 1) Diagonal curb ramp exists on NW corner only 2) There are no ramps at all on the SE corner
36.	Active Transportation TR	Table 11	Jennie Tower, PBOT	Deficiencies list is incomplete: There are no curb ramps at all on the east side
37.	Active Transportation TR	Table 16	Jennie Tower, PBOT	Dual curb ramps do not exist on the SW corner, only a single ramp to serve the west leg crosswalk (south leg crosswalk is closed)
38.	Active Transportation TR, Pg. 68	Paragraph before 6.2.1.1	Jennie Tower, PBOT	This paragraph mentions a CPC plan and assumes construction phasing will follow “Scenario C”. Is this a safe assumption to make? Where is this plan? What is “Scenario C”?
39.	Active Transportation TR, Pg. 68	6.2.1.1 second bullet	Jennie Tower, PBOT	This bullet talks about a temporary detour bridge that will be built adjacent to the existing Weidler structure before it gets demolished. Where? I don’t see how a temp structure can be built that does not conflict with construction of the lid.
40.	Active Transportation TR, Pg., 69	6.2.1.1 third bullet	Jennie Tower, PBOT	This bullet talks about demolition of the Broadway structure after the Williams structure and Weidler structure. Wont the Broadway structure have to be demolished with the Williams structure since they span I-5 together?
41.	Active Transportation TR, Pg. 70	6.2.1.4	Jennie Tower, PBOT	There will likely be a temp detour path for the esplanade built on the east side adjacent to the existing route, but outside of the work zone.
42.	Active Transportation TR, Pg. 71	last bullet	Jennie Tower, PBOT	The gap between west side sidewalk on Vancouver and the north leg crosswalk at Vancouver/Broadway should be connected.
43.	Active Transportation TR	Table 21	Jennie Tower, PBOT	How is the LTS score improving under the build condition for Weidler/Victoria? If anything, this should get worse with the widened intersections and dual right turn slip lane.
44.	Safety Technical Report, ES-2	Middle paragraph	Jamie Jeffrey, PBOT	Line starting “The other three serious injury collisions occurred...N Larrabee Avenue/N Hancock...” Should this be Larrabee/Broadway? Larrabee/Hancock is outside the study area?

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45.	Safety Technical Report, ES-2	4th bullet at bottom	Jamie Jeffrey, PBOT	"...including a multi-use path to connect N/NE Hancock to N Dixon." Is there an MUP on the Hancock-Dixon overcrossing/connection or just sidewalks/bike lanes? Isn't there a MUP shown from the overcrossing to Broadway? Should this say "as well as a MUP from Hancock to N Broadway"?
46.	Safety Technical Report, p.23	3.3 (applies to all tech reports)	Jamie Jeffrey, PBOT	City of Portland has the N/NE Quadrant Plan, Lloyd District Plan, Broadway-Weidler Corridor Plan which are sometimes prescriptive about what the sidewalk corridors, etc are designed like. For traffic and bikeway designs, COP has adopted MUTCD and NACTO Bike Design Guide. These should be included for local street design framework.
47.	Safety Technical Report, p.28	4.3.4	Jamie Jeffrey, PBOT	As stated in prior comments October 2018, Broadway/Flint has a known crash problem. Although it was not included in the original scope, this project will change the environment in that location, due to the removal of the Flint overcrossing. By the same token, some SB vehicles would be expected to reroute to the Broadway/Wheeler intersection with the new Hancock-Dixon overcrossing, resulting in a higher exposure. Seems appropriate that it should have been included in the Safety analysis.
48.	Safety Technical Report, p.30-31	Exposure section	Jamie Jeffrey, PBOT	Methodology is confusing. For example, Pedestrians: Existing ped volumes: 248-330 is considered High, but in No Build the same range is considered Moderate, and in Build 301-330 is High again. Why would the threshold values change? This methodology seems to compare apples and oranges. There's no explanation or reasons why changing the threshold definition is being done, and how it relates to defining the risk. For peds, this makes it look like the risk gets better, even though the ped volumes could be exactly the same. This should be explained better, or the volume ranges should stay the same (expect on the upper end).
49.	Safety Technical Report, p.49	4th bullet	Jamie Jeffrey, PBOT	Middle of paragraph: "This could result in risky behavior. (e.g., non-compliance with prohibited crossings)...". There are reasons why these crossings are prohibited (i.e. dual right turns). If the crossings were allowed, there could be a higher risk to pedestrians. This context should be included in the paragraph so there is full risk assessment.
50.	Safety Technical Report, p.53	6.2.2.3 1st bullet	Jamie Jeffrey, PBOT	RE: "...addition of protected bike lanes could introduce right-hook collision potential..." Bike lanes already exist on Broadway and Weidler. Adding protected lanes won't increase the right-hook potential because it already exists with the bike lanes today.
51.	Safety Technical Report, p.59	Last sentence	Jamie Jeffrey, PBOT	Redundant – already stated in the 3rd bullet at bottom of pg 58.
52.	Safety Technical Report, p.60	1st bullet	Jamie Jeffrey, PBOT	Recommending adding freight to the list for best practice design treatments.
53.	Safety Technical Report, p.60	Section 7	Jamie Jeffrey, PBOT	Consider adding to the bullets: PBOT provides the City of Portland Temporary Traffic Control Manual (which includes examples of pedestrian and bicycle accommodation through work zones).
54.	Safety Tech Report, p.53	6.2.2.3 2nd bullet	Jamie Jeffrey, PBOT	"Additional intersection complexities unique to the Build Alternative would include the following: o Left-side bike lanes transitioning to right-side bike lanes (e.g., N Vancouver at N Broadway)" This is confusing. The right side bike lane on Vancouver will move to the left side at Hancock (as stated in report) to get to the jug handle at Broadway. The project assumes all SB bikes will go to Williams and not continue on Vancouver. Is a different alternative identified in the project scope? Did not see any reference to a different alternative.
55.	Safety Tech Report, p.54-55	Table 7 (54), and In summary 2nd bullet (55)	Jamie Jeffrey, PBOT	"The N Vancouver/N/NE Hancock intersection would be a new intersection in the Build Alternative and is expected to have moderate motorist and pedestrian exposure and low bicycle exposure based on volumes. The intersection is anticipated to have moderate complexity based on the proposed intersection geometry and moderate risk based on speed limit." This statement should indicate a higher bicycle exposure - Probably moderate if not all of Flint bicycles go to Vancouver (some may go to new ped/bike connection to Broadway/Flint). Bikes going to Rose Quarter today will still need to go through the Hancock intersection, but it will be more complex (as stated in the complexity sentence).
56.	Safety Tech Report, p.54-55	Table 7 (54), and In summary (55)	Jamie Jeffrey, PBOT	The potential for an east side MUP along N Williams (formerly Wheeler) from Ramsay to Multnomah is not included in this EA. There is a safety assessment that should be included for the option of an east side MUP. <ul style="list-style-type: none"> - Exposure for bikes/peds is increased with Build over No Build due to Clackamas crossing. - Complexity increases due to having to set up signal timing to provide separation for SB bikes and NB buses. Risk would likely be the same.
57.	Safety TR	General	Jennie Tower, PBOT	Local street study intersections should include each new and modified intersection. Address what impacts changes are expected to have. It is not acceptable to reject this comment. The first time the study intersections were submitted for review by PBOT Traffic was with the draft technical memo. This comment was made then and rejected without adequate justification.
58.	Safety TR, Pg. 53	6.2.2.3, 2nd open bullet under 2nd bullet	Jennie Tower, PBOT	Change wording. We cannot transition from left side to right side bike lane at Broadway. Will likely end bike lane in jug handle.
59.	Traffic Technical Report, Exec Summ	Existing Conditions	Jamie Jeffrey, PBOT	The Synchro analysis and corresponding VISSIM analysis of the Broadway-Weidler corridor shows a delay scenario that appears to operate much better than observed conditions in the field for most intersections. The report does acknowledge limitations of Synchro when modelling congested conditions. In addition, VISSIM outputs for queuing are included in the report. PBOT continues to be concerned about accurately representing traffic conditions in the model. Some analysis conditions that are not discussed are the following: <ul style="list-style-type: none"> • Field observations of queues to confirm if the model is representative of the actual conditions. If not representative, then the model should normally be calibrated to reasonably represent the conditions. • Travel time along the corridor does not appear to have been measured or modelled, as there was no discussion. This is another evaluation that should have been completed to confirm if the model reasonably represents traffic conditions. This analysis should be completed with design to confirm that the lanes on the Broadway-Weidler corridor approaching the interchange will be adequately long to serve the demand and provide reasonable v/c and/or LOS. No-Build and Build analyses may need to be adjusted accordingly.

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60.	Traffic Technical Report, p.36-37	Tables 3 & 4	Jamie Jeffrey, PBOT	The GEH Statistic value methodology for calibration yields simulated volumes that are all lower than measured volumes. Although these are all within the 5.0 GEH threshold, a number of volume differences are greater than 100 vehicles per hour, with one location as high as 240 vehicles/hour. In congested conditions, the lower simulated volumes would yield better LOS results than the measured volumes. This is likely contributing to the “better than reality” Synchro results (LOS A’s and B’s). Measured volumes should be run in Synchro to see the difference in delay. This analysis could be done during design.
61.	Traffic Technical Report, p.47	5.2.2 general	Jamie Jeffrey, PBOT	The report says that VISSIM delays for vehicles are greater than the delays in Synchro. However, in the VISSIM results tables, more than half of the intersections show less delay (operating even better) than Synchro. Another example that demonstrates that basic delay results aren’t representative of actual conditions.
62.	Traffic Technical Report, p.51	5.2.3; 6.4 3rd paragraph	Jamie Jeffrey, PBOT	There is no indication whether the Streetcar travel times match actual travel times for Streetcar through the corridor. These times seem faster than actual. This should be confirmed and included in the report.
63.	Traffic Technical Report, p.71	2nd paragraph	Jamie Jeffrey, PBOT	RE: “For example, at the I-5 SB off-ramp at N Broadway and N Vancouver, Synchro delays are consistently less than VISSIM delays across the analysis periods.” This is incorrect based on the info in the tables - VISSIM delays are less than Synchro delays in 3 of the 4 hours. Does this affect the conclusion about Synchro not considering surrounding congestion or queueing impacts?
64.	Traffic Technical Report, p.77	Table 28	Jamie Jeffrey, PBOT	Build condition: Location 2 (Broadway/Williams) shows 553 SB bikes; Location 7 (Weidler/Williams) shows only 174 SB bikes. Where did the other 379 SB bikes go? There don’t appear to be any destinations between Broadway and Weidler that would pull that many bikes away from continuing SB.
65.	Traffic Technical Report, p.84	3rd paragraph last sentence	Jamie Jeffrey, PBOT	“During the PM analysis period, local intersections in the Build Alternative are generally operating better compared to the No-Build Alternative...” This is incorrect based on Tables 20 and 21. Slightly more than half of the intersections are operating worse in the Build Alternative.
66.	EA	39, 3.6.2.3 bullets 2,3,4	Jana LaFrenier, PBOT	Funds should be set aside to uphold these mitigation statements. It would be nice to see an action plan on data collection, measurement strategies and timelines.
67.	EA	61, 62, 3.12.2.2 ¶ # 9	Jana LaFrenier, PBOT	The Vera Katz Esplanade is a major pedestrian and bike route for the Central City district as such the Bureau of Transportation would recommend a City of Portland traffic engineer assist in the development or review of any temporary detour routes created for use during construction.
68.	EA	63, 3.12.2.3 bullet # 3	Jana LaFrenier, PBOT	Spelling error – “Eastlake” needs to be changed to “Eastbank”
69.	EA	66, 3.13.2.3	Jana LaFrenier, PBOT	The Bureau of Transportation would like to emphasize the need to allocate and secure funds toward the implementation of the temporary traffic management plan. We would also like to extend an invitation to ODOT to acknowledge each agencies priorities and policies toward the movement of people during construction and rights-of-way closures. This will hopefully result in an agreement on the prioritization of funds toward traffic demand mitigation strategies during construction.
70.	EA	66, 3.14.1.1	Jana LaFrenier, PBOT	On page 64 the EA mentions that the Legacy Emanuel Medical Center is located in the API. On page 66 under 3.14.1.1 the medical center is not listed as a major transit trip generator; is this an oversight? Although it is located on the edge of the API this is a major medical facility and its access during construction should be secured.
71.	EA	72, Line # 2	Jana LaFrenier, PBOT	“Access would be maintained through temporary structures that would accommodate all modes of travel” Streetcar needs to be included on this temporary structure to accommodate existing riders from stop and go service and to use as an attractive resource for alternative travel during construction related disruptions to the rights-of-way.
72.	EA	72, Mitigation	Jana LaFrenier, PBOT	Funds should be secured to implement traffic calming measures such as temporary speed bumps, striping, signal timing adjustments or other temporary apparatuses needed to accommodate these mitigations.
73.	EA	74, 3.14.2.4 Build Alternative	Jana LaFrenier, PBOT	Acknowledgement that one of the busiest sections of the ODOT Highway system may be closed or capacity reduced during peak travel times should be mentioned in this document. In addition to acknowledging long duration closures causing travel disruptions during peak travel times traffic mitigation measures should be mentioned and funds should be set aside to assist with shifting driver behavior from single occupancy vehicle mode to multimodal. This may involve incentivizing the use of transit and would involve coordination and collaboration with TriMet/CTran/Streetcar, Multnomah County and the City of Portland. Long duration closures may allow ODOT to create a safer work zone, save on construction costs, reduce schedule times and provide better quality assets. To keep Portlanders moving and economic activities stable during construction related impacts alternative modes of transportation need to be accessible and incentivized including transit and active transportation. Given the economic vitality of the API PBOT would like to emphasize that traditional outreach methods of asking drivers to avoid the area should not be used, but instead a safe construction site maintained, and alternative modes of transportation offered to keep activity and people moving throughout the area. This may involve detailed analysis of closure impacts on the local region, signal timing modifications and plans, business access and transit only lanes, among others.
74.	EA	75, Mitigation bullet # 1	Jana LaFrenier, PBOT	Language incentivizing changes to travel behavior should not include avoiding the area, but instead showcase the coordination and collaboration between agencies to offer enhanced multimodal solutions including the use of transportation demand strategies on a short-term basis to get through and around the impacted area during construction.
75.	EA	88, 3.17.2.13 Transit	Jana LaFrenier, PBOT	Transit conditions should be enhanced during construction periods and incentivized as a mitigation strategy for congested related ROW disruptions due to construction. Establishing and securing bus routes and stops for the duration of construction would provide consistency and reliability for riders. Establishing business access and transit only lanes along those routes may increase ridership and shift travel behavior during construction.

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76.	EA	89, Active Transportation	Jana LaFrenier, PBOT	Active transportation corridors should be maintained or enhanced during long construction periods. Active transportation enhancement should be considered as a traffic mitigation strategy to shift travel behavior during construction. Any closures along active transportation corridors including the Eastbank Esplanade should be coordinated as to not impede the use of this travel mode throughout construction.
77.	Active Transportation Tech Report ES-1	Para 5	Michelle Marx, PBOT	<p>The text notes that the vast majority of the API is designated as a City of Portland Pedestrian District, but does not provide the policy explanation of what that means and what the implication of that designation is for the project. Policy 9.6 of Portland's 2035 Comprehensive Plan articulates the City's Strategy for People Movement. The City policy stipulates that walking facilities will be prioritized above all other potentially competing transportation facilities. This means that in instances where tradeoffs in investment, right-of-way allocation, and operational needs are in conflict City Policy is to prioritize the needs of people walking.</p> <p>Within a designated Pedestrian District, the locations within the city with the highest concentrations of pedestrian activity and pedestrian generators, prioritizing the needs of people walking is particularly paramount. As such, intersection design and operations must consider the safety and comfort of people walking above vehicular operational considerations.</p> <p>This policy foundation must be acknowledged by the project in advance of the design process.</p>
78.	ES-3	Bullet 2	Michelle Marx, PBOT	<p>The bullet notes that "Separation between pedestrians and motor vehicle traffic would continue in the form of sidewalks and shared use paths, depending on location." While this statement accurately reflects the physical separation between motor vehicles and people walking along the sidewalk corridor, the report does not address the temporal separation between these two user groups at intersections at signalized crossings.</p> <p>The report fails to address operational impacts for pedestrians at signalized crossings under the Build Alternative (e.g., where people walking will be required to share phases with turning vehicles, and therefore not be fully separated from motor vehicle traffic). Shared WALK phases concurrent with permissive vehicle phases (both left and right) is a major impact to pedestrian safety in Portland. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). The vast majority of those crashes occur when the pedestrian has the WALK indication. This data is presented in the City's draft Pedestrian Master Plan (PedPDX).</p> <p>The existence of the traffic signal alone is not a sufficient pedestrian crossing. As such, an analysis of pedestrian infrastructure within the study area must indicate in both the Build and No Build scenarios where separated pedestrian phases are/will be provided.</p>
79.	Active Transportation Technical Report	Section 2.2.2 (entire section)	Michelle Marx, PBOT	The Active Transportation Technical Report describes in text the lane configuration and traffic circulation that the Build scenario will provide, but does not provide a detailed plan illustrating these project design proposals (the report only includes a conceptual diagram). It is difficult for the reader (be they agency partners or members of the public) to fully understand the proposed changes to lane configurations and traffic circulation that the Build Scenario proposes as described in text format. The EA needs to provide a line drawing illustrating the proposed changes and not just a conceptual diagram. This is critical as lane configuration is a critical element to the qualitative pedestrian experience. Please add an additional figure to the EA documents to visually convey this information and not just describe in text so members of the public and agency partners have sufficient information to knowledgably comment on the EA.
80.	Active Transportation Technical Report	Section 3.3.2.1 , Top of page 23	Michelle Marx, PBOT	<p>The document cites City of Portland TSP Policy 9.6, which prioritizes the needs of people walking over the operational and design needs of other modes.</p> <p>Please acknowledge the implications of this policy on future project design stages....namely that the operational and right-of-way needs of people walking will take precedence over the operational and mobility needs of vehicles, including at intersections. This guidance must be included in the project scope.</p>
81.	Active Transportation Technical Report	4.3.1.2	Michelle Marx, PBOT	The text notes "factors that influence an intersection's pedestrian LTS score typically include..." but it is not clear from the report which of these elements are actually included in the LTS analysis nor how these element are quantitatively scored. No technical description of the LTS methodology is provided in the report. As such reviewers cannot knowledgably comment on whether the potential impacts of the Build scenario are being accurately evaluated by the EA.
82.	Active Transportation Technical Report	4.3.2, First bullet on page 32	Michelle Marx, PBOT	"Degree of separation from motor vehicle traffic" must also include shared pedestrian crossing/vehicle turning phases at signalized intersection crossings (since no methodology is provided it is not clear from the document whether and to what degree this might be included in the LTS factors).
83.	Active Transportation Technical Report	Section 5, Intro (top of page 33)	Michelle Marx, PBOT	The text notes that the vast majority of the API is designated as a City of Portland Pedestrian District, but does not explain what the implications of this designation will mean to project design. In short, as a designated Pedestrian District, pedestrian comfort and mobility will take precedence over competing needs (including operational/mobility needs of vehicles). This is also in compliance with Policy 9.6 in the City's 2035 Comprehensive Plan. The implications of this policy on future project design stages needs to be acknowledged
84.	Active Transportation Technical Report	Page 37, Figures 13 and 14.	Michelle Marx, PBOT	The figure does not identify the missing sidewalk on the west side of N Vancouver at the intersection with Broadway. This sidewalk segment is an important missing connection at the intersection of two Major City Walkways within the project area.
85.	Active Transportation Technical Report	Page 39, Table 3	Michelle Marx, PBOT	Table does not include the missing sidewalk segment on the west side of N Vancouver at the intersection with Broadway. This is an important missing sidewalk connection along at the intersection of two Major City Walkways within the project area.

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86.	Active Transportation Technical Report	5.1.3	Michelle Marx, PBOT	<p>Critical to pedestrian safety is the separation between pedestrian WALK and vehicular turning phases (both left and right turning vehicles). The document needs to identify any changes between the Build and No Build scenario to shared pedestrian crossing/vehicle turning phasing at signalized crossings.</p> <p>Shared WALK phases concurrent with permissive vehicle phases (both left and right) is a major impact to pedestrian safety in Portland. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). The vast majority of those crashes occur when the pedestrian has the WALK indication. The existence of the traffic signal alone is therefore not a sufficient pedestrian crossing. As such, an analysis of pedestrian infrastructure within the study area must indicate in both the Build and No Build scenarios where separated pedestrian phases are/will be provided.</p>
87.	Active Transportation Technical Report	5.1.3, Tables 4 through 16	Michelle Marx, PBOT	<p>An analysis of pedestrian conditions at intersections must include signal operations (identifying where pedestrian crossing phases are/are not shared with vehicle turning phases). Please identify where permissive left/right vehicle turns are permitted concurrent with pedestrian WALKS.</p> <p>Shared WALK phases concurrent with permissive vehicle phases (both left and right) is a major impact to pedestrian safety in Portland. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). The vast majority of those crashes occur when the pedestrian has the WALK indication. The existence of the traffic signal alone is therefore not a sufficient pedestrian crossing. As such, an analysis of pedestrian infrastructure within the study area must indicate in both the Build and No Build scenarios where separated pedestrian phases are/will be provided.</p>
88.	Active Transportation Technical Report	5.1.3, Page 47	Michelle Marx, PBOT	<p>Include signal operations (shared phasing between permissive vehicle turning movements and pedestrian WALK phases) in list of gaps/deficiencies.</p>
89.	Active Transportation Technical Report	5.5	Michelle Marx, PBOT	<p>As a reviewer I do not know how to comment on the LTS findings in the absence of an explanation of the technical methodology of that analysis in the report.</p>
90.	Active Transportation Technical Report	Section 5.5, Page 56, last para	Michelle Marx, PBOT	<p>“The presence of a signalized traffic control results in scores of LTS I for each intersection.”</p> <p>This is a faulty assumption/methodology. Shared WALK phases concurrent with permissive vehicle phases (both left and right) is a major impact to pedestrian safety in Portland. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). The vast majority of those crashes occur when the pedestrian has the WALK indication. This data is presented in the City’s draft Pedestrian Master Plan (PedPDX).</p> <p>The existence of the traffic signal alone is therefore not sufficient to ensure either pedestrian safety or pedestrian comfort. An analysis of pedestrian infrastructure and LTS within the study area must indicate in both the Build and No Build scenarios where separated pedestrian phases are/will be provided.</p>
91.	Active Transportation Technical Report	Section 6.1.1.2, Page 61, second bullet	Michelle Marx, PBOT	<p>“While intersection Pedestrian LTS scores would indicate favorable conditions in most areas, people walking along the Broadway/Weidler corridor would encounter stress levels beyond those deemed acceptable for the target design user.”</p> <p>This is a major finding. The Broadway and Weidler corridors are the two principal pedestrian routes in the project area. They are the routes along which pedestrians access the Broadway Bridge to walk between the study area to/from Downtown Portland. These are also the two major transit streets in the study area (streetcar lines and stops) and the routes along which most of the commercial walking generators lie. Pedestrian comfort and safety must be maximized at all intersections along Broadway and Weidler.</p> <p>One of the principal factors impacting pedestrian safety in Portland is shared WALK phases with permissive vehicle left and right turn phases. The project needs to include a mitigation measure to temporally separate pedestrian and vehicle phases at all signalized intersections in the study area, and especially along Broadway and Weidler. This could include leading pedestrian intervals or full separation. It should also include prohibiting “turn on red.”</p> <p>Again, as the report does not provide an explanation of the methodology or factors used to determine LTS scores, it is not clear whether or to what extent signal operations have been evaluated as part of “intersection quality” for pedestrians. This should absolutely be considered in the evaluation, as ten years of crash data shows that the majority of pedestrian crashes in Portland occur due to shared phasing at signalized intersections.</p>
92.	Active Transportation Technical Report	Section 6.1.1.2, Page 61, third bullet	Michelle Marx, PBOT	<p>“Ramp terminal avoidance”: The report does not note that the ramp terminals are now consolidated such that they are located on the two critical east/west pedestrian routes (Broadway and Weidler).</p> <p>These are the routes along which pedestrians access the Broadway Bridge to walk between the study area to/from Downtown Portland. These are also the two major transit routes in the study area and the routes along which most of the commercial walking generators lie. Pedestrian comfort and safety must be maximized at all intersections along Broadway and Weidler.</p> <p>As such, the project must include mitigation measures to maximize pedestrian safety and comfort at all ramp terminals. This must include eliminating permissive right turns and permissive left turns concurrent with pedestrian WALKS, as well as prohibiting “turn on red.” These are appropriate measures given that the study area lies within a designated City of Portland Pedestrian District, a district where application of the City’s 2035 Comprehensive Plan policy prioritizing the operational needs of people walking is paramount.</p>

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93.	Active Transportation Technical Report	Table 20	Michelle Marx, PBOT	<p>Pedestrian findings for three of the five pedestrian routes studied (“Broadway Bridge to/from Williams/Vancouver”; “Broadway Bridge to/from Broadway/Weidler corridor immediately east of I-5 Interchange”; “Broadway Bridge to/from Lloyd”) all require pedestrians to travel through two intersections with PLTS scores representing less favorable conditions for the target design user.</p> <p>This is a major finding. The two intersections with substandard LTS scores occur along the Broadway and Weidler corridors, two principal pedestrian streets in the project area (as indicated by their inclusion in three of the five pedestrian routes studied). Broadway and Weidler are the direct routes along which pedestrians access the Broadway Bridge to walk between the study area to/from Downtown Portland. These are also the two major transit routes in the study area and the routes along which most of the commercial walking generators lie, as well as streetcar stops. Pedestrian comfort and safety must be maximized at all intersections along Broadway and Weidler.</p> <p>One of the principal factors impacting pedestrian safety in Portland is shared WALK phases with permissive vehicle left and right turn phases. The project must include a mitigation measure to temporally separate pedestrian and vehicle phases at all signalized intersections in the study area, and especially along the Broadway and Weidler corridors (given their critical role within the pedestrian network). This may include providing leading pedestrian intervals of fully separated crossing phases. It should also include prohibiting “turn on red.”</p> <p>The project should also include mitigation to provide pedestrian refuge opportunities at ramp terminals to break up crossing distances across multiple lanes of vehicular traffic. This particularly applies to the SB off ramp at Broadway/Vancouver where a refuge between freeway ramp/local street traffic would help break up pedestrian crossing distances at this high stress intersection.</p>
94.	Active Transportation Technical Report	Table 20	Michelle Marx, PBOT	All intersections within the study area, and in particular all with LTS scores higher than pedestrian LTS I need to include mitigations to temporally separate pedestrian and vehicle phases at all signalized intersections (including prohibiting “turn on red”)
95.	Active Transportation Technical Report	6.2.2	Michelle Marx, PBOT	Evaluation of long term and operational impacts for pedestrians must include identifying locations where pedestrian crossing phases will/will not be shared with vehicle turning movements, a critically important factor impacting pedestrian crashes and comfort in Portland.
96.	Active Transportation Technical Report	6.2.1	Michelle Marx, PBOT	<p>Given network wide disruption to pedestrian routes throughout the study area due to construction impacts, the project should include mitigation to address all sidewalk gaps in the area of impact in order to maximize pedestrian route options and access throughout the area of impact during and after construction.</p> <p>The report notes on page 67 “The continued presence of sidewalk gaps would diminish pedestrian convenience, comfort, and safety by forcing foot traffic to either cross to the other side of the street to reach a sidewalk or walk within the roadway. These conditions would be especially challenging for persons with disabilities.”</p>
97.	Active Transportation Technical Report	6.2.2.1, Page 72	Michelle Marx, PBOT	<p>“Similar to the No-Build Alternative, most intersections with higher stress conditions would be along the Broadway corridor, with major contributing factors including longer crossing distances and double turn lanes.”</p> <p>“Under the Build Alternative, Pedestrian LTS scores would improve at three intersections.”</p> <p>It is important to note here that the intersections where LTS scores improve under the Build Alternative are primarily located at intersections with Local Streets. The intersection that degrades from LTS 1 to LTS 3 with the Build Alternative is located along the principal pedestrian corridor connecting Downtown and the Broadway Bridge with the Lloyd District and Irvington Neighborhood, and is located at the intersection of two Major City Walkways.</p> <p>Because the intersections at the freeway on/off ramps along Broadway and Weidler are degraded, and are located along critical pedestrian routes connection people walking to the Broadway Bridge and Downtown Portland (one of the few routes people walking can use to cross the river), the project needs to include pedestrian safety and comfort mitigations at freeway ramp intersections to bring pedestrian LTS to Level 1. This should include separating vehicle turning and pedestrian crossing phases, prohibiting “turn on red,” and providing pedestrian refuge opportunities to break up crossings at ramps.</p>
98.	Active Transportation Technical Report	6.2.2.1	Michelle Marx, PBOT	Because the report does not provide a technical methodology explaining how LTS factors are calculated (including which factors are included and how they are quantified) it is impossible for reviewers to comment on the accuracy of these findings.
99.	Active Transportation Technical Report	6.2.3, P. 81	Michelle Marx, PBOT	“intersection complexity” is never defined in the report, nor does the report tell the reader exactly how “intersection complexity” will be reduced. It is therefore difficult as a reviewer to concur or not concur with the statement “by reducing intersection complexity, upgraded intersections along new or reconstructed streets could improve pedestrian convenience, comfort, and safety.”
100.	Active Transportation Technical Report	6.3.3, p.85	Michelle Marx, PBOT	<p>Finding in the first bullet in Section 6.3.3 identifies “significant” construction related impacts for City Walkways. “Long construction periods and circuitous detour routes could impact the continuity and quality of the existing walking and biking networks...As a result construction could temporarily suppress walking and bicycling rates within the API and inordinately affect people who are dependent on walking and biking for their transportation.”</p> <p>Mitigation for this significant project impact should include construction of all identified sidewalk and crossing gaps within the area of influence in order to maximize pedestrian route choices and accessibility during and after construction.</p> <p>Short term impacts under the Build Alternative related to project construction need to note that the lengthy closures of “key walking and bicycling routes” will impact the principal walking</p>

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				<p>route to/from Downtown Portland and destinations east of the river (including the Lloyd District, Williams and Vancouver, Moda Center, and the Irvington Neighborhood). The pedestrian connection that Broadway and Weidler serve between these destinations east of the river and the Broadway Bridge is significant (there are limited locations in Portland where pedestrians can cross the river to travel to/from Downtown). Pedestrian diversion will be significant</p> <p>This will ensure that pedestrians are able to make alternative route choices throughout the area of impact. While route-based approaches to detours are appropriate for bicycle users, we know that pedestrians tend to move more fluidly within a district since pedestrian origins/destinations are diffuse. Addressing pedestrian network gaps within the area of influence will help mitigate for construction closures by ensuring that there are adequate facilities (sidewalks and crossings) throughout the area of impact to help absorb pedestrian diversion.</p>
101.	Active Transportation Technical Report	6.3.3, Page 86	Michelle Marx, PBOT	<p>Under "Results of Cumulative Impact Analysis:</p> <p>The statement "The conditions for walking in the area would benefit from improved sidewalk connections and pedestrian crossings" gives a false impression of the pedestrian infrastructure that the project is currently scoped to provide. The project does not currently intend to provide any new pedestrian crossings to help address identified gaps (see 5.1.4). Nor does the report tell us how existing pedestrian crossings will be improved (no design details are provided).</p> <p>The sidewalk gaps that the project currently proposes to address is limited to 800 feet of new sidewalk construction along N Williams (formerly NE Wheeler) between Clackamas and Multnomah. Approximately 2,600 feet of sidewalk gap will remain under the Build Scenario.</p> <p>Providing 800 feet of new sidewalk and no additional crossings does not warrant the statement above, nor the subsequent assumption that the projects new pedestrian infrastructure will result in increased walking activity in the area. To make the claim that the project will improve conditions for walking in the area of influence and the project area, the project needs to address all identified sidewalk gaps (not just 800 feet) and all crossing gaps (as opposed to zero).</p>
102.	Active Transportation Technical Report	6.4, page 88	Michelle Marx, PBOT	<p>Short term impacts under the Build Alternative related to project construction need to note that the lengthy closures of "key walking and bicycling routes" will impact <u>the principal walking route</u> to/from Downtown Portland and destinations east of the river (including the Lloyd District, Williams and Vancouver, Moda Center, and the Irvington Neighborhood). The pedestrian connection that Broadway and Weidler serve between these destinations east of the river and the Broadway Bridge is significant (there are limited locations in Portland where pedestrians can cross the river to travel to/from Downtown). Pedestrian diversion will be significant</p> <p>Mitigation for this major impact should include addressing all sidewalk gaps and pedestrian crossing gaps within the area of influence in order to maximize pedestrian route choice and accessibility during construction. This will ensure that pedestrians are able to make alternative route choices throughout the area of impact. While route-based approaches to detours are appropriate for bicycle users, we know that pedestrians tend to move more fluidly within a district since pedestrian origins/destinations are diffuse. Addressing pedestrian network gaps within the area of influence will help mitigate for construction closures by ensuring that there are adequate facilities (sidewalks and crossings) throughout the area of impact to help absorb pedestrian diversion.</p>
103.	Active Transportation Technical Report	6.4, p 88	Michelle Marx, PBOT	<p>Bullet #2 under "Direct Impacts":</p> <p>The bullet notes that the Build Scenario will include direct impact in that it will provide "pedestrian crossing enhancements on N/NE Broadway and N/NE Weidler," but the report does not tell us what those enhancements are. There is no design detail or scope language indicating what "pedestrian enhancements" will be provided at crossings, nor at which crossings. This should therefore not be identified as a project impact.</p>
104.	Active Transportation Technical Report	6.4, p 88	Michelle Marx, PBOT	<p>Bullet #4 under "Direct Impacts":</p> <p>"Five study intersections would exhibit characteristics exceeding tolerable level of stress for people walking." This bullet should note even further that the intersections where LTS scores improve under the Build Alternative are primarily located at intersections with Local Streets. The intersection that degrades from LTS 1 to LTS 3 with the Build Alternative is located along the principal pedestrian corridor connecting Downtown and the Broadway Bridge with the Lloyd District and Irvington Neighborhood, and is located at the intersection of two Major City Walkways.</p>
105.	Active Transportation Technical Report	6.4, p.88	Michelle Marx, PBOT	<p>Bullet #6 under "Direct Impacts":</p> <p>The report notes that physical separation between motorized/non-motorized users would increase. However, the report fails to evaluate the temporal separation between users at signalized crossings (e.g., where people walking will be required to share phases with turning vehicles, and therefore not be fully separated from motor vehicle traffic). This is a critical factor for pedestrian safety. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). The vast majority of those crashes occur when the pedestrian has the WALK indication. This data is presented in the City's draft Pedestrian Master Plan (PedPDX). Shared WALK phases concurrent with permissive vehicle phases (both left and right) is a major impact to pedestrian safety in Portland.</p> <p>The existence of the traffic signal alone is therefore not a sufficient pedestrian crossing. As such, an analysis of pedestrian infrastructure within the study area must indicate in both the Build and No Build scenarios where separated pedestrian phases are/will be provided.</p> <p>The analysis of impacts to pedestrian comfort and safety as provided in the report is therefore not complete.</p>

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106.	Active Transportation Technical Report	6.4, p.89	Michelle Marx, PBOT	<p>The following statement is incomplete and misleading:</p> <p>“Overall conditions for people walking would also be similar to the No-Build Alternative. The relocation of the I-5 SB ramp would improve the intersection LTS score at the current location and decrease its LTS score at the new location”</p> <p>What is not stated is that the new ramp location would lie along the primary pedestrian route to the Broadway Bridge and Downtown, while the current ramp location is at a very low-use street that does not provide a direct pedestrian connection to any origins/destinations and where there is little pedestrian traffic.</p> <p>The relocation of the SB ramp to NE Weidler St. (a critical pedestrian corridor linking the Broadway Bridge and Downtown Portland to the study area and other destinations east of the river) <u>is a significant impact</u> to pedestrian safety and comfort that the report does not currently identify. This impact needs to be mitigated. Mitigation should include providing design improvements sufficient to bring the intersection up to pedestrian LTS I. It should also include separating pedestrian crossing phases from vehicular turning phases and prohibiting “turn on red” at this location.</p>
107.	Active Transportation Technical Report	p.89	Michelle Marx, PBOT	<p>“Compared with the NO-Build Alternative, the degree of separation between motorized and non-motorized users would generally improve on all five of the primary travel routes.”</p> <p>Without identifying where pedestrian WALK phases will be shared/not shared with vehicular turning phases, this statement / claim to impact cannot be made.</p> <p>The report fails to evaluate the temporal separation between users at signalized crossings (e.g., where people walking will be required to share phases with turning vehicles, and therefore not be fully separated from motor vehicle traffic). This is a critical factor for pedestrian safety. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). The vast majority of those crashes occur when the pedestrian has the WALK indication. This data is presented in the City’s draft Pedestrian Master Plan (PedPDX). Shared WALK phases concurrent with permissive vehicle phases (both left and right) is a major impact to pedestrian safety in Portland.</p>
108.	Active Transportation Technical Report	p.89	Michelle Marx, PBOT	<p>“Similar to the No-Build Alternative, the number of ramp terminal intersections encountered by people walking and bicycling would generally depend on the route and the users’ direction of travel and would range between zero and two crossings. Several routes would include fewer ramp terminal crossings compared to the No-Build.”</p> <p>This statement fails to acknowledge that under the Build Scenario, ramp terminals are now consolidated along the principal pedestrian route connecting the study area (and all other destinations east of the river) to the Broadway Bridge and Downtown Portland. Furthermore Broadway and Weidler are key pedestrian generators and pedestrian routes by merit of the streetcar infrastructure located along these routes. Within the study area, pedestrian activity will continue to be concentrated along Broadway and Weidler in order to access the streetcar.</p> <p>This major impact to pedestrian safety and comfort that the concentration of freeway ramps creates along the two most important pedestrian streets in the study area needs to be acknowledged and mitigated for. Mitigation should include providing design improvements sufficient to bring the intersection up to pedestrian LTS I. It should also include separating pedestrian crossing phases from vehicular turning phases and prohibiting “turn on red” at this location.</p>
109.	Active Transportation Technical Report	p.89	Michelle Marx, PBOT	<p>“Compared with the No-Build Alternative, people walking and bicycling would encounter additional climbing and descending as well as relatively steep slopes in some areas.”</p> <p>The project must mitigate for this finding. The mitigation should be to increase the safety and comfort of the on- and off-ramp intersections along Halsey and Weidler to pedestrian LTS I in order to provide a comfortable alternative route for pedestrians who cannot negotiate the steep grades along the Hancock/Dixon route. It is not acceptable that the alternative route choice to the steep grades at Hancock/Dixon is to walk along a series of freeway on and off-ramps. The project needs to design these ramp intersections to LTS I. Mitigation should also include separating pedestrian crossing phases from vehicle turning phases and prohibiting “turn on red.” We know that the majority of pedestrian crashes in Portland occur when pedestrians have the WALK signal at intersections.</p>
110.	Active Transportation Technical Report	p.91	Michelle Marx, PBOT	<p>Cumulative Impacts:</p> <p>The statement “Improved sidewalk connections and pedestrian crossings...would increase the attractiveness of walking” gives a false impression of the pedestrian infrastructure that the project is currently scoped to provide. The project does not currently intend to provide any new pedestrian crossings to help address identified gaps (see 5.1.4). Nor does the report tell us how existing pedestrian crossings will be improved (no design details are provided).</p> <p>The sidewalk gaps that the project currently proposes to address is limited to 800 feet of new sidewalk construction along N Williams (formerly NE Wheeler) between Clackamas and Multnomah. Approximately 2,600 feet of sidewalk gap will remain under the Build Scenario.</p> <p>Providing 800 feet of new sidewalk and no additional crossings does not warrant the statement above, nor the subsequent assumption that the projects new pedestrian infrastructure will result in increased walking activity in the area. To make the claim that the project will improve conditions for walking in the area of influence and the project area, the project needs to address all identified sidewalk gaps (not just 800 feet) and all crossing gaps (as opposed to zero).</p>
111.	Active Transportation Technical Report	p.92	Michelle Marx, PBOT	<p>Mitigation language noting that the design “should strive” for pedestrian LTS scores of I is not adequate or measurable. The design should be required to fully attain pedestrian LTS I at all intersections in the study area.</p>

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112.	Active Transportation Technical Report	p.92	Michelle Marx, PBOT	<p>“Provide physical and temporal separation at higher risk intersections” is not sufficient. Mitigation language needs to note that temporal separation needs to be provided at <u>all</u> signalized intersections in the study area. This may include full separation or leading pedestrian intervals. It also needs to include “no turn on red.”</p> <p>Separating pedestrian crossing movements from turning vehicle movements is a critical factor for pedestrian safety in Portland. A recent City analysis of ten years of pedestrian crash data indicates that over 40% of pedestrian crashes in Portland occur at traffic signals (approximately 30% of all fatal and serious injury pedestrian crashes). <u>The vast majority of those crashes occur when the pedestrian has the WALK indication.</u> This data is presented in the City’s draft Pedestrian Master Plan (PedPDX). Shared WALK phases concurrent with permissive vehicle phases (both left and right, including “turn on red”) is a major impact to pedestrian safety in Portland.</p>
113.	Active Transportation Technical Report	p.92	Michelle Marx, PBOT	<p>Add mitigation for construction impacts to address all sidewalk gaps and pedestrian crossing gaps within the area of influence in order to maximize pedestrian route choice and accessibility during construction. This will ensure that pedestrians are able to make alternative route choices throughout the area of impact. While route-based approaches to detours are appropriate for bicycle users, we know that pedestrians tend to move more fluidly within a district since pedestrian origins/destinations are diffuse. Addressing pedestrian network gaps within the area of influence will help mitigate for construction closures by ensuring that there are adequate facilities (sidewalks and crossings) throughout the area of impact to help absorb pedestrian diversion.</p>
114.	Active Transportation Technical Report	92	Roger Geller, PBOT	<p>Of significant concern is the potential impact from construction to maintaining and improving upon existing high bicycle commute levels in the area to be affected by removal of Broadway, Weidler, Vancouver and Williams.</p> <p>It does not appear that the project has identified specific and sufficient actions to mitigate against the safety threats posed by traffic diversion that will result from the construction phase of the project.</p> <p>The EA states that “the extent and nature of the construction impacts could significantly impact conditions for walking and biking in the short term.” (p. 92, Active Transportation Technical Report) It also states that the “4- to 5-year construction period anticipated for the Build Alternative could significantly impact bicycle and pedestrian conditions. The CPC Plan does not provide design details for temporary pedestrian/bicycle facilities or details for maintaining pedestrian and bicycle movement throughout the entirety of the Project’s construction timeline.”</p> <p>To the maximum extent possible the project should:</p> <ul style="list-style-type: none"> • Use City of Portland guidelines as identified in the “Neighborhood Greenway Assessment Report” for both daily and hourly traffic volumes • Established neighborhood greenways (Tillamook and Rodney/2nd/3rd) are not to be used as formal motor vehicle detour routes • Monitor and employ traffic diversion to maintain recommended hourly and daily automotive volumes on existing routes and other corridors to serve as bicycle detour routes <p>The project should insure that conditions for people walking and bicycling through the area will remain safe and comfortable (consistent with City policies).</p>
115.	Active Transportation Technical Report	88, 92	Roger Geller, PBOT	<p>The EA states: “Where detour routes for bikeways would also carry detouring vehicular traffic, as may be the case on Tillamook, identify locations for traffic calming measures to ensure the speed and volumes of traffic do not exceed the Neighborhood Greenway thresholds.”</p> <p>Reword: “Where detour routes for bikeways would also carry detouring vehicular traffic, as may be the case on Tillamook, identify locations for traffic calming measures—including traffic diversion—to ensure the speed and volumes of traffic do not exceed the Neighborhood Greenway thresholds for both daily and hourly volumes.”</p> <p>The EA states that “Multimodal conflicts could increase because Flint would be a motor vehicle detour route during the Vancouver structure demolition and re-construction and would also be used as a detour route for bicyclists.” Flint Street is a shared roadway that carries significant volumes of bicycle traffic as it is used by the Vancouver Avenue traffic destined for the Broadway Bridge. It is also a street with a Portland Public School with a chaotic morning drop-off. Introducing people driving along with middle school students being driven, walking and bicycling to the school, as well as an increased number of people bicycling on the corridor threatens to degrade the conditions for safe operations on this critical corridor.</p>
116.	Active Transportation Technical Report	16	Roger Geller, PBOT	<p>“Two NB travel lanes along the western side of N Williams to provide access to the I-5 NB on-ramp, through movements NB on N Williams, and left-turn movements onto N Broadway.”</p> <p>This will require sufficient bicycle storage at Williams and Broadway</p>
117.	Active Transportation Technical Report	16	Roger Geller, PBOT	<p>Two SB lanes along the eastern side of N Williams to provide access to the I-5 SB on-ramp or left-turn movements onto NE Weidler.</p> <p>This will require sufficient bicycle storage at Williams and Weidler</p>
118.	Active Transportation Technical Report	15	Roger Geller, PBOT	<p>Figure 6 accurately conveys travel lanes on I-5, shape of freeway covers and presence of sidewalks and Williams pathway. However, diagram does not provide sufficient information about active transportation facilities. Need for bicycle storage at intersections (as above, and elsewhere) does not appear to be provided in project footprint.</p>
119.	Active Transportation Technical Report	16	Roger Geller, PBOT	<p>“Traffic calming measures would be incorporated east of the intersection of N/NE Hancock and N Williams to discourage use of NE Hancock by through motor vehicle traffic.”</p> <p>Reword: “Traffic calming measures, especially traffic diversion, would be incorporated east of the intersection of N/NE Hancock and N Williams to discourage use of NE Hancock by through motor vehicle traffic.”</p>

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				My understanding is that there would be <u>traffic diversion</u> not “traffic calming” to <u>prevent</u> use of NE Hancock by through motor vehicle traffic rather than to simply “discourage” it. Traffic calming slows traffic. It does not keep it off the street.
120.	Active Transportation Technical Report	18	Roger Geller, PBOT	<p>“The bicycle lane on N Vancouver would also be upgraded between N Hancock and N Broadway, including a new bicycle jug-handle at the N Vancouver and N Broadway intersection to facilitate right-turn movements for bicycles from N Vancouver to N Broadway.”</p> <p>Improvements to N Vancouver (buffered bicycle lane) should be included in the No Build scenario. Not clear that Build scenario will improve Vancouver beyond that. Bike box is required to mitigate for low of Flint.</p>
121.	Active Transportation Technical Report	18	Roger Geller, PBOT	<p>“New bicycle and pedestrian connections would also be made between the N Flint/N Tillamook intersection and the new Hancock-Dixon connection.”</p> <p>Not clear what these “new connections” will be. Please describe more fully.</p>
122.	Active Transportation Technical Report	22	Roger Geller, PBOT	<p>3.3.2.1 Comprehensive Plan</p> <p>EA neglects to include Policy 9.20 which says city should “create conditions that make bicycling more attractive than driving...”</p>
123.	Active Transportation Technical Report	30	Roger Geller, PBOT	<p>“Bicycle: ODOT’s target design user falls within the Bicycle LTS 2 category, defined as follows: “Represents little traffic stress but requires more attention than young children can handle, so is suitable for teen and adult cyclists with adequate bike handling skills. Traffic speeds are slightly higher, but speed differentials are still low, and roadways can be up to three lanes wide in total for both directions. Intersections are not difficult to cross for most teenagers and adults. Typical locations include collector-level streets with bike lanes or a central business district” (ODOT 2016b).”</p> <p>This is different from PBOT’s design user (by policy, “all ages and abilities”, which we typically anthropomorphize as a 12-year old). The conditions ODOT describes that an LTS 2 user (Peter Furth’s version of “intersected but concerned”) would find comfortable is different from PBOT’s. Based on guidance from NACTO, which is included in our protected bicycle lane design guide (referenced earlier in the EA) would require protected lanes on most collector-level streets, not bike lanes.</p> <p>They identify this difference but did not include it in their analysis, which is not capable of distinguishing between these differences.</p> <p>Recommendation: design the project roadways consistent with City of Portland policies, which conform most closely with ODOT’s LTS 1 user.</p>
124.	Active Transportation Technical Report	31	Roger Geller, PBOT	<p>“The Project team based the No-Build and Build scenarios assessment on conditions encountered by pedestrians and bicyclists along five primary travel routes traversing the API, as listed below. These five routes correspond to the primary origin-destination patterns in the API.”</p> <p>The route-based analysis does not reflect the full network effects of the Build versus the No-Build scenarios. Effects on bicycle transportation extend beyond the direct area of the API.</p> <p>This will need to be considered when developing Traffic Management Plans.</p>
125.	Active Transportation Technical Report	32	Roger Geller, PBOT	<p>4.4 Cumulative Impacts</p> <p>Document does not identify funded improvements to N Vancouver to convert existing bicycle lane to buffered bicycle lane.</p>
126.	Active Transportation Technical Report	53	Roger Geller, PBOT	<p>“Challenging intersection conditions include the following: • Double turn lanes (e.g., Broadway at Williams)”</p> <p>This is not a “challenging intersection” by virtue of the protected bicycle signal phase, noted in the EA in this same section.</p>
127.	Active Transportation Technical Report	58	Roger Geller, PBOT	<p>6.1.1 Direct Impacts</p> <p>Fails to mention buffered bicycle lanes on N Vancouver as part of the No-Build scenario (they are funded).</p>
128.	Active Transportation Technical Report	60	Roger Geller, PBOT	<p>6.1.1.2 Route-based conditions assessment</p> <p>The route-based analysis does not reflect the full network effects of the Build versus the No-Build scenarios. Effects on bicycle transportation extend beyond the direct area of the API.</p> <p>This will need to be considered when developing Traffic Management Plans.</p>
129.	Active Transportation Technical Report	Figure 22	Roger Geller, PBOT	<p>Disagree that the solid line routing showing in Figure 22 identifies “the route that would likely be most suitable and attractive to the target design user” (p. 60) as follows:</p> <p><u>Broadway Bridge to/from Williams/Vancouver.</u> Most direct route is Vancouver to Broadway. Using Hancock-Dixon as shown in Figure 22 adds more than 100’ extra travel distance and involves steep grades. Using Hancock-Dixon pathway adds more than 400’ extra travel distance.</p> <p>City designs bikeways for “all ages and abilities”, equivalent to LTS 1. Major City Bikeways are to be “suitable and attractive” for all users.</p>
130.	Active Transportation Technical Report	Figure 22	Roger Geller, PBOT	<p>Disagree that the length of route for westbound travel between Broadway Bridge to the Vancouver-Williams corridor is shorter in the Build scenario. City finds no difference using primary No-Build routing (Vancouver to Broadway routing; Major City Bikeway to Major City Bikeway).</p>
131.	Active Transportation Technical Report	Table 23	Roger Geller, PBOT	<p>Disagree that northbound bicycle delay for Steel Bridge to Broadway/Weidler is “slight”. Route passes through two signalized intersections, which can create delay of 60 seconds or more. That is more than delay resulting from 680’ of additional travel distance. 680’ at ~ 10 mph travel time = 46 seconds delay, which was rated as “moderate”.</p>

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132.	Transportation Safety Technical Report p. ES-3, and 55.	ES-3; 55	Roger Geller, PBOT	<p>“The Project may decrease the risk of crashes at the following intersections: • N Weidler/N Vancouver: Expected decrease in bicycle crashes due to the proposed Clackamas bicycle and pedestrian bridge decreasing bicycle presence at this intersection (reduced exposure for bicyclists)”</p> <p>Bicycle volumes will be expected to increase at the Weidler/Vancouver intersection. Weidler is classified as a Major City Bikeway and is expected to carry the majority of bicycle trips traveling east-west through this corridor. The Clackamas bicycle and pedestrian bridge is classified as a City Bikeway, as are the roadways connecting to it. Mobility offered by the Clackamas corridor is limited by the nature of the network, which ends at NE 7th Avenue to the east and N Larrabee to the west. This limited extent will necessarily limit the traffic attracted to this facility.</p>
133.	Transportation Safety Technical Report	34	Roger Geller, PBOT	<p>5.1 Highway Crash Analysis</p> <p>Does not repeat important information from Executive Summary that lone fatality and one serious injury crash were due to pedestrians on the freeway. Provides inaccurate picture of crash history.</p>
134.	Transportation Safety Technical Report	55	Roger Geller, PBOT	<p>“The N Vancouver/N/NE Hancock intersection would be a new intersection in the Build Alternative and is expected to have moderate motorist and pedestrian exposure and low bicycle exposure based on volumes. The intersection is anticipated to have moderate complexity based on the proposed intersection geometry and moderate risk based on speed limit.”</p> <p>This intersection is expected to have very high volumes of bicycle traffic. All the traffic currently diverting from Vancouver to Russell/Flint will instead go through this intersection to access either Broadway (continuing south) or the Rose Quarter (turning on Hancock to Williams). There will need to be significant storage of bikes at this intersection to efficiently and safely handle turning movements.</p>
135.	Transportation Safety Technical Report	53	Roger Geller, PBOT	<p>6.2.2.3 Local Street Multimodal Risk/Safety Assessment</p> <p>Does not consider intersection of Williams/Weidler, which will have a new ramp terminal. Similarly, does not consider intersection of Broadway/Williams, which is beginning of ramp terminal.</p>
136.	Transportation Safety Technical Report	53	Roger Geller, PBOT	<p>“Additional intersection complexities unique to the Build Alternative would include the following: o Left-side bike lanes transitioning to right-side bike lanes (e.g., N Vancouver at N Broadway)”</p> <p>This reference is not clear. Where would bicycle lanes on the left side of Vancouver transition to bicycle lanes to the right? South of Broadway.</p> <p>Dominant move on Vancouver will be: Right side bicycle lanes on N Vancouver will need to transition to left side bicycle lane well in advance of Broadway. Transition will need to happen at a signalized intersection, likely at Hancock.</p>
137.	Appendix F. Summary of Mitigation Measures p. F-7	F-7	Roger Geller, PBOT	<p>“Intersection design is a critical component of enhancing pedestrian and bicycle safety in the Build Alternative, and the designs for the impacted intersections in the API would strive for low stress levels for bicycle and pedestrian traffic.”</p> <p>“Strive for low stress levels for bicycle and pedestrian traffic” is very weak language. It sounds like you may not be able to create low-stress conditions for bicycling in the Build scenario at intersections.</p> <p>A positive statement: “the project will create low-stress conditions for bicycling and walking at all project intersections using best available design practices in accordance with City of Portland approval” would be better phrasing.</p>
138.	Appendix F. Summary of Mitigation Measures p. F-7	F-7	Roger Geller, PBOT	<p>“Where detour routes for bikeways would also carry detouring vehicular traffic, identify locations for traffic calming measures to ensure the speed and volumes of traffic do not exceed the Neighborhood Greenway thresholds.”</p> <p>Modify to: “Where detour routes for bikeways would also carry detouring vehicular traffic, identify locations for traffic calming measures, including traffic diversion, to ensure the speed and volumes of traffic do not exceed the Neighborhood Greenway thresholds for daily and hourly motor vehicle traffic.”</p>
139.	Appendix F. Summary of Mitigation Measures p. F-8	F-8	Roger Geller, PBOT	<p>“The Oregon Bicycle and Pedestrian Plan and the City of Portland Portland Bicycle Plan for 2030, provide example best practices for transportation facility design that should be considered for this Project. o Oregon Bicycle and Pedestrian Plan https://www.oregon.gov/ODOT/Planning/Pages/Plans.aspx#accordion-collapse-ctl00_ctl00_ctl22_g_85545598_99ee_4a1b_acd0_f0bee524051a_ctl03 o Portland Bicycle Plan for 2030 https://www.portlandoregon.gov/transportation/article/289122”</p> <p>Link to Oregon site does not provide direct link to Oregon Bicycle and Pedestrian Plan. Do not use Oregon Bicycle and Pedestrian Plan for best practice designs as that plan does not reflect best practice designs. Not clear that plan actually includes any designs. Similarly, do not use Portland’s Bicycle Plan for 2030 for best practice designs as that does not reflect best practice designs, either. Bicycle Plan has an appendix that shows design considerations from 2010. It is not a design document. Rather, use Portland Protected Bicycle Lane Planning and Design Guide, AASHTO bicycle design guidance (newest version, when it comes out), NACTO guides and other guidance recommended by City of Portland that reflects best practice designs.</p>
140.	Transportation Safety Technical Report p. 50	50	Roger Geller, PBOT	<p>“While the Broadway multimodal improvements project would address current pedestrian deficiencies, addition of a protected bike lane could introduce right-hook collision potential for bicyclists at locations where bicycle lanes currently do not exist.”</p> <p>There is no place in the Broadway corridor associated with this project where bicycle lanes do not currently exist.</p>
141.	Transportation Safety Technical Report p. 51	51	Roger Geller, PBOT	<p>“Pedestrian and bicycle facility improvements would be consistent with best practices and NACTO guidance.”</p>

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				Statement should be that "...improvements would be consistent with best practice design guidance available at the time."
142.	Transportation Safety Technical Report p. 55	55	Roger Geller, PBOT	<p>"At the intersection of N Weidler/N Vancouver, there is an expected decrease in bicycle crashes due to the proposed Clackamas bicycle and pedestrian bridge decreasing bicycle presence at this intersection (reduced exposure for bicyclists)"</p> <p>There will not be decreased exposure for people bicycling at this intersection. This is an intersection of two Major City Bikeways. The city's transportation efforts are focused on increasing bicycle transportation. Portland's efforts have resulted in dramatically increased bicycle use. Portland's future efforts are to continue to increase bicycle use.</p> <p>Because the Clackamas structure serves a limited travel shed (it is accessed by a City Bikeway that ends at NE 7th Avenue) it's use for carrying large volumes of transportation trips is similarly limited.</p> <p>Replace with:</p> <p>"Even with the addition of the Clackamas bicycle and pedestrian bridge the intersection of N Weidler/N Vancouver—an intersection of two major city bikeways—is expected to continue to see high and growing volumes of people bicycling. Design measures to improve the safety of people bicycling through this area will be needed."</p>
143.	Transportation Safety Technical Report p. 55	55	Roger Geller, PBOT	<p>Not addressed in this assessment is the intersection of Williams/Multnomah. It is possible operations at this intersection were neglected because of uncertainty as to the type of facility to be provided along Williams south of Ramsay.</p> <p>If a two-way pathway is provided on the east side Williams, then the intersection with Multnomah poses a significant challenge as southbound cyclists will need to enter the transit center on the diagonal from the NE corner to the two-way bikeway running through the center. High expected volumes of people bicycling on this corridor will demand significant green time for this diagonal movement. That, in turn, could negatively impact transit operations. Significant delay for southbound cyclists could result in disregards of the signal. Such was the case at the intersection of Interstate and Wheeler before a diagonal signal phase was installed with sufficient time to the large queues of people bicycling north.</p>
144.	Active Transportation Technical Report	67	Roger Geller, PBOT	<p>"• Broadway/Weidler/Williams Cover: 24 months, beginning in early 2023 • Vancouver/Hancock Cover: 24 months, beginning in late 2024 • Clackamas Bicycle and Pedestrian Overcrossing: 24 months, beginning in 2026"</p> <p>Phase project so that Clackamas overcrossing is constructed first as it could provide a low-stress route during construction.</p>
145.	Active Transportation Technical Report	68	Roger Geller, PBOT	<p>"The CPC Plan does not address the following: • Design details for temporary pedestrian/bicycle facilities (e.g., facility typologies, widths, and signage) • Details for maintaining pedestrian and bicycle movement throughout the entirety of the Project's construction timeline</p> <p>Add: "The detailed Construction Phasing Plan will address: • Design details for temporary pedestrian/bicycle facilities (e.g., facility typologies, widths, and signage) • Details for maintaining pedestrian and bicycle movement throughout the entirety of the Project's construction timeline"</p>
146.	Active Transportation Technical Report	74	Roger Geller, PBOT	<p>6.2.2.2 Route Based Conditions Assessment</p> <p>The evaluation of whether conditions will improve for bicycling do not include enough information for a complete assessment. This section, and Table 23, indicate significant improvements. However, elements left unmeasured include signal timing and storage space for bicycle turning movements. These are both critical elements that will have to be addressed in the design process to ensure that conditions for bicycle transportation show improvement in the Build condition.</p> <p>While the quality of facilities will in some instances be better than the No Build and route directness will improve in some cases, the overall cycling experience can still deteriorate because of increased delay. Minimizing delay is a key element in the design of Portland's bikeways and bicycle transportation networks. It is codified in our policies.</p> <p>There are several locations where storage and signal timing will be key considerations. One is at the foot of Vancouver at Broadway where a heavy demand for the southbound to westbound movement will necessitate significant storage for efficient operations. It is not clear that sufficient storage is available.</p> <p>A second location is at Williams and Hancock. There, people bicycling northbound will have to transition from a right-side facility to the existing left-side bicycle lanes. This will need to be done at a signal (Hancock) to provide for low-stress operations. The diagonal movement will require at least three-phase operation of the signal. It is not clear that sufficient time will be provided for this movement.</p> <p>A third location is eastbound on Hancock at Williams. Bicycle traffic southbound on Vancouver will need to head east on Hancock to access the two-way pathway on the east side of Williams. Without a large bicycle box at this intersection there will be a long linear queue of people bicycling needing to make the transition to the Williams facility. Given the totality of demands on this signal it will be difficult to allot the time needed to clear a linear queue of eastbound cyclists. Once again, a large bike box would be needed.</p> <p>A fourth location is at the intersection of Multnomah and Williams. A potential eastside two-way bikeway running south from Ramsay would necessitate a diagonal movement into the existing bicycle facility in the transit center. In the absence of modeling and design it is difficult to assess if a large storage area could be provided for a heavy southbound movement. It is also</p>

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				<p>difficult to assess if there would be sufficient time in the signal cycle to allow for a third signal phase at this intersection and what impact that might have on transit operations.</p> <p>Thus, while the project can point to a few specific improvements to the bicycle network beyond what will be provided in the No Build scenario, an overall assessment of any benefit to actual people movement cannot be made on the analysis provided. Were delay to be significant at the above four intersections it is possible that the overall environment for bicycling could degrade in the Build versus the No Build scenario.</p> <p>The EA is correct when it states (on page 86) that: "Because people walking and bicycling are sensitive to conditions on a more granular scale, the active transportation network's functionality and attractiveness would largely depend on design details, which are less defined at this level of analysis. Route directness, level of stress and risk, grades, delay, and other factors would collectively inform the user's perception."</p>
147.	Active Transportation Technical Report	85	Roger Geller, PBOT	<p>"Though the exact phasing and duration of construction-related closures and detours are not yet known, they are anticipated to significantly affect City Bikeways and City Walkways. Long construction periods and circuitous detour routes could impact the continuity and quality of the existing walking and biking networks. Where detour routes for autos and people biking overlap, there is potential for modal conflict and degradation of bicycle facilities. As a result, construction could temporarily suppress walking and bicycling rates within the API, and inordinately affect people who are dependent on walking and biking for their transportation."</p> <p>These above-described conditions pose a significant threat to the bicycle-trip-rich travel shed served by the project area. Because of this, a fully fleshed-out traffic management plan is needed to determine if the project will depress and derail the advances made in bicycle transportation in this area.</p>
148.	Active Transportation Technical Report	88	Roger Geller, PBOT	<p>"Demolition of roadway structures over I-5 (e.g., Williams, Vancouver, Broadway, Weidler) would result in temporary but potentially lengthy closures of key walking and bicycling routes, thereby requiring people walking and biking to use alternative routes. The exact duration and timing of such closures has not been determined. Because several of these alternative routes, such as Tillamook, could potentially serve as motor vehicle detour routes, the potential for multimodal conflicts could increase and the quality of the bikeways could decrease. Because the Clackamas bicycle and pedestrian bridge would be constructed in a later phase of the Project, this connection would not yet be available during most of the Project's construction phases. Together, the combination of closures and detours has potential to impact travel time, safety, and level of stress on existing bikeways."</p> <p>Tillamook cannot be used as a motor vehicle detour route. It is a significant bicycle route in the corridor that will figure prominently in handling bicycle traffic before, during and after construction. As stated, this would cause the quality to decrease.</p> <p>Consideration should be made for the Clackamas structure to be built first to serve as a low-stress route for people bicycling and walking during the construction phase.</p> <p>That the EA suggests that safety of traveling on a bikeway will be compromised during the construction phase it counter to city policy and to the purpose and need of the EA. More work needs to be done to ensure that high-quality, low-stress routes are available during construction for people walking and bicycling.</p>
149.	Active Transportation Technical Report	89	Roger Geller, PBOT	<p>"Removal of the Flint overcrossing structure would sever a major north-south bicycle connection. However, the Hancock/Dixon connector would generally replace this link. This new connection would follow substantially steeper grades compared with the existing Flint structure."</p> <p>Disagree that Hancock-Dixon would replace the Flint structure. The path of least resistance for bicycle travel would straight on Vancouver to the bike box on Broadway and then to the bridge. A 10% grade can be difficult for people to negotiate, even in the downhill direction.</p> <p>Reword: "Removal of the Flint overcrossing structure would sever a major north-south bicycle connection. However, changes at the Broadway/Vancouver intersection will facilitate southbound access to the Broadway Bridge. The Hancock/Dixon connector would provide another option though this new connection would follow substantially steeper grades compared with the existing Flint structure."</p>
150.	Active Transportation Technical Report	86	Roger Geller, PBOT	<p>6.4 Conclusions</p> <p>City does not necessarily agree with all of EA's assessment of improvements to bicycle transportation routes. As noted earlier, EA did not assess routes from a broader network perspective but instead seemed to select trip origin and destinations within the defined project boundaries. Such O/D pairs were artificially truncated.</p> <p>Similarly, the only facility improvements in the Build relative to the No Build are Broadway and Weidler in the project area (Flint to 2nd?), the two-way pathway on N Williams, and the Clackamas structure.</p>
151.	Active Transportation Technical Report	93	Roger Geller, PBOT	<p>"The Temporary Traffic Control plan should follow the City of Portland's Traffic Design Manual Volume 2: Temporary Traffic Control and strive to meet the highest level of accommodation for bicyclists and pedestrians."</p> <p>This manual is meant for temporary conditions. The facilities implemented are typically less than what would be desired for full accommodation for people bicycling. This project needs to achieve a higher standard given its stated concerns for the safety of vulnerable roadway users. It is also important for maintaining and advancing progress made on elevating active transportation mode splits. Anything less than realizing the goals of best practice design (full safety and comfort for active transportation users) threatens not only the safety of those users but also advancing Portland's policy goals.</p> <p>Reword: "Because the disruption to the city's bicycle and pedestrian routes through this area will last for years, the Temporary Traffic Control plan should be created with an understanding that the</p>

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				length of temporary routing will have a permanent feel. The project should meet the highest level of accommodation for bicyclists and pedestrians.”
152.	EA Main Document	13, 3 rd paragraph	Amanda Owings, PBOT	What is the amount of added surface space? How can this be utilized? Developed?
153.	EA Main Document	14, 1 st paragraph	Amanda Owings, PBOT	What is the amount of added surface space? How can this be utilized? Developed? If public space, will the trip generation to the space require parking?
154.	EA Main Document	28, 6.2.1	Amanda Owings, PBOT	We see that 2.54 acres of land will be converted from active land use to transportation use (streets, bike/ped/transit facilities). Please provide the amount of land that will be created by the highway covers. We cannot see where this is accounted for and what impact it has on the surrounding land uses. (Unless it is in another technical report...?) Has the City's Comprehensive Plan or the travel demand models accounted for use of the highway covers?
155.	ROW Technical Report	Global	Amanda Owings, PBOT	In the ROW Technical Report, the amount of land acquired for fee simple is 3.5-4.0 acres. Is there a conflict? Can this be explained further in one of the reports?
156.	EA Main Document	67, 3.14.1.1	Kathryn Levine, PBOT	Existing Conditions and Federal Commitments Clearly state that FTA Small Start funds were utilized to construct the existing Streetcar facilities in the project area and we are obligated to continue providing service.
157.	EA Main Document	67, 3.14.1.1	Kathryn Levine, PBOT	Please capitalize “Streetcar” service
158.	EA Main Document	68, 3.14.2.1	Kathryn Levine, PBOT	Build Alternative, 1 st paragraph, add the word “temporary” as in “detours, and temporary changes to Streetcar operations”.
159.	EA Main Document	68, 3.14.2.1	Kathryn Levine, PBOT	Add a sentence at the end of the Build Alternative, 1 st paragraph: With the lengthy duration of project construction and necessary phasing, maintaining Streetcar service may require a combination of tracks on the temporary structure as well as bus bridges.
160.	EA Main Document	68	Kathryn Levine, PBOT	The following bus lines could experience temporary short-term impacts: Line 17 WB and Portland Streetcar “B” Loop (on N/NE Broadway), should also include “A” Loop operating on WeidlerLines 4 and 44 NB (on Williams), 85, 8, 35, and 77. There is a risk that the MAX Red, Blue and Green lines, which operate on NE Holladay through the Rose Quarter Transit Center, could have temporary service disruptions due to construction activities.
161.	EA Main Document	69, 3.14.2.1	Kathryn Levine, PBOT	Mitigation. Delete and replace the last sentence. “Transit demand and agency collaboration will determine accommodations needed for improving Streetcar service. These may include construction of a Lloyd District turnback beyond the area of project impact, possibly at NE Grand and Weidler. Such mitigations may include protective fencing and property acquisition. While this turnback may be constructed to support continued public transit service during the lengthy construction period, it could provide a longer-term benefit and improvement of transit function.”
162.	EA Main Document	88, 3.17.2.13	Kathryn Levine, PBOT	Transit – Add to first sentence: “Long construction periods (coupled with circuitous bus detour routes) could temporarily suppress transit ridership due to passenger inconvenience; however, maintaining Streetcar transit service through the area during construction could ameliorate that loss and support continued transit use. ”
163.	EA Main Document	93, 4.2.2.6	Kathryn Levine, PBOT	Add “Portland Streetcar also provided the project team with a conceptual outline of how project construction and continued Streetcar service during construction could be phased together. Along with the phasing concept, Streetcar provided a comparison of estimated costs for temporary track versus daily bus shuttle detours.”
164.	EA Main Document	57, 3.11.2.2	Kathryn Levine, PBOT	Please add consideration of additional right-of-way needs for small acquisitions associated with possible construction of a Streetcar turnback in the Lloyd District, east of the immediate project area.
165.	Section 4(f) Technical Report	p. 42, Section 6.2.2.2	Nick Falbo, PBOT	The proposed auxiliary ramp-to-ramp lane on I-5 Southbound, connecting to Morrison Bridge and 99E appears to expand the elevated freeway structure over the Eastbank Esplanade. This may potentially block light and altering the environment and experience of the facility. What are the impacts to this park are recreational community resource? Does the alteration to the experience interfere with the activities or purpose of this resource?
166.	Active Transportation Technical Report	p. 17, Section 2.2.4.3; Figure 8	Nick Falbo, PBOT	The image in figure 8 and description in Appendix A shows and describes the Clackamas Bicycle and Pedestrian Crossing as connecting NE Clackamas on the east side of I-5 to N Williams on the west-side of I-5. The Broadway/Weidler Facility Plan describes this bridge as connecting NE Clackamas on the east side of I-5 to NE Ramsay Way/Winning Way on the west side of I-5. These are different alignments and serve different purposes. Does the bridge as visualized and described in the Environmental Assessment meet the purpose of the element in the recommended facility plan?
167.	EA Main Document	4, 1.4 and global comment for EA and tech reports	Nicholas Starin, BPS	Third Bullet: The N/NE Quad Plan was repealed with the adoption of the Central City 2035 Plan, which incorporated its goals and policies. It is best to reference adopted CC2035 Plan, and where appropriate, refer to the N/NE Quadrant plan process .
168.	EA Main Document	13, Fig 2-6	Nicholas Starin, BPS	What happened to the MUP from terminus of Flint at Tillamook to Vancouver, paralleling freeway which was included in the facility plan? Needs to be part of EA considerations and project going forward.
169.	EA Main Document	Global	Christine Kendrick, BPS	Thank you for conducting the technical air quality analysis according to FHWA guidelines and doing an additional highway-only MSAT emission analysis in response to heightened public concern near Harriet Tubman Middle School. Since the findings point to the short-term construction impacts as the primary air quality impact of this project, we would like to point out the City's support for HB 2007 currently being discussed by the state legislature. If this bill is approved and includes diesel engine requirements for public improvement projects, we would encourage ODOT to include such requirements in the construction mitigation options on an expedited schedule as much as is possible so those benefits of cleaner diesel engines in construction motor vehicles and other diesel equipment can be delivered to the API.

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170.	EA Main Document	31, 5.2.2	Christine Kendrick, BPS	Include an explanation for why MSAT emissions from vehicles are expected to be lowered in 2045 versus 2017. As written, it appears explanation of tailpipe standards only applies to criteria pollutants. Suggested change- add a new second sentence "These reductions in MSAT estimated emissions are attributed to the implementation of tighter tailpipe emissions standards over time (Air Quality Technical Report Appendix B)". (That reference to Appendix B is on page 31, section 5.2.2, paragraph 2 in the Air Quality Technical report)
171.	EA Main Document	27, 2	Christine Kendrick, BPS	Add Table 7 MSAT Emissions for Build Alternative (tons per year) from the Air Quality Technical Report to support the findings summarized or include a reference to the Table so some readers know where to look for the quantitative results.
172.	EA Main Document	27, 2	Christine Kendrick, BPS	Suggested change, "When the MSAT modeling does show a slight reduction in MSAT emissions of approximately 0.1 tons compared to the No-Build Alternative in 2045, this is likely due to higher speeds and reduced congestion that the Build Alternative would allow." This change introduces more quantitative results, describing the value of the slight decrease, and adds more clarity since the previous sentence says the differences are equal to or lower.
173.	EA Main Document	27, 2	Christine Kendrick, BPS	Table 7 in the Air Quality Technical Report shows the predicted MSAT values for the Build and No-Build Alternative are the same for surface streets. This sentence should be changed to read "MSAT emission estimates for surface street operations for the Build Alternative in 2045 remain the same as estimates for the No Build Alternative."
174.	EA Main Document	27, 4	Christine Kendrick, BPS	Add Table 8 from Air Quality Technical Report or include a reference to it.
175.	EA Main Document	30	Mindy Brooks, BPS	The permanent and temporary structures proposed for the Willamette River will have detrimental impacts to aquatic resources by displacing habitat for sensitive species. This site is one of few remaining shallow water habitats in the Willamette River in Portland. It is critical to retain shallow water habitat to the maximum extent possible. City zoning code 33.475 will require a minimum of 1.5:1 mitigation area to impact area for the negative impacts to aquatic resources. That mitigation ratio may be increased through River Review, see comments under Land Use. Mitigation must occur with the Willamette River Central Reach in Portland. It is recommended that mitigation occur at Eastbank Crescent, located on the east side of the Willamette River, immediately south of the Hawthorne Bridge. This site, plus the OMSI riverbank to the south of Eastbank Crescent, have a city-adopted plan for longer restoration and enhancement coupled with public access via the Greenway Trail.
176.	EA Main Document	30	Mindy Brooks, BPS	The map needs to include the River General (g*) and River Environmental (e) overlay zones.
177.	EA Main Document	48	Mindy Brooks, BPS	The Land Use section needs to include City of Portland zoning code 33.475, River Overlay Zones, and 33.865, River Review. Its not clear that consultants were looking at the zoning regulations and maps that changed through CC2035, 33.440 is not the applicable overlay
178.	EA Main Document	51	Mindy Brooks, BPS	33.475 require River Review for most impacts to the natural resources. Minimum mitigation is 1.5:1 ratio of mitigation area to impact area (33.475.440.L) for both in-water and riparian impacts. The ratio may be increased during River Review depending on the functions impacted, such as critical habitat for ESA-listed species, distance between impact area and mitigation area, lag time between impacts and mitigation fully functioning (33.865.100.A.2.d.3). Trees removed within the river environmental overlay zone must be replaced. In addition, an development within the river general overlay zone trigger landscaping requirements (33.475.220) for the Willamette River bank and land within 50 feet of top of bank. Mitigation must occur within the same reach of the Willamette River as the impacts. Therefore, mitigation must occur within the Central Reach, which is the Fremont Bridge in the north to the Ross Island Bridge in the south. It is recommended that mitigation occur at the Eastbank Crescent, located on the east side of the Willamette River, immediately south of the Hawthorne Bridge. This site, plus the OMSI riverbank to the south of Eastbank Crescent, have a city-adopted plan for longer restoration and enhancement coupled with public access via the Greenway Trail.
179.	Land Use Technical Report		Nicholas Starin, BPS	Note: Related to Brooks comments on Title 33.475 and 33.865: Land Use Technical Report, sec 6.4.2.4, page 37-38 needs to be corrected: Title 33 provisions for environmental overlay zones, greenway and work in waterbodies ARE applicable in ROW. See 33.10.030
180.	EA Main Document	81	Mindy Brooks, BPS	There is both 100-year floodplain and 1996 flood inundation area that will be impacted by the project.
181.	EA Main Document	82	Mindy Brooks, BPS Brooks	There will be impacts to the flood area that will need be mitigated. Please refer to City Title 24 for balanced cut and fill requirements, plus a test of no net rise. Mitigation for impacts to the flood area can be coupled with mitigation required under 33.475.
182.	EA Main Document	107	Nicholas Starin, BPS	Add reference in this bibliography and bibliographies of tech reports to the adopted Central City 2035 Plan (it is often cited in the documents, but only N/NE Quad plan is listed in references or there is a reference to draft versions of CC2035)
183.	EA Main Document		Mindy Brooks, BPS	City Title 11 requires replacement of trees that are removed. Tree replacement should occur within the North/North East Subdistrict of the Central City to mitigate heat island impacts and to support the vulnerable communities that live near the I5 corridor. In addition, the Willamette River is a flyway for migratory birds and trees within near proximity of the river provide habitat as birds move through Portland.
184.	Active Transportation Technical Report and other reports	23	Mark Raggett, BPS	Global: All reports/docs should reference Central City 2035 Plan, with specific descriptions of Lloyd, Lower Albina and Central City-wide goals and policies
185.	Active Transportation Technical Report	63, Fig 22	Raggett, BPS	Build Alternative diagram shows EB bicyclists going out of direction to access Clackamas Bridge. Bridge would likely link to a 2-way facility via Ramsay Way
186.	Traffic Analysis Tech Report	74, 80, 3.14.2.4 6.2.3	Karl Lisle, OMF	The movement of the I-5 SB ramp from Ramsay (Winning) Way to Weidler creates significant changes to the way vehicles exit the Rose Quarter Garages. Currently, in the post-event condition, many vehicles exit the area (especially the Garden Garage in the Moda Center) by turning east on N Ramsay (Winning) Way and using the I-5 SB on-ramp at the end of that street. The City is concerned that with the relocation of that on-ramp, post-game event egress will be more a more difficult and time-consuming process, which could significantly increase the vehicle wait times to exit the district and potentially have the negative affect of discouraging parking in the public parking facilities at the Rose Quarter, or worse, reduce attendance at events. The configuration of N Wheeler as one-way SB appears to be the biggest problem. The City and Rose Quarter operators, Rip City Management, strongly prefer a two-way operation on NE Wheeler. Without this all traffic attempting to exit the parking structures would have to circulate west on Ramsay (Winning) Way to Benton or Larrabee in order to access Broadway

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				and Weidler. This scenario would greatly increase congestion in the western part of the Rose Quarter and significantly increase waiting times for vehicles attempting to leave the garages in a post-event situation. Relying exclusively on cones and flaggers to switch the direction of traffic flow on N Wheeler will increase costs to the operators, as well as create risks to motorists as the scale of the circulation changes will be more extensive and confusing than the types of circulation changes currently in use. Both the issue of maintaining event garage access during construction and post-game egress are identified in the EA. The post-event circulation routes and mitigation strategies are identified as well as a need for further detail through a Transportation Management and Operation Strategy.
187.	EA Main Document	General	Melissa Brown, BES	The environmental assessment fails to capture the numerous environmental city codes that are triggered by this project including Title 11, Trees, and Title 33, environmental. Title 33 was recently amended to incorporate the Central City (CC) Code which includes mitigation ratios and locational restrictions that are more restrictive than state or federal standards. These codes, and the corresponding mitigation needed to meet these codes, was not included in the environmental assessment and may conflict or be additive to the mitigation that was proposed to meet federal requirements. We recommend that the project team work to include and reconcile all mitigation requirements to the greatest extent possible. The city team is available to discuss opportunities that will meet all federal, state and local mitigation requirements within the Central Reach.
188.	EA Main Document	28	Melissa Brown, BES	NMFS-designated critical habitat for five ESA-listed salmon and trout populations is mapped in the API. The five populations are: Upper Willamette River (UWR) chinook salmon, UWR steelhead trout, Lower Columbia River (LCR) chinook salmon, LCR steelhead trout, and LCR coho salmon. Per genetic analysis completed of fish monitored in local watersheds, we know that this critical habitat is also used by several out-of-basin chinook populations, including individuals from Mid-Oregon Coast, Middle-Upper Columbia River, and Southern British Columbia mainland stocks – and likely others. It is important to recognize that it's not just three species of listed fish that use the Willamette River in the API, but that multiple populations of these species, some local, some from out of state, each with their own unique habitat needs, use it.
189.	EA Main Document	28	Melissa Brown, BES	The sidebar statement that “Temporary effects to ESA fish would be minimized by conducting work during times when fish are not present in work areas” is a mis-representation of how ESA-listed fish use habitat in the API. There are ESA-listed fish present in the API every day of every year, either as migratory juveniles or adults, or as rearing juveniles. It is a clear misstatement to imply that there will be no ESA fish present during construction, even during the in-water work window. The same can be said of marine mammals.
190.	EA Main Document	29	Melissa Brown, BES	The concrete pour molds built around each drilled shaft location will displace more than 311 sf of shallow water temporarily. Additional piles required to construct temporary work bridges will displace shallow water habitat, as well. Sheet piling will also displace shallow water habitat. Depending on what the construction calendar looks like for the construction of the “temporary” structures, the length of presence of said structures may not qualify as temporary. The Army Corps of Engineers and Department of State Lands categorize in-water construction activity that impacts habitat for 24 months+ as permanent when calculating cumulative impact mitigation.
191.	EA Main Document	29	Melissa Brown, BES	Marine mammals and salmon use the API year-round. Employing a marine mammal observer to implement shutdowns in specific months only is short-sighted, and not employing a salmon observer to act accordingly might be an oversight.
192.	EA Main Document	30	Melissa Brown, BES	Deployment of a barge year-round will trigger permanent impacts if used in the API for more than 24 months.
193.	EA Main Document	30	Melissa Brown, BES	Categorizing turbidity impacts from sheet pile installation, drilled shaft construction as ‘minor’ is ambiguous. There will be impacts to water quality that will need to be minimized and mitigated.
194.	EA Main Document	30	Melissa Brown, BES	If the stormwater impacts are not fully mitigated within the project footprint, we strongly suggest that the project also use green stormwater infrastructure under the Marquam Bridge at the eastside end of the Hawthorne Bridge on ODOT property to treat other I-5 runoff as mitigation. This runoff is directed to an outfall at the base of the Hawthorne bridge that is currently a popular swimming area and is the focus of a city and OMSI investment in increasing habitat restoration and recreation in the area, including enhanced swimming at the location of the outfall. The treatment of this runoff will significantly enhance the city's efforts and public safety. https://www.portlandoregon.gov/bps/article/634577
195.	EA Main Document	31	Melissa Brown, BES	Impacts to Central City resources should be mitigated onsite within the Central City boundary. To offset installation of new bridge piers, ODOT's removal of equivalent fill volumes from Multnomah Channel is not acceptable. There are literally hundreds of derelict pilings within the CC reach that can be removed as mitigation.
196.	EA Main Document	p.79, Table 3-11	Binhong Wu, BES	Could not locate some of the sewer segments that may be impacted by the project based on the general description location and size (maybe off as well) listed in the table.
197.	EA Main Document	p. 79, Table 3-11	Binhong Wu, BES	Sullivan pump station is considered to be one of the highest critical pump stations in the City and any impact to this pump station should be avoided or minimized if possible. If needed, operations of Sullivan PS can be modified to divert all flow to the ES-CSO Tunnel System. However, this must be very carefully planned as Sullivan PS is an integral part of the CSO Management System. In general, diversion during winter months is strongly discouraged.
198.	EA Main Document	p.80, Line 12	Binhong Wu, BES	Change the 264-inch sewer to East Side CSO tunnel. Although east side CSO tunnel is located deep down (with invert about -80 ft), any potential impact to the tunnel should be avoided.
199.	EA Main Document	3.15.2.3	Binhong Wu, BES	Combined sewer lines that are 36-inch or larger are considered the backbones of the collection system. Any impact to these sewer pipes should be avoided or minimized as much as possible due to operation, complex by-pass flow considerations. The mitigation measures associated with these sewer pipes can be costly and may require significant planning and design effort.
200.	EA Main Document	82, 7 th paragraph	Binhong Wu, BES	It is unclear why the stormwater facilities would result in a net removal of material in the floodplain. In case of floodplain encroachment, a no-rise analysis is recommended.
201.	EA Main Document	80-81, 3.16.1 – 1st paragraph	Barbara Adkins, BES	Recommend replacing the first paragraph with: The Willamette River is listed as an impaired waterbody under Section 303(d) of the Clean Water Act and requires that Oregon DEQ establish TMDLs for impaired waterbodies. TMDLs establish the total pollutant loading a waterbody can receive and still meet water quality standards. The TMDL is implemented in part through the National Pollutant Discharge Elimination System (NPDES) stormwater permitting system. Both ODOT and the City have NPDES permits for their respective storm sewer systems (MS4). Discharges to a storm sewer must comply with the respective ODOT or City NPDES MS4 permit to comply with the TMDL. For the portion of stormwater that discharges directly to the Willamette (a water of the US), ODOT and the City developed TMDL

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				Implementation Plans that outline their strategies to address TMDLS which include road construction, maintenance and repair for during and post construction.
202.	EA Main Document	81, 3.16.1 – 2nd paragraph	Barbara Adkins, BES	This paragraph identifies 4 ODOT outfalls and mentions the City's separated storm sewer system but not the number of City outfalls. Recommend one of two edits for the 3rd sentence in the paragraph, 1) add the number of City stormwater-only OFs within the API (to be consistent with the ODOT information provided) OR 2) if the City's stormwater is only conveyed to the combined system within the API then edit the 3rd sentences to read: Stormwater runoff from the City ROW drains the combined stormwater-sanitary system within the API and keep the 4th (last) sentence as-is.
203.	EA Main Document	81-82, 3.16.2.1 4th Paragraph, 1st sentence	Barbara Adkins, BES	The section state construction of ODOT ROW increases the impervious area by 6 acres for a total of 30 acres and included 3 new water quality facilities to manage stormwater runoff. It goes on to state it will treat approximately 96% of contributing impervious areas within the API. Does that mean 96% of the 30 total acres of impervious area or just the new impervious area? If 96% of the total 30 acres, then recommend editing the 1st sentence as follows: This treatment approach would improve water quality to the required degree from the ODOTROW prior to discharge to the Willamette River and would treat approximately 96 percent of the total 30 acres contributing impervious area from ODOT ROW within the API.
204.	EA Main Document	82, 3.16.2.1 5th paragraph	Barbara Adkins, BES	Paragraph 5 states WQ treatment from City ROW will be accomplished with additional stormwater planters. Same question as above, does that address just the 2 additional acres of impervious area or treat all the contributing area of 11 acres? If it treats the 11 acres, then recommend editing the sentence/paragraph as follows: Water quality treatment for stormwater runoff from City ROW would be accomplished with additional stormwater planters located between the curb and sidewalk along N Center Court Street and N Williams and will treat the total 11 total acres within the API. OR If it only treats the 2 additional acres then edit as follows: Water quality treatment for stormwater runoff from City ROW would be accomplished with additional stormwater planters located between the curb and sidewalk along N Center Court Street and N Williams and will treat the 2 additional acres within the API.
205.	EA, Climate Change Technical Report	35, and 3.5.2.2	Kyle Diesner, BPS	While overall estimated greenhouse gas emissions for the build scenario show a decrease, there is an increase in lifecycle emissions from materials that could be mitigated through procurement practices. Due to the increased lifecycle emissions from materials for construction and maintenance associated with the build option (175 MT CO2e/year), the City of Portland encourages ODOT to commit to using low carbon concrete on the project to reduce these increased emissions. There are cost effective materials and methods for lowering the impact of concrete while maintaining structural integrity. Local concrete producers are knowledgeable of these methods and can achieve up to 40 percent carbon reductions on certain mix designs. Oregon Department of Environmental Quality is working with local concrete producers through a voluntary program to help them produce environmental product declarations (EPDs) for each of their concrete mixes: https://www.ocapa.net/oregon-concrete-epds
206.	EA Main Document	Global	Brett Horner, PP&R	The EA completely avoids any analysis of tree removals and potential impacts to habitat and any native plants. This is inadequate. Please provide a full narrative description of expected impacts, including a count of existing trees in the project area and the number planned for removal. Include tree species, size, and general condition
207.	EA Main Document	Global	Brett Horner, PP&R	PP&R is concerned with the expansion of freeway lanes south of the Oregon Convention Center, and how this may impact the Eastbank Esplanade. Specifically, the concern is with what appears to be the addition of a southbound lane and shoulder between where the Freeway crosses NE Lloyd Blvd on the north, and to the south, where the southbound I-5 to eastbound I-84 flyover crosses the Eastbank Esplanade Trail. There is very little information (in fact none in the EA) on the impacts of noise, shade, and stormwater and other objects falling from the flyover onto the Eastbank Esplanade Trail. The EA needs to address these issues. If the impacts are significant, or not properly mitigated, PP&R will not support a de minimis finding for the Eastbank Esplanade impacts the project is causing. The EA shall not assume a de minimis finding at this early stage of the project.
208.	EA Main Document	Global	Brett Horner, PP&R	The Freeway lids need to be designed by an urban design team with landscape architecture expertise
209.	EA Main Document	Global	Brett Horner, PP&R	PP&R is disappointed and concerned with the lack of discussion and thought given to the lids and what can be on them. Which agency does ODOT intend to deliver these lids to, or will ODOT keep ownership and maintenance of them? What will ODOT do with the lids if no entity, even after the urban design work is completed in 2019, accepts ownership, management, maintenance, or liability of the lids? Will ODOT remove them from the project? Will ODOT maintain them if ODOT builds them? What kind of easements will ODOT need from the uses on top if the lids are built? Will ODOT sell the lids or charge for use of them?
210.	EA	Global	Brett Horner, PP&R	As currently configured and designed, PP&R does not have much interest in managing, building on, or maintaining these lids. They are fractured remnant small pieces and not in shapes or sizes conducive to open space development. They were designed with virtually no PP&R input. The Portland Parks Board has recommended that PP&R not accept the lids as currently presented.
211.	EA Main Document	Global	Brett Horner, PP&R	The EA lacks adequate information on the full impacts of the closure of the Eastbank Esplanade and Willamette Greenway Trail. Please provide full information on locations, detours, closure periods, etc.
212.	EA Main Document	Global	Brett Horner, PP&R	The EA states that the project will get de minimis findings for trail closures or detours, permanent maintenance access and easements, noise to Lillis Albina Park, and temporary and permanent Right-of-Way on PP&R managed properties. THIS STATEMENT NEEDS TO BE REMOVED OR MODIFIED. While ODOT can claim it thinks these are de minimis findings, it will be up to PP&R to approve any de minimis findings. The statements on page 61 are inconsistent with the more accurate narrative on page 49 of the "Section 4(f) Technical Report."
213.	EA Main Document	P. 12, 3 rd line down	Brett Horner, PP&R	What is ODOT's intention for what gets put on top of the Freeway lids? Open Space? Commercial buildings? See also comment 21 below
214.	EA Main Document	p. 13, Figure 2-6	Brett Horner, PP&R	Why are the areas to the north of NE Tillamook St and south of Moda Center NOT shown on this Figure? Both areas are in the defined project area. Please expand Figure 2-6 and show these areas and the planned improvements on them.

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215.	EA Main Document	p. 15, Figure 2-8	Brett Horner, PP&R	This image does NOT match the lid designs. It shows a tunnel, not two lids. Why is the area north of Broadway not shown? Please show the full and accurate lid designs.
216.	EA Main Document	p.36, 3.6.1	Brett Horner, PP&R	What percent of the population in the API is African American? Please specify.
217.	EA Main Document	p.47, Figure 3-1	Brett Horner, PP&R	Peace Park is not shown as a "Park" or "Public/Semi-Public" Space. Please add.
218.	EA Main Document	p.55	Brett Horner, PP&R	Thank you! We want ODOT to fund and build all sound walls. Wall 2b should be built sufficient to bring the noise level to 65 dBA at Lillis Albina Park
219.	EA Main Document	p. 60, Last sentence on page	Brett Horner, PP&R	The EA needs to include a map and narrative description of this detour
220.	EA Main Document	p. 61, Line 16	Brett Horner, PP&R	ODOT cannot state this. It can claim it thinks this will be a de minimis finding, but it can't claim it at this point, as they don't have PP&R approval
221.	EA Main Document	p.61, 3 rd line from bottom	Brett Horner, PP&R	ODOT cannot state this. It can claim it thinks this will be a de minimis finding, but it can't claim it at this point, as they don't have PP&R approval
222.	EA Main Document	p.62, Line 21	Brett Horner, PP&R	We will request that ODOT reduce the dBA in the park to 65dBA.
223.	EA Main Document	p.62, Line 16 or 17	Brett Horner, PP&R	Add confirming statement that the project does not require any ROW acquisition of the Park
224.	EA Main Document	p.69, 3.14.2.2	Brett Horner, PP&R	In the Build Active Transportation section, include narrative and/or map of how the Green Loop will be built in the project area (the route).
225.	EA Main Document	p.97, Table 5-1	Brett Horner, PP&R	Add that the project needs approval of a 4(f) de minimis finding from PP&R. Also include that a Non-Park Use Permit (NPUP) will be required by PP&R to perform work on our managed properties, including the Eastbank Esplanade and Willamette Greenway
226.	Executive Summary	p. 9, Line 12	Brett Horner, PP&R	Remove "(declined)" and add "participated as part of the City of Portland's involvement"
227.	4(f) Technical Report	Appendix A – List of Reasonably Foreseeable...	Brett Horner, PP&R	The memo from AECOM makes no mention of the lids and the future action for their development. This seems a gross oversight. The EA itself (on page 12, lines 3-6) states "The added surface space (from the lids) would provide an opportunity for new and modern...public spaces when construction is complete." The memo is insufficient and inadequate in this regard. Please add ODOT's foreseeable future actions for the lids!
228.	4(f) Technical Report	Appendix C	Brett Horner, PP&R	This Appendix is blank and needs to be finalized before the EA is considered adequate.
229.	EA Main Document	27, line 24	Brett Horner, PP&R	PP&R requests confirmation that the EA verify that air quality is not hazardous to health on the Lillis Albina Park site. This park is not only used by the public, but extensively used by PPS and Tubman Middle School for Physical Education (PE), and we need to be certain there are not health concerns with intensive PE use on the park site given its proximity to the I-5 and project area. Please provide more detailed data on the school and park site with regard to air quality, not just ambient air quality in the general vicinity of the project.
230.	Utilities Technical Memo, pg 43, Section 5.1.13	1 st paragraph, 3 rd Sentence	Cherri Warnke, PWB	Replace "Cherri Warnke [PWB]" with "PWB Interagency Liaison".
231.	Utilities Technical Memo, pg 70, Section 7.2.6.2	4 th paragraph, last sentence	Cherri Warnke, PWB	Replace "Cherri Warnke [PWB]" with "PWB Interagency Liaison".
232.	Water Resources Technical Report	19, Section 3.2	Ethan Brown, BDS	This report does not address, but should, whether ODOT is planning to meet the existing SLOPES for Stormwater, Transportation or Utilities to be in compliance with ESA. If not, is a separate Section 7 consultation being proposed?
233.	Water Resources Technical Report	25, Section 5.2	Ethan Brown, BDS	This section should acknowledge and discuss the importance of the Willamette River as Critical Habitat for ESA-listed species.
234.	Water Resources Technical Report	27, Section 5.8	Ethan Brown, BDS	This section should describe or show where this sewer is located (generally or shown on a map) within the project area.
235.	Water Resources Technical Report	26, Section 5.4	Kim Tallant, BDS	ESA would also apply for any development in the floodplain.
236.	Water Resources Technical Report	31, Section 6.2.1.3	Ethan Brown, BDS	This proposed appears to be entirely or partially within the Greenway overlay zone; this may trigger additional review requirements to comply with Title 33.
237.	Water Resources Technical Report	33, Section 6.2.3	Ethan Brown, BDS	This section should acknowledge the net increase in impervious surfaces.
238.	Water Resources	32-33, Sections 3.2.2 & 6.2.3	Morgan Steele, BDS	These sections should be expanded to address floodplain and waterbody impacts from the overall development, not just stormwater management.

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239.	Socioeconomics	38, Section 6.2.1	Staci Monroe, BDS	Zoning Code Chapters 33.296 (Temporary Activities) and 33.262 (Off-Site Impacts) are both applicable to the construction associated with the Build Alternative. During construction off-site impacts, such as noise and vibration, onto neighboring Residential, Commercial and Open Space zoned properties will need to ensure they meet the limitations within Chapter 33.262. Acknowledgement that city codes and potential permits (Zoning, Site Development, or Development Review) may be required for construction staging and activities on the private property should be included.
240.	Historic Resources	Thru-out	Staci Monroe, BDS	N Page & NE 1 st Avenue are not Historic Districts (local or federal) although they are referred to as such throughout the report. Please clarify what is meant by that classification and add to report or remove it.
241.	Historic Resources	21	Staci Monroe, BDS	References to Portland City Code should be updated to read Chapters <u>33.445</u> and <u>33.846</u> . Unclear without the title reference.
242.	Land Use	14	Staci Monroe, BDS	<i>Same comment from draft. ODOT response indicated comment will be addressed separately from the Land Use Technical Memo.</i> Unclear what is meant by added surface space would provide new “public spaces”. Does with mean public parks & plazas or just transportation facilities in the ROW?
243.	Land Use	8	Staci Monroe, BDS	<i>Same comment from draft. ODOT response indicated comment will be addressed separately from the Land Use Technical Memo.</i> Should reference the document/ordinance that Council adopted the I-5 Broadway/Weidler Plan
244.	Land Use	16-17	Staci Monroe, BDS	<i>Same comment from draft. ODOT response indicated comment will be addressed separately from the Land Use Technical Memo.</i> Only a couple of references provided that identify impacts on private property (e.g. limited vehicular & loading access). Is this a comprehensive list of sites impacted? What about other types of impacts like grade changes, reductions in site area, removal of parking, access limitations, etc.? Once the impacts/necessary alterations to private property are identified, Title 33 regulations may be applicable. This should be made clear throughout this document and particularly in section 6.4.2.4 and 7.
245.	Land Use	28 Section 6.2.1	Staci Monroe, BDS	Regarding the conclusion below, who has made this determination? Non-conforming development is not just related to a building. If a conclusive statement is needed, then a review of the properties impacted/alterd will need to be specifically assessed under the current zoning code. Alternatively, a more general statement could be included that an assessment is still needed. “Acquisitions would not cause any instances of non-conforming development. Non-conforming development can occur, for example, when a property acquisition reduces to below the required minimum the setback of a building from the property line of the parcel it occupies. All permanent acquisitions either result in the removal of the buildings that occupy the affected land parcel or are of land not occupied by a building. The scale of subsequent development of parcel remnants would be reduced, but the types of allowed uses would not change.”
246.	All		Kevin Wells, BDS	BDS Site Development has no comments regarding the February 15, 2019 I-5 Rose Quarter Improvement Project Environmental Assessment.
247.	EA Main Document	9	Amy Nagy, Prosper Portland	ODOT will partner with the City of Portland and stakeholders to program highway covers that benefit the surrounding community which include transportation improvements and the potential for structures that include a public benefit. Programming will also be responsive to surrounding uses outside of the API.
248.	EA Main Document	28	Amy Nagy, Prosper Portland	“Land acquired for the Project would remain in ODOT ownership or become City of Portland street ROW.”
249.	EA Main Document	28	Amy Nagy, Prosper Portland	“A number of parcels that would be subject to acquisition would not be converted to transportation use.” Include map identifying properties planned for acquisition but not transportation conversion. Current reference <i>Right of Way Technical Report</i> cannot be found within EA.
250.	EA Main Document	28	Amy Nagy, Prosper Portland	ODOT in partnership with City of Portland will draft a community plan for disposition of properties acquired for staging and not converted to transportation use. One that is consistent with the City of Portland’s Central City 2035 Plan
251.	EA Main Document	28	Amy Nagy, Prosper Portland	ODOT will work with the City of Portland on a plan to mitigate impacts on adjacent businesses during construction including issues of access and environmental impacts.
252.	EA Main Document	28	Amy Nagy, Prosper Portland	ODOT will draft a mitigation plan for the deconstruction or demolition of buildings acquired for the project, including those being converted for transportation use or acquired with plans to be sold post-construction. The plan will address air and material pollution.