APPENDIX B: FEASIBLE BUILD ALTERNATIVES FLY-THROUGH DESCRIPTIONS
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FIGURES

FIGURE 1: Composite Highway Alignments (1 of 2)  
FIGURE 2: Composite Highway Alignments (2 of 2)  

1 FEASIBLE BUILD ALTERNATIVES

Below, Figure 1 and Figure 2 show a composite highway alignment map of each of the feasible build alternatives. These maps illustrate the start and end locations of each alternative and connections made to I-81, I-690, and the local street network.

**FIGURE 1:** Composite Highway Alignments (1 of 2)

**FIGURE 2:** Composite Highway Alignments (2 of 2)
2 RED TUNNEL ALTERNATIVE

The Red Tunnel Alternative starts in the south, south of Martin Luther King East and trends to the northwest. Starting as a cut and cover tunnel it would transition to twin bored tunnel near South McBride Street. The tunnels would pass under the railroad, and stay west of the Syracuse University Steam Station & Chilled Water Plant.

The tunnels pass under the west side of the Pioneer Homes housing project before aligning below South Townsend Street. The street itself meanders east and west, so the tunnels would pass below private parking lots in some areas.

The tunnels would then strike northwest to align with State Street, passing below various private properties in the vicinity of Washington Street and Water Street. The tunnels would pass under I-690 with no interconnections, at sufficient depth to avoid the existing piles.

The tunnels would then follow North State Street before deviating to the west to rejoin the existing I-81 alignment north of Butternut St.
An intersection between the existing I-81 and the I-81 tunnel would be constructed near Spencer Street.
The Orange Tunnel Alternative starts as a cut and cover tunnel in the south, south of Martin Luther King East, and continues due north. The cut and cover structure would transition to twin bored tunnels south of the railroad near Burt Street.

The bored tunnels would pass under the railroad and continue under the Syracuse University Steam Station & Chilled Water Plant. It is anticipated that the tunnels will be deep enough to avoid the piles from a previously demolished structure. However, a cut and cover tunnel would avoid this risk (Appendix E) but could be disruptive to operations, and may require multiple utilities to be rerouted or supported.

The bored tunnels would continue under Taylor Street, and would pass under the Pioneer Homes housing project. They would then continue parallel to I-81. They would pass under the parking lot of the Upstate University Medical Center, and under the parking structure for Madison Towers. An alternative alignment would be under the I-81 viaduct, which would avoid private properties, but the risk of encountering a pile (from the I-81 viaduct) could increase.

At E Genesee Street the tunnel would head to the northwest, passing under private land and various low-rise buildings. The bored tunnel would end at Erie Boulevard, transitioning to a cut and cover tunnel. The at-grade parking lots in this area could potentially be acquired to make an efficient reception/launch site for the bored tunnels.
North of Erie Blvd cut and cover construction would be used, with the I-690 viaducts being underpinned and the I-690 viaduct reconstructed on top of the tunnel box. To achieve connections from I-81 northbound to I-81 northbound and to I-690 westbound extensive reconstruction of I-690 would be required. This would include reconstruction of much of the existing viaduct, enabling existing geometric deficiencies to be remedied.
4 GREEN TUNNEL ALTERNATIVE

The Green Tunnel Alternative starts in the south, south of Martin Luther King East, and bends to the east to clear the existing I-81 alignment immediately south of the railroad. The southern end of the bored tunnel would be close to this location. To achieve this geometry, reverse curves are required on both the through-tunnel and ramp leading to the community grid (see Appendix A).

A single bi-level tunnel is recommended due to the restricted width of available space between the piles of the I-81 viaduct (to the west) and the hotel and hospital buildings (to the east). The bored tunnel would pass under the Pioneer Homes housing project and immediately adjacent to the Upstate Medical University Hospital, beneath the I-81 northbound off-ramp to Adams Street.

The alignment would continue northbound under Almond Street, passing close to the high-rise Crowne Plaza Hotel. The profile and alignment would be detailed to miss piled foundations.

At E Fayette Street the bored tunnel would end. The at-grade parking lots in this area could potentially be acquired to make an efficient reception/launch site for the bored tunnel (Appendix E).

A cut and cover tunnel would turn westwards, to connect into the ramps of the existing I-81 viaduct.

Connections from I-81 northbound to both I-690 westbound and I-81 northbound would be maintained (along with the reverse flows). An I-81 northbound to I-690 eastbound ramp is also proposed (but no reverse move due to vertical clearance constraints at Erie Boulevard).
5 BLUE TUNNEL ALTERNATIVE

The Blue Tunnel would comprise twin tube tunnels, with cut and cover sections at the north and south portals, and also at a central section near West Street.

The Blue Tunnel Alternative starts in the south, south of Martin Luther King East and trends to the northwest. A cut and cover tunnel would transition to twin bored tunnels near South McBride Street, where a TBM launch shaft could be located.

The bored tunnels would pass under the railroad, and stay west of the Syracuse University Steam Station & Chilled Water Plant.

The tunnels pass under the southwest corner of the Pioneer Homes housing project, Roesler Park, and some low-rise building on South Warren Street. The tunnels continue under the railroad, Onondaga Creek, and just south of the parking lot for the Museum for Science and Technology.

The tunnels re-cross the railroad as they approach West Street.

The bored tunnel would transition to cut and cover at West Fayette Street. The existing interchanges at Erie Boulevard and I-690 would require significant reconstruction.
A connection with I-690 would be constructed, accommodating I-81 northbound to eastbound and westbound I-690, and also the reverse moves. The cut and cover tunnel in this area would require the demolition of several low-rise structures.

The bored tunnels would re-commence south of I-690, continue north under low-rise buildings, and pass to the southeast of the Inner Harbor.

The conceptual alignment is adjacent to the southeast corner of the currently proposed inner harbor redevelopment.

The tunnels would daylight and rise onto a viaduct and other ramp structures to create a new intersection with the existing I-81 close to Destiny Mall.

The open space in this area would be a favorable TBM launch location.