Appendix D:
Alternatives Screening
What are Major Intersection Options?

**Expanded Signalized Intersection**
- Allows protected pedestrian movements
- Accommodates unbalanced approach volumes
- Relatively small footprint
- Lower construction cost
- Can have high amounts and delay
- Higher potential for severe accidents
- Multiple lanes for pedestrians to cross

**Continuous Flow Intersection**
- Moves the left turn eliminating left turn movements from the main intersection
- Improved capacity
- Reduced delay
- Suitable for high volume left turns
- Allows protected pedestrian movements
- Safer for vehicular travel than signalized intersections
  - Motorists must travel through multiple intersections, and may stop multiple times through the junction
  - Less intuitive than signalized intersection
  - Other choices more pedestrian friendly
  - Larger footprint than signalized intersection

**Florida-T Intersection**
- Suitable for a three-way intersection with moderate-to-low left turn volumes from cross street, and high arterial through volumes
- Allows continuous green through movement in one mainline direction
- Allows protected pedestrian movements
- Safer than signalized intersections
- Improved capacity
- Reduced delay
  - More footprint required than signalized intersection
  - Pedestrian movements need pedestrian signal

**Grade-Separated Intersections**
- Suitable for high volume intersections
- Allows traffic to move freely, with fewer interruptions
- Safer relative to signalized intersections
- Creates less delay than other intersection types
- Represent a barrier for pedestrians
- Higher visual impacts than other intersection types
- Larger footprint than signalized intersection
- Much higher cost than other intersection types

**Roundabout**
- Suitable for relatively balanced approach volumes
- Safer for vehicular travel relative to other intersection types
- Can result in less delay
- Can accommodate aesthetic treatments
  - Larger footprint than signalized intersection
  - Less suitable for high volume/multilane approaches
  - Less intuitive for pedestrians/bicycle lists than other intersection types

Numerous configurations of intersection designs have been analyzed for the major intersections.
**Major Issues**

- Heavy turns between WY 390 and WY 22 east
- River Access
- Proximity to the Snake River Bridge
- Potential Wetlands

**Study Results**

<table>
<thead>
<tr>
<th>Intersection Operations</th>
<th>Pedestrian/Bikes</th>
<th>Transit</th>
<th>Safety/Vehicle Conflicts</th>
<th>Aesthetics</th>
<th>Environmental / ROW Impacts</th>
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<tbody>
<tr>
<td><strong>Additional Lanes</strong></td>
<td>✔</td>
<td>✔</td>
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| Continuous Flow Intersection | ✔ | ☐ | ☐ | ☐ | ☐ | ✔ | ☐ | ☐ | ☐ | ☐ | ☐ |
| The CFI provides relatively worse pedestrian & bicycle operations and worse aesthetics |

| Florida-T Intersection | ✔ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| The Florida-T provides relatively worse pedestrian & bicycle operations and worse aesthetics |

| Reconfigured T Intersection | ✔ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| The reconfigured T would result in faster speeds and lower safety performance |

| 2-lane Roundabout with Slip Ramp | ✔ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| The roundabout offers relatively safer operations, better aesthetics, speed calming, but a larger footprint and providing safe pedestrian movements may require additional improvements |
**Major Issues**

- Heavy right turn traffic in high speed turn lanes
- Heavy left turns conflict with each other and westbound through
- Future bicycle/pedestrian paths: provision of safe crossings is desired
- Limited capacity on Broadway and WY 22
- Need for safe pedestrian and bicycle crossing
- Low Buffalo Way traffic requires own signal phase

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- **Eastbound Double Lefts**
  - Acceptable Traffic Operations? NO

- **Close Buffalo Way**
  - Acceptable Traffic Operations? NO

- **Eastbound and Southbound Triple Lefts**
  - Acceptable Traffic Operations? NO

- **Florida-T Intersection with Signalized Merge**
  - Acceptable Traffic Operations? NO

- **3-lane Roundabout**
  - Acceptable Traffic Operations? NO

- **3-lane Roundabout with Slip Ramps**
  - Acceptable Traffic Operations? NO

- **Florida-T with Signalized Merge and 3-lane Broadway**
  - Acceptable Traffic Operations? YES

- **Continuous Flow Intersection**
  - Acceptable Traffic Operations? NO

- **Westbound Broadway Grade Separated**
  - Acceptable Traffic Operations? YES
**Major Issues**

- **Apply Other Distinguishing Criteria**
  - Yes
  - No
  - Eliminate from Consideration

- **Additional Lanes**
  - Acceptable Traffic Operations?
  - Yes

- **Florida-T Intersection**
  - Acceptable Traffic Operations?
  - Yes

- **2-lane Roundabout**
  - Acceptable Traffic Operations?
  - Yes

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- An expanded signalized intersection has a relatively smaller footprint but lower safety performance.
- The advantages of a Florida T would likely not outweigh its additional impacts.
- Roundabouts offer relatively safer operations, better aesthetics, speed calming, but a larger footprint and providing safe pedestrian movements may require additional improvements.

*Relative Comparison: Better ☑ = Good ☐ = Worse
v/c: Volume to capacity ratio of the worst approach leg*