Phasing Analysis Robb Drive Interchange December 19,2022

## **Robb Drive Interchange – TCA Portion of Capacity**

Phase	Peak Hour Traffic Volume Capacity After Improvements (PM Peak Hour)	Existing Trips at Robb Dr/I-80 EB Ramps (% of Phase Capacity)4	TCA Trips (% of Phase Capacity)	Remaining Phase Capacity (% of Phase Capacity)
1 – Create EB Ramps T-intersection	1,520 trips	1,060 trips – 70%	240 trips – 16%	220 trips – 14%
2 – All future lanes minus dual lefts	1,610 trips	1,060 trips – 66%	240 trips – 15%	310 trips – 19%
3 – Signalize EB and WB Ramps intersections	3,325 trips	1,060 trips – 32%	240 trips – 7%	2,025 trips – 61% <sup>5</sup>

Notes: Based on PM peak hour traffic volume capacity at the Robb Drive/I-80 EB Ramps intersection.

Phase 1 – Add third (south leg) to the Robb Drive/I-80 EB Ramps intersection (T-intersection with stop control on EB leg). Construct Robb Drive extension south of I-80 EB Ramps. No improvements are required at the Robb Drive/I-80 WB Ramps intersection.

Phase 2 – Construct all intersection and roadway geometrics to build-out conditions (without signals) and stripe out dual left-turn lanes until signalized.

Phase 3 – Signalize Robb Drive/I-80 WB Ramps and Robb Drive/I-80 EB Ramps intersections. Open all dual left-turn lanes (remove temporary striping).

- 4. The Robb Drive/I-80 EB Ramps intersection governs capacity.
- $5. \ This\ capacity\ remains\ for\ other\ development\ projects\ south\ of\ the\ Robb\ Drive/I-80\ interchange.$

Source: Headway Transportation, 2022















