Volume Balancing Check List	
Category	**General considerations**
Volume Imbalances	Check for any volume imbalances. If present, consider the following questions: • What is the magnitude of the imbalance? • Are there access points along the corridor? If so, consider the type of access point (residential driveway, commercial driveway, minor street) and the associated land use to assess if the driveways reasonably account for the imbalance? • Does the imbalance occur at a critical location (e.g., locations at or approaching unstable flow, weaving areas, etc.)? If not, small (≤ 10%) imbalances may be acceptable, provided the documentation justifies the imbalance. • If the imbalance seems unrealistically high (> 10%), is there potential to reduce the imbalance by combining multiple low volume driveways into one or more "dummy" intersections? • Does the analysis include the use of a closed-system micro- and/or mesoscopic model (e.g., Vissim)? If so, volumes must balance. Does the documentation support any remaining volume imbalances?
Volume Comparisons	Compare raw/initial to balanced volumes. Use WisDOT root normalized squared error (RNSE) metric o RNSE less than 3.0 are typically acceptable, o RNSE 3.0 to 4.9 may be acceptable, o RNSE 5.0 or greater require further investigation Are the raw/initial counts from the same time frame (hour, day, month, year)? If not, the magnitude of the difference between the raw/initial and balanced volumes may be significant (RNSE > 5.1). For future volumes, were the traffic forecasts developed using balanced existing/base volumes? If so, unless the growth rates along the study area vary significantly, the magnitude of the difference between the raw/initial and balanced volumes should be low (RNSE ≤.3.0) Does the documentation explain the reason for all RNSE values >5.0?

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Category	**General considerations**
Volume Directionality	Compare the overall directionality of the balanced volumes to that of the raw/initial volumes. • The overall directionality of the balanced volumes *should* be consistent with the directionality of the raw/initial volumes. • For example, if the raw/initial volumes have higher northbound versus southbound volumes, then the balanced volumes should also reflect higher northbound than southbound traffic. If applicable, does documentation justify any inconsistencies?
Trends/Patterns	When looking at the raw/initial volumes compared to the balanced volumes look for any observable trends or patterns. • For example, if progressing eastbound along the corridor, are the raw/initial volumes consistently increasing or decreasing to achieve the balanced data set? • Unless there are mitigating circumstances (e.g., counts on the east boundary are known to be low), volume balancing should distribute changes in volumes proportionally across the entire corridor. As such, observable trends/patterns *should* be minimal. If applicable, does the documentation justify any trends/patterns?
Consistency Between Alternatives	Where alternatives share common geometry and land uses, is the relative change (increase/decrease, trends/patterns, etc.) between the initial/raw volumes and balanced volumes consistent amongst the alternatives? If not, does the documentation justify the inconsistencies?