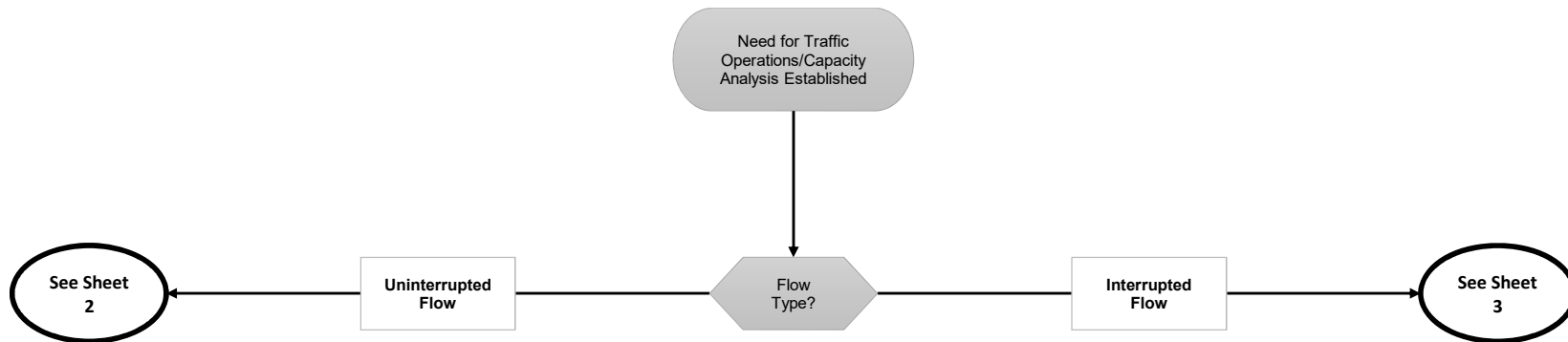


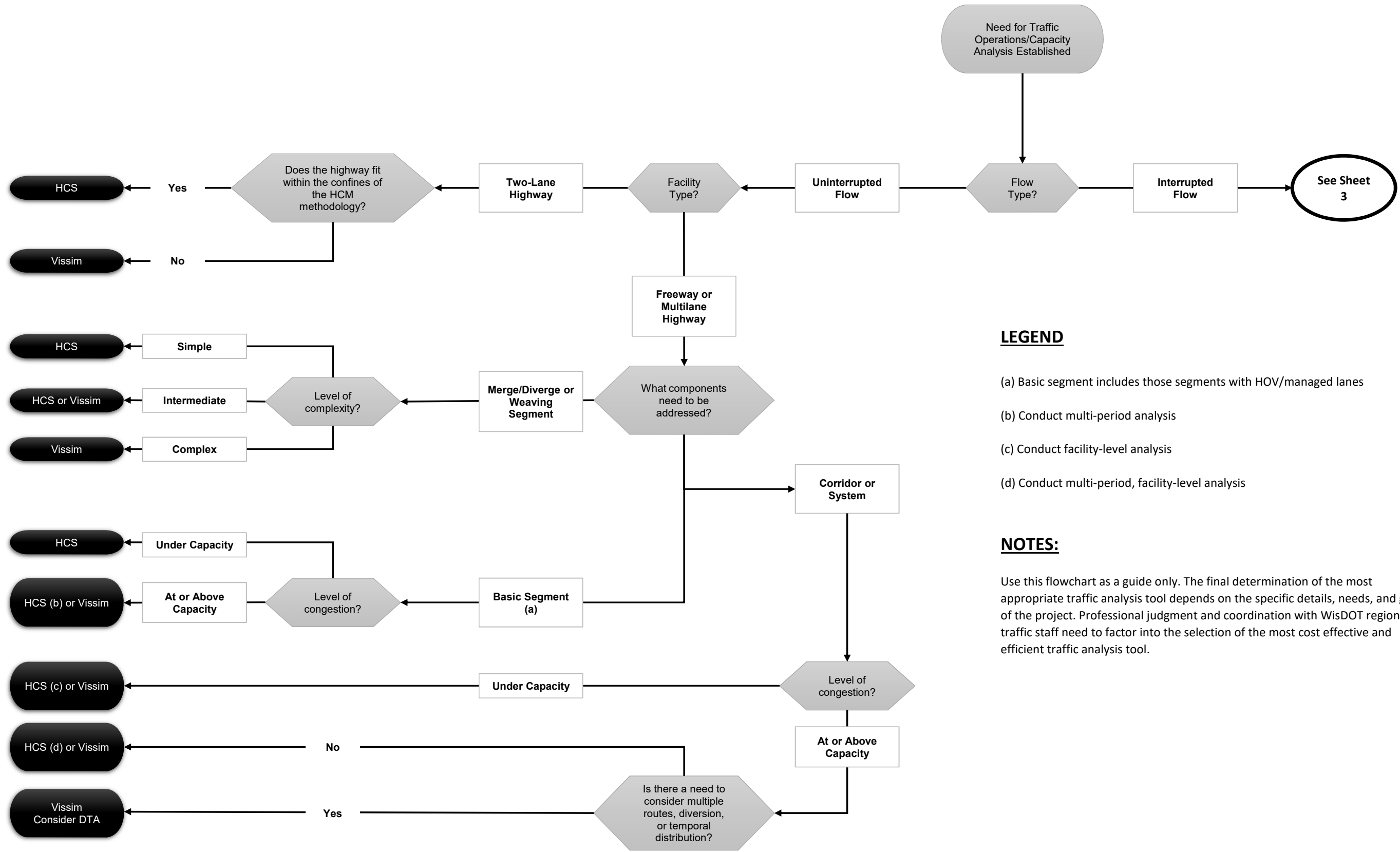
## Attachment 5.1 Traffic Analysis Tool Selection



### **NOTES:**

1. If the project consists of both uninterrupted and interrupted flow facilities, follow the path for each type of flow independently. Utilize the tool that will best address both flow regimes and will result in the most efficient use of resources. This may require the use of the most comprehensive tool (Vissim) or it may require the use of multiple traffic analysis tools.
2. Use this flowchart as a guide only. The final determination of the most appropriate traffic analysis tool depends on the specific details, needs, and goals of the project. Professional judgment and coordination with WisDOT regional traffic staff need to factor into the selection of the most cost effective and efficient traffic analysis tool.

# Attachment 5.1 Traffic Analysis Tool Selection



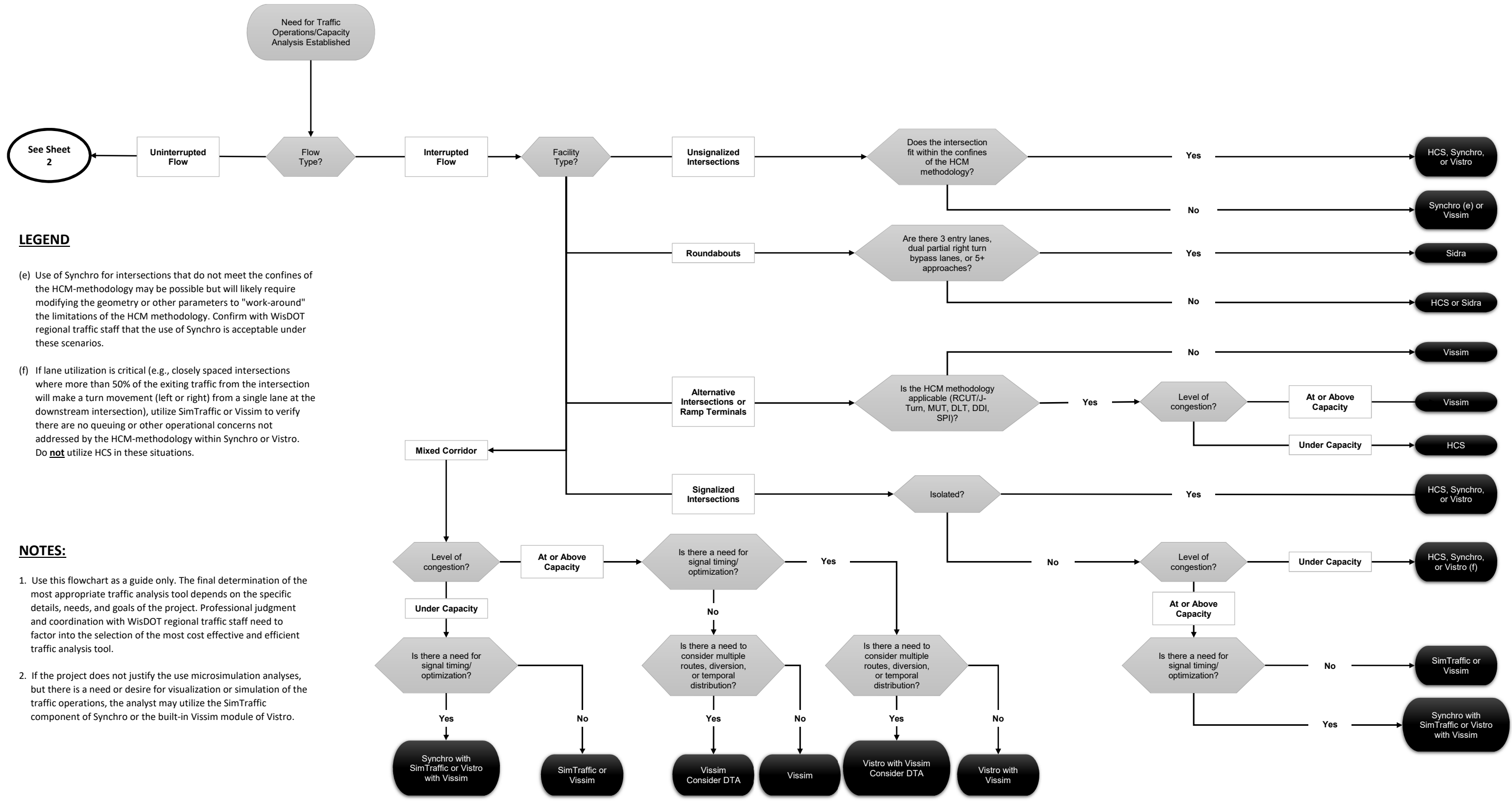
## LEGEND

- (a) Basic segment includes those segments with HOV/managed lanes
- (b) Conduct multi-period analysis
- (c) Conduct facility-level analysis
- (d) Conduct multi-period, facility-level analysis

## NOTES:

Use this flowchart as a guide only. The final determination of the most appropriate traffic analysis tool depends on the specific details, needs, and goals of the project. Professional judgment and coordination with WisDOT regional traffic staff need to factor into the selection of the most cost effective and efficient traffic analysis tool.

# Attachment 5.1 Traffic Analysis Tool Selection



**LEGEND**

(e) Use of Synchro for intersections that do not meet the confines of the HCM-methodology may be possible but will likely require modifying the geometry or other parameters to "work-around" the limitations of the HCM methodology. Confirm with WisDOT regional traffic staff that the use of Synchro is acceptable under these scenarios.

(f) If lane utilization is critical (e.g., closely spaced intersections where more than 50% of the exiting traffic from the intersection will make a turn movement (left or right) from a single lane at the downstream intersection), utilize SimTraffic or Vissim to verify there are no queuing or other operational concerns not addressed by the HCM-methodology within Synchro or Vistro. Do not utilize HCS in these situations.

**NOTES:**

1. Use this flowchart as a guide only. The final determination of the most appropriate traffic analysis tool depends on the specific details, needs, and goals of the project. Professional judgment and coordination with WisDOT regional traffic staff need to factor into the selection of the most cost effective and efficient traffic analysis tool.
2. If the project does not justify the use of microsimulation analyses, but there is a need or desire for visualization or simulation of the traffic operations, the analyst may utilize the SimTraffic component of Synchro or the built-in Vissim module of Vistro.