

Sample Analysis Process Checklist

1. Get Clear Direction

To have success on a project, it is important to have clear direction on what is needed. Contact the project leader/planner to discuss the project and determine:

- What is the project purpose?
- What are the goals and objectives for the project?
- What are we trying to fix? Make sure you understand what the customer is asking.
- Obtain and review the project prospectus from the project leader.
- Determine study area of the project.

Determine the decision process to be used for how the problem/project will be approached. Determine how/where analysis fits into the process. Identify appropriate analysis tools corresponding to the level of detail needed. Confer with other staff members to help determine the approach.

Determine if a transportation model exists and if the model is sufficient for the project or it will need to be updated or modified. Talk with the region-appropriate Modeling Group Leader.

Travel Demand Model _____ Last Updated _____
Model Base Year _____ Model Future Year _____

Taking the above into account, write a workscope with assistance from the region-appropriate Analysis Group Team Leader. Send a copy of the workscope to the project leader for their review and comment.

✓ **SOW CHECKPOINT – (Reviewed By/Date):** _____

2. Set up Project Files (this is our Active Project File)

Organize electronic and paper files for current and future reference. Follow the folder template structure as shown in Appendix Mc in the TPAU Data Organization Manual. There can be subfolders underneath the main folders, added as needed. Have the key contact furnish the appropriate empty file folder set. At a minimum, there needs to be a project e-mail file, however, subfolders can be added that follow the Appendix Mc folder structure. Include a copy of this checklist in the Project Management Folder.

✓ **Project Files CHECKPOINT – (Reviewed By/Date):** _____

3. Review Existing Documents

Review any TSP, Corridor Plans, Refinement Plans, environmental documents, past project reports, or other relevant document that has been completed for the area.

Summarize the issues and concerns that affect the project area in a Memo to The File. Check the unit's library, file archive, TPOD and the Planning Section library for previous work. Contact the ODOT region planner and region access management staff to see if any studies have been done recently in the project area.

✓ **Existing Documents CHECKPOINT – (Reviewed By/Date):**_____

4. Inventory Existing Transportation System

This process includes a mandatory field visit to the project site with another transportation analyst, as well as gathering other information from other units, agencies, and local governments.

Produce a map of the study area using GIS and PowerPoint before obtaining field inventory data. If available, obtain an aerial photo or photomosaic (if available) from ODOT Photogrammetry Unit or Region Roadway Section.

a. Office Inventory Data

- Obtain or order manual counts following the APM. Check the manual count logs to determine if counts no more than three years old exist for the study area. Check to see if a noise study will be needed.
- Identify truck routes.
- Identify functional class and jurisdiction of roadways.
- Identify area type (urban, rural, MPO, etc.).
- Identify if any UBA or STA exists.
- Identify any expressway or freight routes.
- Identify applicable OHP and HDM v/c standards.
- Identify applicable access spacing standard.
- Determine from online Transviewer inventory data:
 - Intersection spacing and uphill/downhill percent grade of roadway.
 - Any state highway speed zoning, roadway widths and other inventory data.
 - State highway and non-state highway crash data.
 - Determine the crash rates and 5 year crash history.
- Are there environmental constraints? This information should be available from the project team leader and the region environmental section.
- Obtain signal timing sheets from ODOT Region Traffic Section, or local governments if timing is not state-controlled.
- Get a map of the land use (comprehensive plan) and a copy of the zoning code for the study area.
- Determine origin and destinations for people in the study area. Have there been household or O-D surveys done for the area that you can use to determine where people are going? Is there a transportation model that can be used? Is a license plate survey needed? Check with the team leader before conducting a license plate survey, because they are expensive.

✓ **Office Data CHECKPOINT – (Reviewed By/Date):**_____

b. Field Inventory Data

- Field inventory data, where possible, should be indicated on graphical sketches of the project area.
- Take pictures, video and notes of the project site, especially of unusual traffic patterns or operations.
- Roadway Data to be determined:
 - Number of lanes and lane configurations
 - Lane/median/shoulder widths.
 - Storage bay and taper lengths.
 - Crosswalk lengths.
 - Number and the spacing/location of accesses.
 - Parking conditions. Pictures from a site visit work well for this. Note if parking is allowed and frequency of parking movements.
 - Bus stop locations and number of routes and frequency.
 - Identify the bike and pedestrian facility availability and whether they are being used or not.
 - Posted speeds.
 - Queuing problems/concerns.
 - Obtain roadway segment travel times through the project area.
 - Obtain travel speeds (floating car or radar) on main facilities.
 - Sub-standard geometry (sharp curves, poor sight distance). Confirm with ODOT Region Roadway Section.
 - Are there railroads, waterways, terrain, or other limitations?
- Intersection Data to be determined:
 - Traffic control device locations and type (two-, three- and four-way stop controls, signals, roundabout, etc.). Put these on a copy of the study area map for easy reference.
 - Locations where turns/right turns on red are prohibited or where U-turns are allowed.
 - Cycle length and phasing type (protected, permissive, protected/permissive, split) of signalized intersections.
 - Conduct saturation flow rate studies at key signalized intersections following TPAU and HCM procedures.
 - Conduct peak hour manual counts at several locations on the project to get a feel for what is going on.

✓ **Field Data CHECKPOINT – (Reviewed By/Date):**_____

5. Determine Transportation Needs

Existing Volumes

Develop the existing 30HV using appropriate seasonal and historical adjustments. Balance the 30HV for the current year. See the APM for details.

✓ **Existing Volumes CHECKPOINT – (Reviewed By/Date):** _____

No-build Future Volumes for Build Year and Design Year

Determine the build year and future no-build traffic volumes. See the APM for details. Consult the project prospectus, team leader, and the regional Environmental Section to help determine the build year, the future year and any interim year's analysis. Additional sets of future volumes may be necessary if TDM, Transit or alternative land use scenarios were created. TDM should have been done in the TSP or Corridor Plan. TDM is frequently included in model runs as an input for large cities. Ask the modeling group or the local council of governments if you don't know.

✓ **Future No-Build Volumes CHECKPOINT – (Reviewed By/Date):** _____

No-build Analysis

Determine existing and future no-build v/c, LOS, and storage length requirements. Consider bike, pedestrians, and public transportation in your evaluation. Use the OHP v/c's for the no-build v/c standards for state facilities.

Determine needs based on v/c, LOS, storage and inventory of the project area. Things like access spacing, intersection spacing, signal timing, pedestrian issues, parking issues, sight distance issues, storage issues, alignment problems, truck issues, and grade issues should be included in the needs. Also, include any problems/concerns brought up in the TSP, Corridor Plan, or Refinement Plan for the study area.

Develop at least one technical memorandum documenting existing through future no-build conditions.

✓ **Needs Analysis CHECKPOINT – (Reviewed By/Date):** _____

6. Develop and Evaluate Alternatives

Review goals and objectives with the project team, considering the needs identified in step 5. The project team should establish the evaluation criteria based on the goals and objectives. Make sure there is agreement on the evaluation criteria before proceeding with the analysis. For future alternatives, use the HDM v/c's for comparisons.

The conceptual alternatives must be screened down to a reasonable number (2 to 5) for full analysis. Screening should be multi-tiered where possible. For example, a transportation model can be used to compare alternatives as a first tier and DHV's at key intersections can be done as a second tier. Track status of all alternatives considered, including reasons if screened out.

✓ **CHECKPOINT – (Reviewed By/Date):**_____

Develop and Evaluate Alternatives – Develop DHV and evaluate the following (see the APM, Chapter 10 for details):

- Elements common to all build alternatives (safety, completion of certain facilities, extending local streets, etc.).
- Transportation System Management – Channelization, timing, etc.
- Transportation improvements/additional capacity.

The project team will identify 2 to 5 viable alternatives using the evaluation criteria developed by the team. These alternatives will usually go into the public involvement process for public review and comment.

Develop at least one technical memorandum documenting the screening of alternatives. The memo should include concepts considered, level of analysis and criteria used to screen concepts.

✓ **CHECKPOINT – (Reviewed By/Date):**_____

7. **Select Preferred Alternative(s) – Alternatives that go into an EA/EIS**

Before selecting a preferred alternative, the Solution or Project Development Team may need to revisit/refine the evaluation criteria from step 6. Consult central and/or ODOT Region Traffic Section to see if progression analysis is needed before a new or modified signal is recommended for any of the alternatives. The progression analysis will become part of the refined evaluation criteria.

Select Preferred Alternative(s) - This is done by the project team based on the evaluation criteria that they develop and public input.

Develop at least one technical memorandum documenting the analysis of alternatives selected. Memo should include alternatives, level of analysis, criteria and evaluation used to select alternatives.

✓ **CHECKPOINT – (Reviewed By/Date):**_____

8. **Draft Traffic Narrative (See APM for details.)**

- Write the draft narrative for the project.
- Have draft narrative reviewed by team leader.
- This step may not be necessary if no air/noise data is required.

✓ **CHECKPOINT – (Reviewed By/Date):**_____

9. Develop Air/Noise Traffic Data (See APM for details.)

- No-Build – base, build and future years
- Preferred Alternative(s) – build and future years

✓ **CHECKPOINT – (Reviewed By/Date):**_____

10. Final Traffic Narrative (See APM for details.)

- Update the draft narrative with any changes.
- Have final narrative reviewed by team leader.
- Have TPAU Key Contact format narrative once all review is done.
- Narratives are required to be stamped by a professional engineer, whether this is the preparer or the final reviewer.
- Distribute according to regional distribution lists

✓ **CHECKPOINT – (Reviewed By/Date):**_____

11. Compile/Review Project Files

Paper, electronic and e-mail files must follow the template structure as shown in Appendix Mc in the TPAU Data Organization Manual. There can be subfolders underneath the main folders, added as needed. There needs to be at a minimum, a project email file however, subfolders can be added that follow the Appendix Mc folder structure. All files that are required need to exist and filed correctly. Electronic files need to follow the naming conventions. Any deviations need to be corrected.

✓ **CHECKPOINT – (Reviewed By/Date):**_____

12. Inactive Project Files

After final environmental document (for an EA or EIS) or final narrative/tech memo has been published, and frequent questions have ended, the project files are moved out of the active workspace. Paper files are moved to the unit file area. E-mail files are added to the electronic correspondence folders. The electronic folders are moved from your local network drive to the appropriate County folders on the 6420only network drive following the electronic filing rules in the TPAU Data Organization Manual.

✓ **CHECKPOINT – (Reviewed By/Date):**_____

13. Archive Project Files

After project has been constructed or the plan has been superseded by the next effort, the project files are moved out of the inactive files. Paper files are boxed and moved to the unit archive area or sent to the designated Archives Building storage area. Electronic and E-mail files are moved from the County folders on the 6420only network drive to the appropriate County folder on the 6420Archive drive. See the TPAU Data Organization Manual for reference.

✓ **CHECKPOINT – (Reviewed By/Date):**_____