Rule 0830 Alternatives Analysis Process Guide

This document is intended to be a conversation starter and guide for agencies completing a Rule 0830 'alternatives analysis' as outlined in OAR 660-012-0830(5) for individual or bundled Rule 0830 projects. Prior to getting to this 'alternatives analysis' stage, a jurisdiction should have reviewed likely Rule 0830 projects from existing plans, confirmed Rule 0830 applicability, had local conversations about priority projects to move forward in a TSP update, and considered any efficiency measures such as bundling related projects into a single analysis or integrating Rule 0830 analysis into other ongoing planning work.

While this document is framed to support alternatives analysis for specific projects once a TSP update is underway, it may be a useful reference for the earlier steps of developing a list of Rule 0830 projects and scoping for required work in a TSP update.

Coordination

Rule 0830 requires coordination with jurisdictions within two miles of the proposed project. Additionally, it may be valuable to engage with agencies which may be key players in any viable alternative.

- Are the right agencies engaged to meet Rule 0830 requirements and identify cross-agency solutions (e.g. transit agencies or where a park and ride may be located)?
- Are there new people at the table to debrief on prior conversations or work referenced below?

Leveraging existing work and modeling

Many Rule 0830 projects have been analyzed in prior planning efforts and discussed in community forums. Leveraging this prior work, if it is still applicable, can create cost savings and demonstrate durable community engagement.

- Are there existing (recent) analyses you can use?
- If the proposed Rule 0830 project is on the RTP financially-constrained list, is it in the respective travel demand model?
- Does the prior work still reflect current and forecasted conditions? Do assumptions or performance standards need to be revisited?

Understanding the purpose and need

Revisiting the original 'purpose and need' can ground the conversation and be a starting point for the alternatives analysis. Consider if the originally identified need still exists in the same form, what types of alternatives should be discussed and who should be engaged in the conversation.

- What is the identified purpose and need for the proposed project?
- What is creating the vehicle demand that is driving the need for expanded road capacity? For example,

    - Are there key land uses, origin-destination pairs, schools, employers or events that are creating travel demand?
    - Can the local street network serve local trips or are local trips using the highway system?
    - Are there deficiencies in the local bicycle/pedestrian/transit network that limit use of these modes to offset demand?
    - Is the need for the proposed project driven by a peak period or special event? Or does it represent a more prevalent and longer-lasting congestion constraint?
- Were other alternatives considered in the past to address this issue? If so, why were those options not selected?
- Would the need for the project be the same if different performance measures were applied? For example, if a performance measure based on a 60-minute peak hour conditions (peak hour factor of 1.0) was used instead of applying the more traditional 15-minute peak, would the need for the project change?

Identifying the Right Level of Analysis

While a travel demand model is a key tool for transportation planning, it is not the only tool. It is important to select and consistently apply the correct tool across both the proposed project and any alternative solutions.

- First, complete a qualitative review of the full range of modal solutions. From that qualitative review, select the best performing and most feasible alternative(s) in each of the modal categories. Combine the best performing modal alternatives into one or more "alternatives to the proposed project" scenarios. Those scenario packages can then undergo a more detailed quantitative analysis which may include a travel demand model run (see Table 1).
- Be sure to complete an "apples-to-apples" comparison between the *proposed project* and the "*alternative to the proposed project*". For example, if the proposed project will be analyzed using a travel demand model, then the alternative to the proposed project should also be analyzed using a travel demand model.

Table 1: Decision Matrix for Scale of 660-012-0830 Analysis

Proposed Project Scale	Is Modeling Necessary?	Project Examples
Freeway, expressway or other ODOT-sponsored highway project	Yes	I-5 Boone Bridge, auxiliary lanes between multiple interchanges, new expressway travel lane, interchange modifications such as reconstruction to widen and/or reconfigure entrance/exit ramps
Non-ODOT project that has the potential to increase in VMT	Yes, especially if the project is included in the RTP or regional travel demand model	New highway overcrossing without ramp connections, arterial widening

Project qualifies as “capacity adding” per rule 0830 but is not categorized at the scale of the projects listed above	Depending on circumstances, the analysis may be done without travel demand modeling	5-lane local roadway extension

Developing Alternatives

It can be challenging to reconsider longstanding and traditionally designed projects. The questions below can prompt creative thinking, challenge prior assumptions and help tackle the question, “Is there a reasonable and viable alternative to a capacity-expanding project?”

- Do your alternative(s) cover the required modal categories: bicycle/pedestrian, transit, transportation options, and system pricing?
- Can you remove capacity expansion elements from the project while retaining safety, reliability, and resilience elements?
- Have operational strategies been considered (e.g. ramp metering)?
- Can operations, alternative mode, or pricing solutions be staged first to delay the need for capacity expansion?
- After a qualitative review of modal alternatives, what bundle of modal solutions would create the best package to move forward into quantitative analysis as a reasonable and feasible alternative?
- Can a mix of the following actions address the purpose and need in a more multi-modal way?
    - Operational fixes focused on reliability – ramp metering to keep local trips on local streets, signalization changes, access control, incident response or event management
    - TDM programs and incentives – carpool programs, transportation wallet programs, work commute and programming for special events/destinations
    - Transit – bus-on-shoulder or other service solutions that can be tested in ReMix
    - Bike/ped networks – would a focus on bike/ped connectivity help address the need?
    - Parking restrictions/fees – including at events, key employers and downtown areas
    - Lane management (truck-only lanes, HOV lanes) and pricing/fees
    - What alternative solutions are already prioritized in local plans?