



# GDOT Publications

## Policies & Procedures

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**Policy:** 3140-1- Responsibility and Procedures for Interchange Justification IJR and Interchange Modification IMR Reports

**Section:** Interchange Policy

**Office/Department:** Office of Planning

**Reports To:** Division of Planning

**Contact:** 404-631-1000

### Purpose and Goal

This policy documents the Department's Interchange Justification Report (IJR) and Interchange Modification Report (IMR) policy and responsibilities associated with preparing each. These guidelines address local requests for new or revised interchanges, initial reviews to determine if minimal requirements will be met, Federal IJR/IMR guidelines and requirements, supporting data needed to accompany the IJR/IMR, and submission to Federal Highway Administration (FHWA) for review of engineering and operational feasibility, for access breaks/new interchanges on the Interstate System (new interchanges on on-interstate limited access roadways will be approved by the Planning Director and Chief Engineer). FHWA's actual approval of an access break/new interchange on the Interstate System occurs when FHWA approves the environmental document. If the Department proposes a new interchange(s), the Office of Planning will assume responsibility for preparing the IJR, incorporating concept and capacity/weave analyses prepared by the Division of Engineering.

Modifications of existing interchanges may require preparation of an Interchange Modification Report (IMR). As interchange modification is a function of design issues, the design office managing the project is responsible for the preparation of the IMR. Preparation of the IMR and supporting material should be incorporated in the Department's design/concept contracts as a deliverable. The Office of Planning will review and provide comments on the draft IMR and will manage (if applicable) the development of an IMR requested by local governments where there is not a project programmed, or a previous study/analysis articulating the needed interchange modifications has not been completed.

The Office of Planning will review and submit IJR/IMR (on the Interstate System) to FHWA (if applicable) for their consideration and review. FHWA review process is a two (2) step process as outlined in FHWA's August 27, 2009, Federal Register Notice 74 FR 20679 titled "Access to the Interstate System". The first step is a determination of engineering and operational feasibility, which occurs with submittal of the IMR/IJR to FHWA. This determination is not considered a federal action and does not require the project to be included in a MPO Transportation Plan, a Transportation Improvement Program or a State Transportation Improvement Program. The second step, formally approving the new or revised access point, occurs when FHWA approves the project's environmental document. The second step is considered a federal action and will require that the interchange project is included in the Transportation Plan, Transportation Improvement Program and/or State Transportation Improvement Program.

Prior to the submittal of IJR/IMR to FHWA, the Office of Planning will ensure that the report(s) is ready for FHWA's review (i.e. quality control). Note: the Office of Planning will review IMR that originate outside the Department, to ensure compliance with FHWA's policy criteria as well as the proposed improvement's need/purpose. A design office within the Department will perform a technical review for design components. For IMR that originate and/or are programmed projects, the design office managing the

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**Date Last Reviewed:** 12/5/2014

project will be responsible for preparing the IMR, and the Office of Planning will be responsible for reviewing to ensure compliance with FHWA's policy criterion and the proposed need/purpose.

## Applicability

The policy and guidelines contained herein apply to new or revised access points to the Interstate System, regardless of funding source. The procedures and responsibilities outlined in this policy also apply to freeway facilities on the Appalachian Development Highway System (ADHS), non-Interstate facilities, freeways or other limited access highways. The FHWA has review and approval authority for new or revised access points to the Interstate System. For other cases (non-interstate ADHS, non-interstate facilities, freeways or other limited access highways), the Department Planning and Chief Engineer has review and approval authority.

## General Procedures

### I. Applicable Definitions:

- A. Minimum spacing is calculated as the crossroad to crossroad distance between the proposed interchange and the adjacent upstream and downstream interchanges. In urban or suburban areas with high-density development and/or complex transportation features, use of grade-separated ramps or collector-distributor roads may be considered to manage safety and other operational difficulties associated with proposed interchanges not meeting the minimum spacing guideline.
- B. Average spacing reflects the crossroad to crossroad distance between downstream and upstream interchanges beyond, but adjacent to and including those used to calculate minimum spacing. Existing interchange spacing is calculated as follows: there are four interchanges (A, B, C, and D); the distance between interchanges A and D is "Z" miles; the average spacing is therefore Z divided by 3 (the spacing between interchanges A and B, B and C, and C and D). A new interchange (X) is proposed to be located between interchanges B and C; therefore the proposed average interchange spacing would be Z divided by 4 (the spacing between interchanges A and B, B and X, X and C, and C and D).
- C. **Urban and rural areas are as defined by the latest U.S. Census.** If a proposed interchange is located within a Census-defined urban cluster or urbanized area, it is considered either an urban or suburban area. If the proposed interchange is located outside an urban or urbanized area, the area is considered rural. As the next Census approaches, it is probable that some locations within Census-defined rural areas could exhibit urban characteristics (see D).
- D. Suburban areas traditionally provide an informal transition area between areas with urban or rural characteristics. "Suburban" is based on prudent judgment of such factors as land use and density of development. Use of suburban area spacing guidelines will require Sponsor's documentation of the various contributing factors. Based on information provided by the Sponsor, the Office of Planning will determine the appropriateness of "suburban" area designation. This designation is for planning purposes only and unrelated to design criteria and guidelines.
- E. Metropolitan Planning Organization (MPO) is the transportation planning entity designated by the Governor to receive Federal transportation planning funds for the conduct of the "3C" metropolitan planning process. The MPO is responsible for meeting the Federal transportation planning requirements within areas designated by the Census as urbanized areas.
- F. "Sponsor" refers to the governmental entity having jurisdiction for the geographic area in which the proposed interchange is located (i.e. a City or County).

- II. This Policy recognizes that there are two types of planning processes and areas within which Sponsors may be located: within MPO areas and those located in non-MPO areas.

For proposed interchanges located in non-MPO areas, the Sponsor of the proposed interchange addition is responsible for providing, to the Department's Office of Planning, the information required under Section II-A of this Policy, along with the request for the new interchange.

For proposed interchanges located within an MPO's geographic area of responsibility, the process is more complex. The MPO will ensure that the proposed interchange (the project) is not included in the transportation plan (e.g. LRTP or RTP) or the Transportation Improvement Program (TIP) until the proposed interchange has been determined, by the Department, to be feasible in accordance with the criteria contained in Section II-A. Therefore, should the MPO receive a request for a new interchange, they will notify the Sponsor of the Department's Interchange Policy and requirements. The Sponsor of the proposed interchange is responsible for providing the information required under Section II-A. The request for a new interchange and the information required under Section II-A will be submitted to the Department's Office of Planning through the MPO. The Department's Office of Planning will not accept or review any request that does not originate from the MPO. If a new interchange is proposed during the MPO's update of the transportation plan, the MPO will ensure the Department is provided the information required under Section II-A. The timeframe of the submittal will be such that the Department can review and determine feasibility prior to the IJR's inclusion in the plan. Responsibility for preparation of Section II-A information will be addressed between the Sponsor and the MPO. If the Department proposes the new interchange, the Department will develop the information required under Section II-A and will coordinate with the MPO during the development of the material pursuant to Section II-A.

Under either planning process (MPO or non-MPO), the Office of Planning will review the Sponsor's information and determine if the interchange addition appears to be feasible. The following describes the information required of the Sponsor (Section II-A) and the Department's review procedures (Sections II-B & C).

- A. As part of the feasibility review, the Sponsor must provide the Department, as appropriate per the above, with the following information:
1. A hard copy of the analysis demonstrating the minimum and average spacing of the proposed interchange. Interchange spacing guidelines are as follows:
    - a. Minimum spacing of one (1) mile in urban areas with an average spacing of two (2) miles, or
    - b. Minimum spacing of two (2) miles in suburban areas with an average spacing of four (4) miles, or
    - c. Minimum spacing of two (2) miles in rural areas with an average spacing of eight (8) miles.
  2. Define the study area's classification as urban, sub-urban, or rural and provide supporting documentation; such documentation needs to be logical and relevant to the proposed interchange.
  3. A written statement and supporting data demonstrating why the Sponsor considers the proposed interchange as needed:
    - a. A written statement defining the need and purpose for the proposed interchange, including why access at existing interchanges are not adequate, local commitments that support the need and purpose (such as pending development, letters of interest from companies, dedicated special purpose local option sales tax, etc.).
    - b. An environmental scan and documentation detailing existing infrastructure in vicinity of the proposed interchange, including water, sewerage, utilities, schools, and roads.

- c. Documentation detailing current land use & zoning, existing and pending development (ground-breaking within 5 years), future land use plan and current comprehensive plan as approved by DCA.
    - d. Existing and forecasted daily traffic volumes with and without the proposed interchange (Build and No-Build). Volumes shall be provided for the "mainline" facility, adjacent interchanges, parallel roadways, and the surface street network of roadways providing access to and between the subject interchanges.
    - e. Other information: any other material that would illustrate need for the proposed interchange.
  - 4. Written documentation addressing each requirement delineated in the FHWA's IJR Guidance, included below as Section III, Subsections A-H.
- B. The Office of Planning will analyze data including: existing and forecasted daily (24-hour) traffic volumes, roadway conditions (e.g. current and future LOS), existing access to the Interstate System, and the information supplied by the Sponsor.
- C. The Office of Planning will develop a recommendation and notify the Sponsor, and MPO if applicable, of the determination of feasibility:
  - 1. If the review indicates the proposed interchange is not feasible, the Department will notify the Sponsor, and MPO if applicable, and take no further action with the proposal.
  - 2. If the review indicates the proposed interchange may be feasible and could possibly benefit regional access, the Department will notify the Sponsor. Following the establishment of feasibility for the proposed interchange and confirmation that the Sponsor wishes to pursue the development of an IJR (pursuant to section II-C 3), the IJR will be developed by or through the Office of Planning. Once the IJR is reviewed and approved by GDOT, it will be submitted to FHWA (if applicable) in accordance with the process described in the subsequent sections of this policy. Within MPO areas, an IJR will not be submitted to FHWA for approval until development of the IJR document/study is contained or identified in the adopted LRTP (Long Range Transportation Plan). The MPO may include the proposed interchange (actual project) in the transportation plan in accordance with their procedures and if the transportation plan will remain financially constrained. Note: There is a distinction between an 'IJR' and the actual proposed interchange. 'IJR' will signify the report, study, or document that assesses the proposed project. Whereas, the actual proposed interchange is considered the proposed project or the final outcome of an IJR that has made a positive determination of engineering and operational feasibility. The Department strongly recommends that MPO do not include proposed interchanges in their LRTP prior to FHWA determining engineering and operational feasibility of the interchange. However, if a MPO chooses to include a proposed interchange prior to FHWA determination, it is strongly discouraged for the MPO to list federal and/or state funding as a funding source.
  - 3. Initiation of the IJR is as follows:
    - a. The Sponsor is responsible for 100% of the costs associated with the Department procuring and selecting a consultant to develop the IJR and concept layout. The Office of Planning will provide the Sponsor with an estimate for the necessary consultant services and a memorandum of understanding (MOU) for execution by the local government.
    - b. Upon receipt of a fully executed MOU, the Office of Planning will secure consultant services for the development of the IJR, the required support data and analyses, and a reproducible concept layout.

- c. The Office of Planning will manage the consultant contract. The consultant must be prequalified with the Department for the appropriate planning and design area classes. Review of deliverables will be a joint effort between the Office of Planning, the design office and the sponsor.
- d. Before the Department executes the agreement with the consultant, the Sponsor's funds, covering the costs to produce the IJR and supporting information, must be on deposit with the Department.
- e. The Sponsor must appoint a person to serve as the Sponsor's "single point of contact" for the Department and the consultant.
- f. The Sponsor's "single point of contact" will be responsible for providing the Department's consultant with other appropriate points of contact, current and future zoning and land use information, and any other information that would further document the Sponsor's statement of the interchange's need and purpose and fulfillment of the IJR data requirements.
- g. The IJR/IMR must address FHWA's guidance contained in the "Interstate System Access Information Guide". See requirements at:  
<http://www.fhwa.dot.gov/design/interstate/pubs/access/access.pdf>

III. The following excerpt is from the Interstate Access Policy dated August 18, 2009, and is provided for user convenience only. Please see the above website for FHWA's latest requirements.

*Policy. It is in the national interest to preserve and enhance the Interstate System to meet the needs of the 21st Century by assuring that it provides the highest level of service in terms of safety and mobility. Full control of access along the Interstate mainline and ramps, along with control of access on the crossroad at interchanges, is critical to providing such services. Therefore, the FHWA's decision to approve new or revised access points to the Interstate System must be supported by substantiated information justifying and documenting that decision. The FHWA's decision to approve a request is dependent on the proposal satisfying and documenting the following requirements:*

#### **Considerations and Requirements**

- A. The need being addressed by the request cannot be adequately satisfied by existing interchanges to the Interstate, and/or local roads and streets in the corridor can neither provide the desired access, nor can they be reasonably improved (such as access control along surface streets, improving traffic control, modifying ramp terminals and intersections, adding turn bays or lengthening storage) to satisfactorily accommodate the design-year traffic demands (23 CFR 625.2 (a)).
- B. The need being addressed by the request cannot be adequately satisfied by reasonable transportation system management (such as ramp metering, mass transit, and HOV facilities), geometric design, and alternative improvements to the Interstate without the proposed change(s) in access 23 CFR 625.2 (a)).
- C. An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new or modified ramps, ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis shall, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (23 CFR 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, shall be included in this analysis to the extent necessary to fully

evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access must include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23CFR 625.2(a)) and 655.603(d)). Each request must also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C 109(d) and 23 CFR 655.603(d)).

- D. The proposed access connects to a public road only and will provide for all traffic movements. Less than 'full interchanges' may be considered on a case-by-case basis for applications requiring special access for managed lanes (e.g., transit, HOVs, HOT lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)).
- E. The proposal considers and is consistent with local and regional land use and transportation plans. Prior to receiving final approval, all requests for new or revised access must be included in an adopted Metropolitan Transportation Plan, in the adopted Statewide or Metropolitan Transportation Improvement Program (STIP or TIP), and the Congestion Management Process within transportation areas as appropriate, and as specified in 23 CFR part 450 and the transportation conformity requirements of 40 CFR parts 51 and 93.
- F. In corridors where the potential exists for future multiple interchange additions, a comprehensive corridor or network study must accompany all requests for new or revised access with recommendations that address all of the proposed and desired access changes within the context of a longer-range system or network plan (23 U.S.C. 109(d), 23 CFR 625.2(a), 655.603(d), and 771.111).
- G. When a new or revised access point is due to a new, expanded, or substantial change in current or planned future development or land use, requests must demonstrate appropriate coordination has occurred between between the development and any proposed transportation system improvements (23 CFR 625.2(a) and 655.603(d)). The request must describe the commitments agreed upon to assure adequate collection and dispersion of the traffic resulting from the development with the adjoining local street network and Interstate access point (23 CFR 625.2(a) and 655 .603(d)).
- H. The proposal can be expected to be included as an alternative in the required environmental evaluation, review and processing. The proposal should include supporting information and current status of the environmental processing (23 CFR 71.111).

IV. The IJR/IMR Data Requirements are as follows:

- A. Planning and Background information, including:
  - 1. Brief description of proposed improvement with location map and diagrams,
  - 2. Response to each of the elements listed in the FHWA policy,
  - 3. Description of the study area and existing transportation facilities (including access/frontage roads and local roadways); the study area should be logical and relevant to the proposed interchange,
  - 4. Need and purpose statement for proposed improvement,
  - 5. Relationship to other transportation projects in area,
  - 6. Relationship to regional comprehensive and/or long-range transportation plans. In non-MPO areas, the proposed interchange must be included in the approved comprehensive plan of the affected county(s) prior to submittal of the IJR to the Department,
  - 7. In non-attainment areas, planning information must be consistent with the conforming transportation plan's assumptions,

8. Distance to and size of communities directly served by proposed interchange,
  9. Distance to the next existing interchange in each direction and other proposed adjacent interchanges, when applicable.
- B. Environmental screening of potential area of impact, including:
1. Review and consideration of resources covered under NEPA for area between existing interchanges so as not to preclude from consideration a less environmentally-intrusive location. Provide map depicting general location of applicable environmental items,
  2. Review and consideration of community issues. Provide map as applicable,
  3. Documentation of alternatives considered during development of the IJR,
  4. Documentation as to why a particular alternate is recommended.
- C. Traffic volumes for "build" alternatives and "no-build," including:
1. Traffic networks will include the Interstate mainline (if applicable) at the site of proposed interchange and include at minimum one interchange each direction from the proposed interchange. The street network within the study area may dictate analysis of interchanges beyond the interchange adjacent to the proposed interchange.
  2. Networks will include traffic data for crossroads within the previously defined study area (e.g. interchanges and their approaches to the interchanges, both existing and proposed).
  3. Traffic data requirements are similar to those already required for project design traffic and as such will also consider any traffic projections available from the Office of Planning. Typical traffic data requirements:
    - a. No-Build and Build Average Daily Traffic (LOS as well) for both Base Year (planned open to traffic year) and Design Year (20 Years from proposed open to traffic year),
    - b. AM/PM Peak, and Midday Peak if applicable, Hourly Turning Movements for all conditions,
    - c. Provide VHT for No-Build and Build scenarios
    - d. Weaving movements on Interstate Mainline to the first adjacent existing or proposed interchange in both directions from subject proposed interchange,
    - e. % 24 Hour Trucks and % Peak Hour Trucks,
    - f. K-Factor and Direction Split (D),
    - g. In non-attainment areas, traffic projections must be consistent with the conforming transportation plan.
- D. Capacity Analyses for "existing", "build", and "no-build" conditions, including:
1. Intersection and arterial capacity analyses for crossroads (and intersections with side streets), ramp junctions within the proposed traffic network as defined in previous Section C1
  2. Interstate mainline and weaving analyses reflecting traffic Network defined in previous Section C1
  3. Selection of analysis tools/software will depend on the complexity of the proposed interchange and its relationship to the transportation system. The degree of anticipated complexity and appropriate software will be determined and included in the consultant's work scope.
- E. Design Concept, including:
1. IJR layouts on aerial imagery; IMR layouts as design plans. Both reflecting appropriate consideration of the site's terrain & environmental features,

2. Adjacent interchanges, configuration of proposed interchange, travel/auxiliary lanes, bridge structures, ramp radii, grades, proposed additions and removals, frontage/access roads and collector/distributor roads,
  3. Lengths of acceleration/deceleration lanes, auxiliary lanes, tapers, ramps, and weaving areas,
  4. Right-of-way and access control limits,
  5. Intersection control information (signalized, STOP signs, turn lanes),
  6. Schematic map (line diagram) of total analysis area depicting:
    - a. Proposed and existing laneage, and
    - b. All merge/diverge, weaving, intersections, roadways, etc. LOS for all movements,
  - F. A computer disk with all files needed to properly examine IJR/IMR options, and
  - G. A description of model calibration, if applicable.
  - H. Cost Estimates for alternatives analyzed in IJR, including:
    1. Preliminary Engineering
    2. Right-of-Way,
    3. Construction:
      - a. Roadway, Drainage, and Paving,
      - b. Bridges and other Major Structures,
      - c. Utilities and
      - d. Signage.
    4. Benefits-Cost for alternatives
- V. Federal Design Requirements:
- A. Interstate and Appalachian Development Highway (ADH) System projects will be designed in accordance with the AASHTO publication, "A Policy on Design Standards--Interstate System."
  - B. Where interchanges with selected public crossroads are constructed, access control must extend the full length of ramps and terminals on the crossroad. Other access controls shall be adhered to for ramp and side street intersection spacing as per Department policies.
  - C. Concept layouts must provide all the information FHWA will need to independently review or perform capacity analyses, weave analyses, and design review.
  - D. The proposed interchange location reflects consideration of environmental issues and concerns.
  - E. FHWA approval of an Interstate break-in-access is based on a "determination of engineering and operational acceptability." Final location and approval of the proposed interchange is contingent on the results of the NEPA process.
- VI. Federal Review and Approval Process:
- A. The Department will review the IJR/IMR prior to its submission to FHWA.
  - B. If during development of the IJR, the proposed interchange's need does not warrant a break in Interstate access, the Department will notify the Sponsor.
  - C. If the IJR determines a break in access may be warranted and the Department determines it will support submittal of the IJR to the FHWA, the Office of Planning will forward 3 copies of the IJR, concept layout, and supporting data to the Georgia Division of the FHWA.
  - D. The Georgia Division of the FHWA may approve:
    1. New freeway-to-crossroad interchanges not located within a Transportation Management Area (TMA). TMAs are urbanized areas with a Census-recognized population exceeding 200,000.



2. Modifications of existing freeway-to-crossroad interchanges.
  3. Completion of basic movements at a partial interchange.
- E. FHWA Headquarters (Washington D.C. Office) may approve:
1. New or major modification to freeway to freeway interchanges.
  2. New partial interchange (such as, a half-diamond interchange).
  3. New freeway-to-crossroad interchanges located within TMAs.
- F. FHWA will notify the Department:
1. If additional information is required before reaching a recommendation, or
  2. If the requested Interstate break-in-access is denied and why, or
  3. If the request is deemed as being engineering and operationally feasible and if any conditions apply to the approval.
- G. The Department will notify the Sponsor and design office of the FHWA's determination and any conditions.
- H. Final FHWA approval is subject to completion of the NEPA process. In non-attainment areas, the proposed interchange must be included in the conforming transportation plan before FHWA may take the approval action.
- VII. The Department's Internal IJR/IMR Review and Approval Procedures:
- A. Review Procedures for Interstate, ADHS and Non-Interstate Limited Access Facilities:
1. The Office of Planning will serve as Lead Office. This Office will review the IJR/IMR documentation for satisfactory consideration and treatment of the required information, including documentation of the proposed improvement's Need and Purpose.
  2. The Director of Engineering will designate a design office to perform an independent review of engineering assumptions, including concept drawings, calculations, and analyses.
  3. The Office of Environment Services will review the concept drawing(s) and IJR/IMR documentation for satisfactory consideration of Need & Purpose, environmental screening, community issues, and alternatives analyzed.
  4. All review comments will be forwarded to the Office of Planning so that comments may be addressed prior to submitting the IJR/IMR for approval. Approval procedures for Interstate facilities are addressed under Section VI., above. See remainder of this section (VII.B.) for approval procedures for ADHS and non-Interstate limited access facilities.
- B. Approval Procedures for ADHS and Non-Interstate Limited Access Facilities:
1. The Office of Planning will prepare a recommendation for consideration by the Chief Engineer with recommendations by the Division of Engineering, and the Division of Transportation Planning and Data.
  2. The Department's approval, and the proposed interchange's final location, is subject to completion of the appropriate environmental (GEPA/NEPA) process. Until that time, the Department's approval represents an opinion that the proposed improvement is engineering and operationally feasible.
  3. The Office of Planning will notify the Sponsor and the Division of Engineering of the Department's action and any conditions placed on that action.
  4. Regardless of the Department's action, the Sponsor's cost for preparing the IJR/IMR is not reimbursable by the Department.

## **References:**

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## **History:**

updated logo: 10/09/18;  
added to TOPPS: 09/11/12