

210 Special Documentation Procedures

210.1 General

This chapter explains special documentation procedures required for specific New Mexico Department of Transportation (NMDOT) projects. Specifically, this chapter discusses required documentation for:

- Design exceptions, design variances, and Americans with Disabilities Act (ADA) design variances.
- Projects involving an Interchange Access Change Request (IACR).

210.2 Design Exceptions, Design Variances, and ADA Design Variances

The following procedures and guidelines are the NMDOT's policy for requesting design exceptions, design variances, and ADA design variances. The procedures were developed in partnership by the Federal Highway Administration (FHWA) and the United States Department of Transportation (USDOT). NMDOT's policy conforms to the minimum requirements set forth by FHWA regulations for design exceptions.

210.2.1 Design Criteria Authority

The [New Mexico State Statutes Section 41-4-11](#) describes overall design immunity relating to highways and streets and deviations from standard geometric design practices.

FHWA's regulations for design exceptions are located in [23 Code of Federal Regulations \(CFR\) Part 625.3](#). This section defines

exceptions as, “designs which do not conform to the minimum criteria as set forth in the standards, policies, and standard specifications adopted in [23 CFR Part 625](#).”

The minimum standards, policies, and standard specifications are set forth in [23 CFR Parts 625.3 and 625.4](#). The geometric design standards for projects on the National Highway System (NHS), as established in 23 CFR Part 625.3 and 23 Part CFR 625.4, are the American Association of State Highway and Transportation Officials’ (AASHTO) A Policy on Geometric Design of Highways and Streets (Green Book) and [A Policy on Design Standards Interstate System](#). NMDOT has accepted the Green Book as its standard for geometric design. NMDOT has also accepted the AASHTO Policy on Design Standards Interstate System as a supplement to the Green Book standards for the Interstate Highway System.

The United States Access Board, a federal agency committed to accessible design, has provided the [Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way \(PROWAG\)](#). This document will be used to identify and mitigate ADA design variances.

210.2.2 Design Exception Criteria

Design exceptions were first identified in FHWA Technical Advisory 5040.21 dated April 4, 1983, which established 11 factors to be addressed on Resurfacing, Restoration, and Rehabilitation (3R) projects.

On April 15, 1985 the design exception process was updated with an implementation memorandum titled “[Implementation of New Design Criteria for Federal-Aid Projects](#),” which established 13 controlling criteria. The design exception process was further explained in [23 CFR Part 625, Federal-Aid Policy Guide, dated March 1, 2005, Transmittal 33](#). Most recently, the FHWA published their revisions to controlling criteria for design. Their memorandum titled “[Revisions to the Controlling Criteria for Design and Documentation for Design Exceptions](#)” was issued on May 5, 2016. Those revisions eliminated three criteria, renamed others, and focused the application of most criteria on high speed roadways.

The following ten controlling criteria require formal approval from the FHWA, for high speed, NHS facilities, which include interstates, freeways, and roadways with a design speed greater than 50 miles per hour (mph):

1. Design speed
2. Lane width
3. Shoulder width
4. Horizontal curve radius
5. Superelevation rate
6. Stopping sight distance
7. Maximum grade
8. Cross slopes
9. Vertical clearance
10. Design loading structural capacity

Two controlling criteria from the list above, design speed and design loading structural capacity, require formal approval from the FHWA for low speed NHS facilities with a design speed less than 50 mph. These two items warrant further explanation and discussion, and are discussed below.

Design speed - Design speed is a concept by which coordination of the various physical design elements is achieved. Design speed has a significant effect on the operation and safety of a highway because it is used to determine various individual design elements with specific dimensions such as stopping sight distance and horizontal curvature. Therefore, a design speed exception is not necessarily an exception to individual physical design elements and accordingly must be justified on that basis.

Design exceptions for design speed should be extremely rare and exception documentation shall provide the following information:

1. Length of the section with reduced design speed compared to the overall project length.
2. Measures used in transitions to adjacent sections with higher or lower design or operating speeds.

Design loading structural capacity - Design exceptions for design loading structural capacity should be rare and exception documentation shall include:

1. Verification of safe load-carrying capacity (load rating) for all state unrestricted legal load or routine permit loads.
2. In the case of bridges and tunnels on the interstate, verification of safe load-carrying capacity (load rating) of all federal legal loads. Only under the most extreme circumstances will a design exception be approved on interstate highways.

210.2.3 Design Variance Criteria

210.2.3.1 Interstates and High Speed NHS Facilities

A design variance is a variation from a design parameter other than the 10 controlling criteria discussed above, or any deviation from a New Mexico State Statute, a NMDOT design standard or manual, NMDOT policy, the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), or Roadside Design Guide criteria, etc.

210.2.3.2 Low Speed NHS and Non-NHS Facilities

A design variance is a variation from a New Mexico State Statute, a NMDOT design standard or manual, NMDOT policy, the MUTCD, Roadside Design Guide criteria, or a deviation from any of the eight controlling criteria listed below:

1. Lane width
2. Shoulder width
3. Horizontal curve radius
4. Superelevation rate
5. Stopping sight distance
6. Maximum grade
7. Cross slopes
8. Vertical clearance

210.2.4 Evaluating and Analyzing Project Criteria

Design exceptions, design variances, and ADA design variances should be requested as early as possible in the project development

process, desirably as part of the Scoping Report. This will minimize the likelihood of an extensive redesign effort should any part of the request be denied. Late requests for design exceptions, design variances, and ADA design variances received by the final approving official could result in substantial delay to the project letting. Some project conditions that may warrant design exceptions, design variances, or ADA design variances could be the preservation of historic or scenic values of the location, society impacts, acquisition of right-of-way, cost of construction, mitigation of environmental impacts, or providing accessible rights-of-way. The careful application of the flexibility provided in the design standards and policies; appropriate use of design exceptions, design variances, or ADA design variances; and coordination with transportation enhancement activities can result in projects that provide safe and efficient transportation facilities and are sensitive and responsive to all users and scenic and historic resources. FHWA encourages state agencies to work together with stakeholders to develop context sensitive solutions that enhance communities and provide multiple transportation options. The Fixing America's Surface Transportation (FAST) Act of 2015 includes new provisions encouraging design flexibility and the appropriate use of design exceptions and variances and can assist in achieving such flexibility.

It is important to consider the impact of the design exception, design variance, or ADA design variance to the safety and operations of the facility as well as its consistency and compatibility to adjacent sections of roadway. The following are some of the factors that should be considered and documented:

1. Functional classification of the road.
2. Amount and character of traffic (e.g., average annual daily traffic, percent heavy commercial).
3. Type of project (e.g., 3R, new construction).
4. Crash history - What are the prevalent crash types and how do they relate to the existing conditions and proposed design features?

5. The cost effectiveness of the exception compared to minimum standards. Estimate the cost of the exception and the cost of meeting minimum design requirements.
6. Project constraints and justification for the exception, variance, or ADA design variance.

Depending on the nature of the variation from the design standard, it may not be necessary to look at all of the above factors. However, before a design exception, design variance, or ADA design variance is approved there should be compelling reasons why the adopted standard or criteria should not be used.

The ADA design variance will be used where existing physical constraints make it impracticable to construct pedestrian facilities to fully meet current NMDOT standards, as determined by using sound engineering. The ADA design variance must be submitted and approved before construction activities begin in order to document that access has been designed to the maximum extent practicable within the scope of the project.

210.2.5 Documentation of Design Exceptions, Variances, and ADA Design Variances

All design exceptions, design variances, and ADA design variances require submittal for approval and should include sufficient details and/or drawings to describe the project. In addition, the submittal should include the ADA curb ramp documentation form (where applicable), photos of the existing condition, narrative of conditions warranting a design exception and/or variance, and sufficient information to answer the following questions that will serve as the justification:

1. What is the design criteria that will not be met?
 - State the specific AASHTO or NMDOT standard or policy.
 - To what degree is the standard being reduced?
2. What are the characteristics of the existing and proposed roadway (functional classification, terrain, average annual daily traffic, percentage of trucks, posted speed, crash data, etc.)?
3. What alternatives were considered?

4. What will be the effect on safety and operations, right-of-way, the community, environment, cost, and usability by all transportation modes? (Provide data, research, crash data analysis, or the basis of professional judgment).
5. Will the exception or variance affect other standards?
6. What measures are provided to mitigate the deviation?
7. How does the exception or variance relate to adjacent sections of the roadway? Is consistency provided?
8. Has there been historical evidence that would indicate that an exception or variance would sacrifice the improvements established by a minimum design standard (e.g., flooding, irregular maintenance, etc.).
9. What is the value realized by applying an exception or variance (e.g., resource impacts/benefits, social impacts/ benefits, cost impact/benefits, timeline impact/ benefits, etc.)?

210.2.6 Review and Approval

210.2.6.1 Federal Oversight Projects (Interstate Projects) Projects in Design Phase

Federal oversight projects are limited to projects on the Interstate Highway System. The request must be initiated by the responsible professional engineer (e.g., Project Development Engineer (PDE), consultant, or Technical Engineer for the various discipline components of a project). Prior to submitting the request for approval the PDE shall coordinate with the responsible Engineering Support Manager (Traffic, Bridge, Drainage) at the General Office and receive concurrence by the Regional Design Manager. These requests require FHWA approval and should be formally transmitted to the New Mexico Division of the Federal Highway Administration (FHWA-NM) Administrator (or designee) by letter after receiving approval from the Chief Engineer and concurrence from the Construction Liaison Engineer (CLE).

Projects in Construction Phase

In cases where the need for a design exception, design variance, or ADA design variance arises from changes in the field during construction, the District Construction Section must appoint a

Responsible Engineer to initiate the documentation outlined in this chapter. In cases where construction is proposed to deviate from engineering design standards, the Responsible Engineer shall coordinate with the appropriate Engineering Support Manager (Traffic, Bridge, Drainage) at the General Office prior to submitting the request for approval. The Responsible Engineer will sign the request and concurrence is required by the PDE or Engineer of Record, Regional Design Manager, and the CLE. These requests require FHWA approval and should be formally transmitted to the FHWA-NM Division Administrator (or designee) by letter after receiving approval from the State Construction Engineer and concurrence from the CLE. The Chief Engineer shall be copied on the approved exception.

210.2.6.2 Federal Oversight Delegated Projects (NHS Highways)

Projects in Design Phase

For non-interstate projects on the NHS, FHWA approval has been delegated to the NMDOT per the [NMDOT/FHWA Stewardship and Oversight Agreement](#). Design exceptions, design variances, and ADA design variances approved by the NMDOT for FHWA are subject to FHWA oversight through periodic process reviews. Concurrence is required by the responsible Regional Design Manager with approval granted by the Chief Engineer and concurrence by the CLE

Projects in Construction Phase

In cases where the need for a design exception, design variance, or ADA design variance arises from changes in the field during construction, the District Construction Section must appoint a Responsible Engineer to initiate the documentation outlined in this chapter. In cases where construction is proposed to deviate from engineering design standards, the Responsible Engineer shall coordinate with the appropriate Engineering Support Manager (Traffic, Bridge, Drainage) at the General Office prior to submitting the request for approval. The Responsible Engineer will sign the request and concurrence is required by the PDE, Regional Design Manager, and the CLE. Approval must be granted by the State Construction Engineer and a copy of the approval shall be sent to the Chief Engineer.

210.2.6.3 State Oversight Projects (Non-NHS Highways) Projects in Design Phase

These requests require NMDOT approval and must be formally initiated by the responsible professional engineer (e.g., PDE, consultant, or Technical Engineer for the various discipline components of a project). The PDE shall coordinate with the responsible Engineering Support Manager (Traffic, Bridge, Drainage) at the General Office prior to submitting the request for approval. Concurrence is required by the Regional Design Manager with approval granted by the Chief Engineer. CLE concurrence will be required if federal funds are used.

Projects in Construction Phase

In cases where the need for a design exception, design variance, or ADA design variance arises from changes in the field during construction, the District Construction Section must appoint a Responsible Engineer to initiate the documentation outlined in this chapter. These requests require NMDOT approval and must be formally transmitted to the State Construction Engineer. The Responsible Engineer will sign the request and concurrence is required by the PDE, Regional Design Manager, and the CLE, with approval granted by the State Construction Engineer. The Chief Engineer shall be copied on the approved exception or variance.

210.2.6.4 Non-NHS, 100 Percent State Funded (District Betterment) Projects

For District betterment projects that are 100 percent state funded, design exceptions will be required when:

- A project occurs on the interstate and the pavement cross slopes are less than 1.5 percent.
- There is a conversion of a shoulder to a driving lane.
- There is a lane width reduction (for roadways with a design speed lower than 50 mph a design variance will be required in lieu of a design exception).

The scope of these projects is to maintain, preserve, or extend the service life of an existing roadway, pavement, structure, or drainage facility. Such projects are not intended to update the geometrics to current standards; however, NMDOT ADA standards, AASHTO

standards, and other NMDOT standards that were in effect at the time of the original construction will apply. This shall be noted in the plans and recorded as, "This section of highway was originally built under (route, section) using design standards as per the (date), AASHTO publication titled (name of publication), or NMDOT publication entitled (name of publication)." While this information may be difficult to locate, a good faith effort to obtain the as-built plans for the roadway section should be conducted and that information should be included in the plans.

Current NMDOT ADA standards/PROWAG must be followed and features updated as part of the scope of work or documented and added to the District Transition Plan that will address upgrading to current standards at a later date. Any substandard features created, ADA non-compliance, or existing features made worse must be covered by an ADA design variance as such actions change the project as built.

The following activities are considered alterations by the Department of Justice and FHWA and will require ADA compliance:

- Addition of a new layer of asphalt
- Cape seals
- Hot in-place recycling
- Microsurfacing/thin-lift overlay
- Mill and fill/mill and overlay
- New construction
- Open-graded surface course
- Rehabilitation
- Reconstruction

The following activities are considered maintenance by the Department of Justice and FHWA and will not require ADA compliance:

- Chip seals
- Crack filling and sealing
- Diamond grinding

- Dowel bar retrofit
- Fog seals
- Joint crack seals
- Joint repairs
- Pavement patching
- Scrub sealing
- Slurry seals
- Spot high-friction treatments
- Surface sealing
- Guardrail installation
- Spot drainage structure extension
- Curb and gutter repair

210.2.7 Repository and Follow-up Requirements

210.2.7.1 Record Keeping

The project files must include information for all approved design exceptions, design variances, and ADA design variances.

Additionally, a central filing system shall be maintained containing all design exceptions, design variances, and ADA design variances at each Regional Design Center and in the Office of Infrastructure (Chief Engineer). FHWA-NM maintains its own file on design exceptions; therefore, copies of NMDOT-approved design exceptions, variances, and ADA design variances on state oversight projects should be forwarded to the FHWA-NM.

210.2.7.2 Follow-up Requirements

The project authorization process must acknowledge if a design exception, variance, or ADA design variance is applicable and approved accordingly for every project, or otherwise certify to FHWA that no design exceptions, design variances, or ADA variances exist.

STRAHNET

The Strategic Highway Network (STRAHNET) is a system of highways that provides defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peacetime and wartime.

For projects on the STRAHNET System, exceptions to the minimum 16-foot vertical clearance must be coordinated with the Surface Distribution and Deployment Command Transportation Engineering Agency (SDDCTEA) prior to approval of a design exception. The office approving the design exception, whether it is the FHWA-NM or NMDOT under [23 USC 106\(b\)](#), should notify the SDDCTEA directly. For projects on the Interstate Highway System but not on the STRAHNET System, prior coordination is not required, but FHWA policy provides that SDDCTEA be notified of vertical clearance exceptions. The contact information is:

- Director, SDDCTEA, Attn: SDTE-SA, 720 Thimble Shoals Blvd., Suite 130, Newport News, VA 23606-4537, telephone: 757.599.1117 or 1.800.722.0727.

210.2.8 Documentation

The following documents, located at the end of this chapter, provide the accepted format of documentation for design exceptions, design variances, and ADA design variances, including:

- Design exception for interstate highways
- Design exception for non-interstate, NHS highways
- Design variance
- ADA design variance

The required documentation for design exceptions, variances, and ADA variances are provided as attachments at the end of this chapter.

210.3 Interchange Access Change Request (IACR) Procedures

This section addresses the process of submitting an IACR to the FHWA. It is in the national interest to maintain the Interstate Highway System at the highest level of service possible in terms of safety and mobility. In order to achieve this goal, federal laws and regulations have established policies regarding interstate access

requests. This guidance was developed to establish procedures for processing requests by NMDOT for new or revised interstate accesses that are consistent and reasonable and that comply with federal requirements.

The request to add a new interstate access point or modify an existing interstate access point, including locked gate access, shall be sponsored by the NMDOT. Such a request for approval shall, unless otherwise agreed upon, be in the form of an IACR. An IACR is a report that includes the information described in this guidance.

An IACR for approval to add or modify access points to an existing interstate interchange may be a separate document or included as part of a Phase IA or Phase IB report, as defined in the NMDOT [Location Study Procedures](#), provided that each of the eight policy points, discussed in Section 210.3.9, is addressed.

Gated access requests for construction or other purposes should be referred to the State Access Control Committee and FHWA Field Operations (Area) Engineer and shall be via locked gates only.

210.3.1 Legislation and Regulations

[23 USC 111](#) provides that all agreements between the Secretary of the USDOT and state highway departments for the construction of projects on the Interstate Highway System shall contain a clause providing that the state will not add any points of access to, or exit from, the project in addition to those approved by the Secretary.

The Secretary has delegated the authority to administer [23 USC 111](#) to the FHWA pursuant to [49 CFR Part 1.48\(b\)\(10\)](#). The FHWA-NM is further delegated the responsibility of administering the provision of 23 USC 111 in New Mexico.

A formal policy statement including guidance for justifying and documenting the need for additional or modified access to the existing sections of the Interstate Highway System was published in the [Federal Register on February 11, 1998](#) (Volume 63, Number 28, pages 7045-7047). That policy statement lists eight points that must be addressed before interstate access requests can be approved.

Revisions to the Policy Statement were published in the [Federal Register on August 27, 2009](#) (Volume 74, Number 165, Pages 43743-

43746). These changes were made to clarify the operational and safety analysis and assessment of impacts resulting from the changes in access and to update language at various locations to federal laws, regulations, and FHWA policies.

In addition to the legislation described above, the following legislation and regulations apply to IACRs.

- [23 CFR Part 1.23](#), Rights-of-way.
- [23 CFR Part 625](#), Design Standard for Highways.
- [23 CFR Part 710, Subpart D, Real Property Management](#).
- [23 CFR Part 771](#), Environmental Impact and Related Procedures.
- [23 CFR Part 625, Non-regulatory Supplement](#), Application of Design Standards, Uniform Federal Accessibility Standards, and Bridges, March 1, 2005.
- [23 CFR Part 752, Non-regulatory Supplement, Transmittal 6](#), Vending Machines in Interstate Rest Areas and Abandonment of Interstate Rest Areas, October 5, 1992.
- [23 CFR Part 630c, Non-Regulatory Supplement, Transmittal 23](#), June 17, 1998.
- [A Policy on Design Standard Interstate System](#), AASHTO, 2005.
- FHWA Area Engineers Manual.
- FHWA Policy Memorandum - [Coordination of Vertical Clearance Design Exceptions on the Interstate System](#), FHWA, April 15, 2009.
- [Interstate System Access Information Guide](#), FHWA, August 2010.
- NMDOT [IDD-2012-01, Interstate Access Change Request](#).
- [NMDOT/FHWA Stewardship and Oversight Agreement](#).
- NMDOT [Standard Specifications for Highway and Bridge Construction](#), current edition.

210.3.2 Applicability of FHWA Policy

In accordance with federal laws and regulations, FHWA must approve the following:

- All requests for new interstate access
- All requests for a revised interstate access
- All requests to add a new interchange to the Interstate Highway System
- All requests to add or modify access points to an existing interchange including ramp/frontage road junctions

Maintenance activities that do not change existing geometrics or operational features of the roadway do not require formal FHWA approval; however, details regarding the maintenance activities may be provided to the FHWA for situational awareness.

The policy applies to all proposed changes to an interstate facility regardless of whether or not they are financed partly or wholly by the state, tribal government, local municipality, or private developer. Regardless of which party initiates the proposal, all requests for proposed changes in access must be submitted to FHWA by the NMDOT with a recommendation for approval.

For the purposes of applying this policy, each entrance or exit point, including locked gate access to the mainline, is considered to be an access point. For example, a diamond interchange configuration has four access points. The limits of an interchange as applied to this policy are defined as within the interstate right-of-way and within the limited access of the interchange including the entire length of all ramps and portion of the crossroad within the interstate right-of-way or 300 feet beyond the ramp terminal at the crossroad or frontage road (actual limits shall be defined by the [State Access Management Manual \(SAMM\)](#)).

210.3.3 Compliance with Federal Regulations

All FHWA approvals for additional or modified access are conditional upon compliance with applicable federal rules and regulations. Applicable design standards listed in [23 CFR Part 625.4](#) must be used and final project designs are subject to review and approval by FHWA. The FHWA approval of new or modified

access constitutes a federal action and requires that National Environmental Policy Act (NEPA) procedures be followed. NEPA approval is a condition to receiving final access approval.

Access approval is a two-step process that was developed to help the NMDOT manage risk and provide flexibility. It is intended to identify fatal flaws and to help ensure the investment in the environmental document is not wasted. The first step is a finding of operational and engineering acceptability. The second step is the final approval, which is given after the project has been deemed acceptable and all environmental requirements have been met. The level of environmental analysis required will be determined by FHWA in consultation with NMDOT. Often the two steps are done at the same time, though that is not necessary.

210.3.4 Determination of When an IACR is Required

An IACR is always required when the change in access involves a new interchange, new partial interchange, new ramps to or from frontage roads, or a new locked gate access.

Interchange reconfiguration is considered to be a change in access even though the number of actual points of access may not change; for example, replacing one of the direct ramps of a diamond interchange with a loop or changing a cloverleaf interchange into a fully directional interchange is considered revised access.

The following modifications to an existing interstate access location always require submittal of an IACR (or an analysis of the eight policy points must be included in the Phase IA or Phase IB Location Study Report).

- Major modification of an existing interchange (i.e., adding new ramps, removing ramps, changing the interchange configuration/type, completing basic movements at a partial interchange).
- Locked gate access to the interstate.
- Abandonment of ramps or interchange.
- Decreasing the length of any deceleration lane or acceleration lane on any existing ramp.

- Modifications involving frontage roads, which also serve as ramps, where the ramp is not affected.
- Modifications to existing interchanges involving access control revisions for new ramps or relocation or elimination of existing ramps.

The following modifications do not require an IACR:

- Modifications involving frontage roads that do not also serve as ramps or where the ramps are not affected.
- Modifications involving new or revised (widened, replaced, etc.) crossings over or under the interstate freeways where there are no ramps.
- Modifications to the crossroads over or under the interstate at existing interchanges where the ramps are not affected (analysis may be required to demonstrate that these ramps are not affected).
- Modifications involving ramp metering.
- The addition of an auxiliary lane between two interchange ramps.
- Increasing the length of any deceleration or acceleration lane on any existing ramp provided there is sufficient space between the next adjacent interchange(s).
- Increasing the length of existing turn lanes at the intersection with the crossroad.
- Adding lanes to an entrance or exit ramp provided there is sufficient space between the next adjacent interchange(s).

Any other modifications which do not fall into one of these categories will have to be investigated by the FHWA-NM to determine whether an IACR is needed. NMDOT will have to supply the FHWA-NM with a description of the action in enough detail so that a determination can be made.

If the FHWA-NM declares that an IACR is not required, that determination by itself constitutes FHWA-NM approval for the access modification, and this determination must be made in writing. If FHWA declares that an IACR is required, the

FHWA-NM or FHWA Headquarters (FHWA HQ) approval of the IACR constitutes FHWA approval for the access modification.

210.3.5 FHWA Internal Delegation of Authority for Approving an Access Request

Proposals for all new partial interchanges, new interchanges in the transportation management area (TMA) as defined in [23 USC 134\(k\)](#), and new or major modifications to freeway-to-freeway interchanges go to FHWA HQ in Washington, DC, after FHWA-NM review for this determination of acceptability. Because both the FHWA-NM and FHWA HQ review the document, this could be a lengthy process. Final approval is relatively quick once the operational and engineering acceptability has been determined and the environmental requirements have also been satisfied.

Exhibit 210-1 shows the types of projects that require FHWA HQ approval and those that may be approved by the FHWA-NM Division.

Exhibit 210-1 FHWA Approval Authority

| Type of Access | HQ | Division |
|---|-----------|-----------------|
| New freeway-to-freeway interchange | x | |
| Major modification of a freeway-to-freeway interchange | x | |
| New partial interchange or ramps to/from continuous frontage roads that create partial interchanges | x | |
| New freeway-to-crossroad interchange within the TMA | x | |
| New freeway-to-crossroad interchanges outside the TMA | | x |
| Modification of existing freeway-to-crossroad interchange | | x |
| Minor modifications to freeway-to-freeway interchange | | x |
| Completion of basic movements at partial interchange | | x |
| Locked gate access | | x |
| Abandonment of ramps or interchanges | | x |
| All other types of access change not explicitly requiring approval from FHWA HQ | | x |

FHWA approval constitutes a federal action, and as such, requires that NEPA procedures are followed. Compliance with NEPA procedures need not precede the determination of engineering acceptability; however, final approval of access cannot precede the completion of NEPA. Once NEPA has been completed, approval of access is granted as long as that process resulted in no changes to

the accepted concept. Access approval is done in Steps 10 and 11 of Phase III of the NM IACR Process (see Section 210.3.7).

210.3.6 Timing of an IACR Submittal

Early project development usually consists of activities identified in the [Location Study Procedures](#), which includes Phase IA and IB reports as well as Phase IC, NEPA documentation. IACR analyses should take place concurrently with Phase IB and IC activities; however, in every case the IACR, including NEPA documentation, must be approved prior to starting Final Design.

In some cases in the past, the FHWA-NM has approved Phase IA or Phase IB reports and NEPA documents without having a required or approved a formal IACR. However, in cases where these were submitted to FHWA without a complete analysis of FHWA's eight policy points, discussed in Section 210.3.9, FHWA's signature on such a Phase IA or Phase IB report or NEPA document does not constitute interstate access approval. In such cases, FHWA may request that NMDOT follow up with a formal IACR, and approval is not guaranteed.

210.3.7 New Mexico IACR Process

The FHWA has broken up the IACR process into three phases as shown in Exhibit 210-2. The phases are further broken down by steps as discussed below.

210.3.7.1 Phase I

1. A need is identified by the NMDOT or collaborating entity during the project development process.
2. The PDE involves the District Traffic Engineer, the State Traffic Engineer, and the FHWA Area Engineer in the interchange access request process and they begin researching the eight policy points requirements set forth by the FHWA (Section 210.3.9).
3. Based on information collected in step 2, the engineering team determines if it is indeed reasonable to act on the results of the study.

4. In step 4, the PDE, District Traffic Engineer, the FHWA Area Engineer, and possibly the State Traffic Engineer will cooperate on the first draft of documents that will satisfy the needs and requirements of the IACR process. These documents include the Methods and Assumptions Document (Section 210.3.8), the addressing of FHWA's eight policy points (Section 210.3.9), and other departmental approvals required to move forward (e.g., environmental documentation). This documentation must be agreed upon and signed by all affected parties.

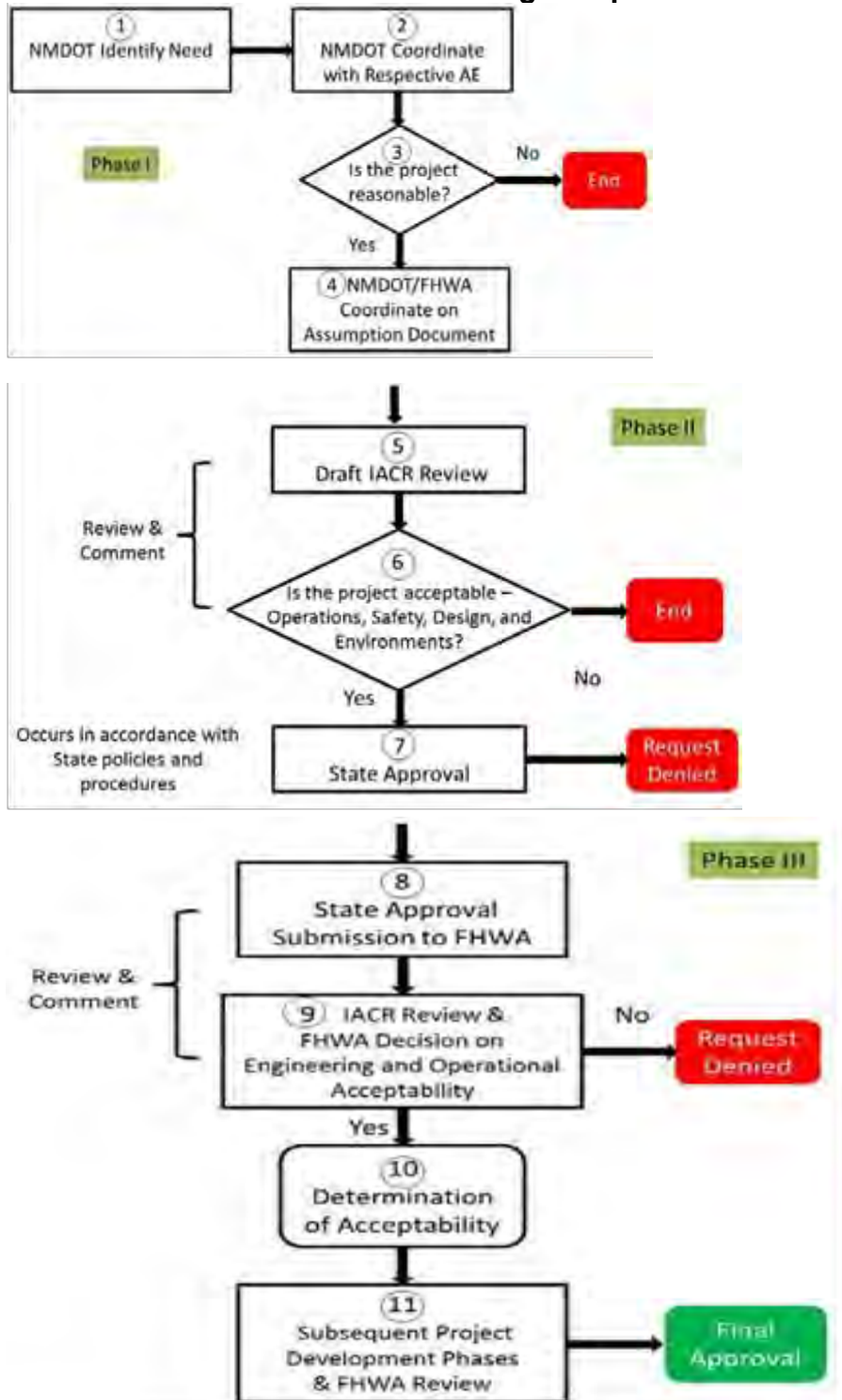
210.3.7.2 Phase II

5. Steps 5 and 6 are an iterative process and continue until all parties are satisfied with the documents.
6. Repeat as necessary. Finalize and present the documents to the State Traffic Engineer, who presents them to the Chief Engineer.
7. It is the NMDOT's responsibility (mainly the Chief Engineer) to approve and recommend the project before sending required documents (Methods and Assumptions Document, FHWA's eight policy points, and design).

210.3.7.3 Phase III

8. The Chief Engineer sends the documents to FHWA. In steps 8 and 9, all documents are reviewed and revised as needed before the final decisions can be made.
9. When all needs have been met, FHWA will issue a decision on the engineering and operational acceptability. This decision is good until either a significant change in conditions occurs or the project has not moved to construction within eight years.
10. If the project is deemed acceptable, it moves to final approval.
11. Final approval - The NEPA process must be completed before final IACR approval. Final design may begin at this point.

**Exhibit 210-2
New Mexico Interstate Access Change Request Process**



210.3.8 Methods and Assumptions Document

Requests for new access or modifications to existing access on the Interstate Highway System may require the preparation of a Methods and Assumptions Document. The determination of whether a Methods and Assumptions Document is required will be made by the District Traffic Engineer and engineering support staff with concurrence from the State Traffic Engineer and FHWA Area Engineer.

A Methods and Assumptions Document is required for any new access or modifications to existing access in urban areas. The Methods and Assumptions Document will be coordinated with the FHWA and the metropolitan or rural planning organization (MPO/RPO), as applicable.

In general, a Methods and Assumptions Document should be a stand-alone document. Referencing other documents that are not included within the text or its appendices is discouraged. The following sections describe the items that should be covered in the Methods and Assumptions Document.

210.3.8.1 Proposed Project Description

The Methods and Assumptions Document should begin with a description of the proposed project including the following:

- Project leads and proponents
- Location, including a vicinity map
- Existing conditions
- Need for the project (objectives of the proposed new access or modifications to the existing access)
- Funding status
- Schedule
- Facilities that will be affected by the project
- Existing studies
- Environmental document type

The document should be clearly written for someone who is not familiar with the project, the area, or the state.

210.3.8.2 Proposed Project Alternatives

This section includes a brief discussion of the project alternatives that will be considered to address the need for the proposed new access or access modification.

210.3.8.3 Analysis Years/Periods

Operational analysis included should be for existing conditions, opening year, any interim periods, and design year for design periods including the AM and PM peak periods and any other special periods (such as special events) if relevant.

210.3.8.4 Project and Study Areas

The study area limits are normally not identical to the project limits. The study area limit is typically larger than the project limits because traffic impact modeling requires data about land use, population, employment, and traffic volume which represent influential conditions typically beyond the project limits. After detailing the project's location and physical limits with both maps and a written description, the study area boundaries should be shown on a map. A written description of affected interchanges, intersections and streets, cities and counties with state route impacts, and local agency improvements should be provided.

This section should include a description of the Interstate Highway System and arterial street intersections that may be affected by the proposed project. Specific intersections and interchanges within the study area that will be analyzed, and the level of analysis, should be identified.

210.3.8.5 Traffic Operations Analysis

The software and version that will be used for analysis or modeling of traffic operations should be described; e.g., Highway Capacity Software (HCS) may be used for freeway sections and Synchro used for intersections. The most recently released version of any software should be used, and reasons why this cannot be done should be documented. Simulation software may be required in highly congested areas, typically saturated traffic conditions.

210.3.8.6 Travel Forecast

The regional traffic model or trend line analysis that will be used to take into account historical/projected growth rate should be identified. The methodology and process to be used in developing the forecast and the calibration/validation efforts that will be used (including benchmarks) should also be discussed. Any additional traffic counts that must be done, or calibration of the model (including HCS) to existing field conditions, should be included. It should be noted if these models are in the process of being updated at the time of publication of the Methods and Assumptions Document, and assumptions that may be required if any of the regional models are in transition must be noted. If default values in software are not used, the reason must be documented.

210.3.8.7 Safety Issues

The collision rate in the project study area, contributing factors to collisions, and locations that have been identified as collision analysis corridors and collision analysis locations must be discussed. The text should include the timeframe for which the collision data will be analyzed and deemed relevant to the report. Other safety risks to be explored during the study should be identified.

210.3.8.8 Selection of Measures of Effectiveness (MOEs)

This section outlines the metrics that will be used to demonstrate how the proposed project will accomplish its stated objectives. This will help determine whether the improvements to existing conditions are necessary. Some examples of typical MOEs are:

- Accessibility of community resources such as hospitals or special generators
- Travel time to the interstate (minutes)
- Schedule adherence of transit
- Number of phase failures on a major arterial
- Percent of demand served
- Percent of demand served in peak hour
- Percent of capacity used on signalized ramp terminals
- Maximum queue length

- Average queue length
- Travel time on network (vehicle-hours)
- Persons per vehicles served (vehicle-miles)
- Average speed and density
- Average trip length (vehicle hours per trip)
- Duration of congestion (hours at defined density, speed, or flow rate)
- Extent (segment miles congested)
- Reliability (buffer index)
- Variability in travel time
- Level of service (LOS) as defined by the Highway Capacity Manual (HCM), or other approved guidance
- Safety analysis results

This list is not all-inclusive and other MOEs may be considered.

210.3.8.9 Deviations/Justifications

This section should describe any potential known deviations that may be part of the proposed project, why they may be necessary, and the possible justifications that may be applied. Any design variances and exceptions must be included.

The signed Methods and Assumptions Document represents an endorsement by the team including the NMDOT, FHWA, and local agency, if applicable. This is a dynamic document and if it requires updates or revisions, it should be re-signed by all parties.

210.3.9 FHWA Eight Policy Point Requirements

Whether or not a Methods and Assumptions Document is required, the IACR must address each of the following eight policy point requirements listed in the [Federal Register \(Volume 74, Number 165, August 27, 2009\)](#). Typically, the best access request packages have taken each requirement and dedicated a section of the request to illustrate how that requirement is met.

210.3.9.1 Policy Point 1

FHWA Policy Point 1 states,

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 Part 625.2\(a\)](#)).

The intent of this requirement is to demonstrate that an access point is needed for regional traffic needs and not to solve local system needs or problems. The interstate facility should not be allowed to become part of the local circulation system but should be maintained as the main regional and interstate highway it was intended to be. Policy Point 1 is not intended to discourage planned local development, nor interject the FHWA into local land use policy. It is also not intended to imply automatic denials of access requests if an off-interstate alternative has geometric feasibility. This alternative must be considered to be both more reasonable and practical than the proposed access request.

In the case of adding a new interchange or new ramp(s), the IACR analysis needs to demonstrate the existing or proposed roads parallel to the interstate facility cannot accommodate the need being proposed and that the only feasible option is the new interchange or ramp(s). In this case the analysis must show the local roads performing below acceptable levels of service.

To address Policy Point 1, describe the proposed new or revised access, and establish the need for the access point by showing that:

- The current or future traffic cannot be accommodated by improvements to the existing roadway network and the existing interchanges/ramps.
- The traffic demanding the new/revised access is regional traffic (longer trips) and is not intended to solve local system needs or problems.

210.3.9.2 Policy Point 2

FHWA Policy Point 2 states,

The need being addressed by the request cannot be adequately satisfied by reasonable transportation system management (such as ramp metering, mass transit, and high occupant vehicle [HOV] facilities), geometric design, and alternative improvements to the interstate without the proposed change(s) in access ([23 CFR Part 625.2\(a\)](#)).

The intent of Policy Point 2 is to assure that all reasonable alternatives, including improvements to the existing local roads and streets in lieu of new access, have been fully considered. The IACR should contain a description of the alternatives analysis including an explanation of the design alternatives considered, (e.g., diamond interchange, single-point, directional ramps, collector-distributor roads, alternate locations, no-build, HOV, transit, park and ride lots, signal timing modifications, ramp metering, etc.) and why the proposed alternative was selected.

Policy Point 2 is not intended to require extensive and costly engineering analyses for those options that are deemed impractical. For example, there are situations where HOV, transit, and ramp metering options do not apply. Policy Point 2 also does not require the implementation of these types of improvements as prerequisites for access approval.

To address Policy Point 2:

- Answer the question: Why this design? Consider all reasonable alternatives in terms of interchange design options, location options, and transportation system management. Describe the different alternatives considered and why the selected alternative was chosen. Include the other configurations considered and if something is prohibiting the use of an alternative design (e.g., A flyover was considered but jurisdictional wetlands prohibit its construction; A loop ramp was considered but it can't handle the expected traffic demand.) Cost can play into the decision, but it is not justification for a

poor design. Criteria could be set up early based on certain measures of effectiveness, for cost to be a potential factor.

- Focus attention on considering operational and lower-cost solutions (ramp metering, mass transit, and HOV facilities, signal timing modifications, no-build) versus expensive new infrastructure. Always keep in mind the future planned improvements (ramp metering, mass transit, and HOV facilities).

210.3.9.3 Policy Point 3

FHWA Policy Point 3 states,

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 (this includes mainline lanes; existing, new, or modified ramps; ramp intersections with a 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 Parts 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 Parts 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 (23 CFR Parts 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 USC 109\(d\)](#) and 23 CFR Part 655.603(d)).

The intent of this requirement is to assure that sufficient operational and safety analyses are completed to determine the impact of the modified or new access on the operation of the Interstate Highway System.

Operational Analysis Required in an IACR

Depending on the complexity of the modifications, an IACR may require an operational analysis. The operational analysis must clearly demonstrate that there will be no negative impact to the operation of the interstate facility.

The following traffic data must be provided so that FHWA can perform an independent analysis:

- Diagrams showing the relationship to adjacent interchanges and ramps along with all lane configurations
- Distances between ramps and to adjacent interchanges
- Design speed
- Grades
- Truck percentage on the mainline, ramps, and other roads
- Applicable factors (peak hour factor, etc.)
- Traffic volumes on the mainline, ramps, and roadways for each option (including the no-build)
- Turning movement volumes at the intersections for each option (including the no-build)
- AM and PM peak hour volumes and average daily traffic (ADT)
- Current and design year volumes
- Weave section volumes and lane configurations
- Merge and diverge volumes and lane configurations, including those at adjacent interchanges

The operational impact to the mainline interstate between the proposed new or revised access and the adjacent existing interchanges on either side must be analyzed. The analysis should

extend along the mainline and include as many existing interchanges as necessary to establish the scope of the impacts. At a minimum, the analysis on the interstate mainline shall extend to the first adjacent interchange, existing or proposed, on either side of the project interchange. In some urban areas, the effects of a new interchange may be felt several miles downstream where a bottleneck occurs. If this is the case, the analysis area must be extended to include the full limits of the impacts. If there are multiple planned projects on a corridor, the corridor should be analyzed.

On the local crossroad, the analysis shall include the intersections with the ramps and, at a minimum, the first major intersection on either side of the interchange. The limits of the analyses on the existing or improved surface street system will be the extent of the system necessary to show that the surface street system can safely and adequately handle any new traffic loads resulting from the new/revised access point. The analysis area may be extended at the discretion of the District Traffic Engineer if the impacts will extend past the first adjacent intersections.

The methodology from the current HCM, or current version of the HCS shall be used to perform the engineering analyses. Other analysis tools such as CORSIM or Synchro/SimTraffic may be used to supplement the HCS analysis and may be specifically required for more complex projects at the direction of the District Traffic Engineer. The operational analysis should use traffic data based on a design year 20 years from the date when the project is scheduled to be complete and open to the traveling public. Alternate analysis tools for determining operational acceptability will need prior approval by FHWA. If other procedures are used, sufficient data compatible with the HCM must be provided to allow verification of the results using HCM procedures to the extent possible.

The engineering analysis shall include at a minimum all of the following, as applicable, unless agreed upon otherwise by FHWA:

- **Existing peak hour traffic volumes/plan view** - Include a map with ramps and interstate through lanes labeled with existing AM Peak Hour and PM Peak Hour traffic volumes.

- **Design year no-build peak hour traffic volumes/plan view** - Include a map with ramps and interstate through lanes labeled with the design year No-Build AM Peak Hour and PM Peak Hour traffic volumes.
- **Design year build peak hour traffic volumes/plan view** - Include a map with the ramps and interstate through lanes labeled with the design year build AM Peak Hour and PM Peak Hour traffic volumes.
- **Summary of operational traffic analysis** - Include, preferably, a table listing the freeway LOS, ramp LOS, and weave LOS for the corresponding existing AM and PM Peak Hours, the design year no-build AM and PM Peak Hours, and the design year build AM and PM Peak Hours for the appropriate interstate through lane sections, on-ramps, off-ramps, and weave areas.
- **Existing peak hour LOS/plan view** - Include a map with ramps, interstate through lanes, and crossroads labeled with calculated existing AM and PM Peak Hour LOS values.
- **Design year no-build peak hour LOS/plan view** - Include a map with ramps, interstate through lanes, and crossroads labeled with the calculated design year and no-build AM and PM Peak Hour LOS values.
- **Design year build peak hour LOS/plan view** - Include a map with ramps, interstate through lanes, and crossroads labeled with the calculated design year build AM and PM Peak Hour LOS values.
- **Basic freeway segments analysis** - Include an analysis of existing conditions, design year no-build conditions, and design year build conditions on basic freeway segments.
- **Ramp junction analysis** - Include a ramp junction analysis (including queue analysis) of existing, design year no-build, and design year build conditions.
- **Weave area analysis** - Include a weave area analysis of existing, design year no-build, and design year build conditions.

Depending on the complexity of the proposed interchange construction or modifications, adjacent surface street intersections may also require comparable operational analysis and the analysis

of the mid-day, peak hour condition. A copy of the raw input and output data used in the traffic analyses shall be submitted, both in hard-copy and electronic form.

If software such as CORSIM or Synchro/SimTraffic is used to supplement the HCM, the following information needs to be provided with that analysis:

- A description of the method used to calibrate the model, and documentation of the level of confidence and error tolerance that was determined for the project.
- A description of the statistical validation method used for the project.
- An explanation of what default values were changed and why.
- An explanation of the number of runs and random seeds used to develop the final model results.
- A summary of the results in graphical or tabular format.
- A copy of the electronic files.

To address Policy Point 3, the IACR shall include descriptions of all of the expected impacts to traffic operations and an assessment of how proposed improvements will safely and effectively mitigate those impacts. It should also show:

- New congestion points that would be introduced by the proposal.
- Congestion points which should be improved or eliminated, and any locations at which congestion is compounded.
- Any surface street conditions which would affect traffic entering or exiting the interstate.

The results should demonstrate that traffic operations will be adequate system-wide, not just at the proposed access point. This should be presented for existing, year of implementation, and design year, and account for future traffic projections.

The minimum LOS standards for proposed access changes on the Interstate Highway System are those specified in Section 15 (Table 15.C-1) of the [SAMM](#). These standards specify LOS C for all interstates based on peak hour conditions. The only exception is for

large urban interstates in areas with populations exceeding 250,000, where a LOS D will be considered acceptable. (Note: This exception is granted with documentation and the exception is not referenced in the SAMM.)

For situations where the base (non-improved) condition is below the minimum standards for either the project implementation year or the project design year, no further degradation in performance is acceptable. For these situations, microsimulation analysis shall be performed to establish the operating speeds for the existing condition, the base condition in the implementation year and design years, and the improved condition in both the implementation and design years.

A significant adverse impact, as it relates to the operational performance, will vary depending on the project location and operating conditions. While impacts are typically assessed for the interstate mainline and ramps, the specific roadway elements to be evaluated will have been defined in the Methods and Assumptions Document (Section 210.3.4). A proposed improvement will be considered to have an adverse impact under the following conditions:

- If the base (non-improved) condition LOS for either the project implementation year or the project design year is at or above the minimum LOS standard (as defined above), a significant impact occurs when the proposed project causes a LOS below the minimum level of service standard.
- If the base (non-improved) condition LOS for either the project implementation year or the project design year is below the minimum LOS standard, but not at LOS F, a significant adverse impact occurs when the proposed project causes the LOS to degrade to below the base condition as determined by an increase in delay as defined by the HCM analysis procedures. The District Traffic Engineer has the discretion to require a microsimulation model for any situation where the base condition is below the minimum LOS standard.
- If the base (non-improved) condition LOS for either the project implementation year or the project design year is at LOS F, a

letter-grade LOS is not considered a valid measure of effectiveness. A microsimulation model shall be completed to establish operational speed of the interstate mainline. A significant impact occurs when the operational speed, as calculated by the microsimulation model, falls below 40 mph on the interstate mainline and 25 mph on the local or crossroad during peak conditions, and more than 10 mph below the 85th percentile speed during non-peak conditions on both the interstate mainline and local or crossroad.

Note that showing a reasonable LOS for the freeway does not guarantee acceptability of the proposal.

Safety Analysis Required in an IACR

The safety analysis must adequately demonstrate that there will be no negative impact to the safety of the interstate facility. The request must show that the proposed access will be designed to meet or exceed interstate design criteria for safe operations. In locations with known geometric and safety problems, proposals for revised access should attempt to correct these problems as part of the overall solution.

The level of complexity of the project and the existing site conditions and crash history will determine the level of effort required in the safety analysis. At a minimum it should include an assessment of existing conditions as they relate to the safety of the facility, including geometric deficiencies, sight distance concerns, hazards in the clear zones, etc., and a crash analysis.

The crash analysis should at a minimum include:

- A review of at least the most recent three years of crash data available.
- Crash data broken down by type, severity, time of day, weather, light conditions, and location, in order to determine any patterns.
- A crash diagram and review of the officer's narrative (if available) to help identify potential contributing factors of the crash.

- Calculation of crash rates and severity factors for each segment of the study area where the traffic volumes or roadway characteristics are different.
- Comparison of crash rates and severity factors to the rates for similar facilities to determine if they are significantly higher, potentially indicating a safety issue.

The safety analysis should use the crash analysis and existing conditions assessment together to identify potential contributing factors to crashes. If the analysis identifies a significant safety hazard or condition, the discussion should also include a discussion on how the proposed improvements will mitigate those conditions. This should include countermeasures, crash reduction factors, and cost/benefit analysis to show how the improvements are expected to mitigate existing conditions.

Safety discussions relying solely on the number of crashes occurring in the study area or presentation of raw crash data will not be considered acceptable.

210.3.9.4 Policy Point 4

FHWA Policy Point 4 states,

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, etc.) or park and ride lots. The proposed access will be designed to meet or exceed current standards ([23 CFR Parts 625.2\(a\)](#), [625.4\(a\)\(2\)](#), and [655.603\(d\)](#)).

The intent of this requirement is that except in the most extreme circumstances, all interchanges should provide for all basic movements onto a public road. Policy Point 4 is not intended to preclude or discourage local economic enhancement projects, but the proposed access cannot connect to a private road. The proposed improvements shall also be designed to meet or exceed the current design standards as established by FHWA and NMDOT. Partial interchanges usually have undesirable operational characteristics.

If the interchange is being built in phases where there will be a time when a less than full interchange is provided, the phasing and operations should be described in detail. Less than full interchanges are not automatically precluded, but there should be a logical reason for their construction or retention.

If circumstances exist where a partial interchange is considered appropriate as an interim design, then commitments should be made for providing the ultimate future design, such as purchasing necessary right-of-way, during the initial project phase. Special purpose access for HOVs, transit vehicles, or park and ride lots should be treated as special cases and considered on a case-by-case basis.

To address Policy Point 4, demonstrate that the proposed access connects to a public road and will provide all traffic movements. If less than a full interchange is being requested, justification must be provided. It must be shown why the missing traffic movements are not being provided and are not required. The intent is to preclude adding access exclusively serving a narrow, private interest.

210.3.9.5 Policy Point 5

FHWA Policy Point 5 states,

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 management areas, as appropriate, and as specified in [23 CFR Part 450](#) and the transportation conformity requirements of [40 CFR Parts 51](#) and [93](#).

The intent of this requirement is that the request must include a discussion as to how the current proposal fits into the transportation plan for the surrounding area and its implications to air quality conformity, and to ensure that the project is included in

the STIP or TIP. Although requests for engineering and operational approval of access may be made prior to being included in local and/or regional transportation plans, final approval cannot be given if the project is not included in the appropriate plan. Such coordination should be made as part of the normal project development process. Policy Point 5 is also intended to complement the federal regulations regarding air quality conformance.

The proposed new/revised access will affect adjacent land use and vice versa with respect to traffic demand generated. Therefore, the request, including transportation management strategies incorporated, shall reference and demonstrate the consistency of the proposed access with land use plans, zoning controls and transportation ordinances, and regional and local transportation plans that include the proposal.

Note that the inclusion of a project involving new interstate access in a regional plan is not a guarantee of FHWA acceptance of the access, and that it is not necessary for the current plan to include an access project before a proposal can be developed. It must be in the appropriate plan before final approval is granted.

210.3.9.6 Policy Point 6

FHWA Policy Point 6 states,

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 USC 109\(d\)](#), [23 CFR Parts 625.2\(a\)](#), [655.603\(d\)](#), and [771.111\(f\)](#)).

The intent of this requirement is to cause sufficient review and coordination so as not to have piece-meal consideration of added access and to avoid future conflict as much as possible with other proposed access points. It is usually best to consider all proposed changes in access for an area at the same time. If a new or revised interchange is being proposed and another new or revised adjacent interchange is being planned and programmed, then both

interchanges should be analyzed together. A comprehensive corridor or network study shall be included in the operational analysis to ensure all changes and impacts are identified in the context of the larger transportation system. The expectation here is that any proposal is considered in view of currently known plans for transportation facilities and/or land use planning and is especially important when several new interchanges are anticipated. In essence, Policy Point 6 is intended to assess and account for the cumulative effects of added access throughout any affected corridor. Conflicts with other proposed changes in access or corridor improvements will be discovered and evaluated at this time. To reinforce the need for long range planning for a region's interstate system, the agency needs to be proactive in issues of added or changed access.

To address Policy Point 6, it should be shown how the proposed access has been part of a comprehensive interstate network study and is consistent with it. The request must demonstrate that the proposed new/revised access is compatible with other feasible new access points. Note that approving one interstate access that is part of a master plan does not guarantee that all other proposed access points throughout the area or corridor will also be approved.

210.3.9.7 Policy Point 7

FHWA Policy Point 7 states,

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 the development and any proposed transportation system improvements ([23 CFR Parts 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 Parts 625.2\(a\)](#) and [655.603\(d\)](#)).

The intent of this requirement is to assure that highway facilities are developed in an orderly and coordinated manner to serve the public. Therefore, when a private development is clearly the driving force behind the need for access, it is only reasonable that the NMDOT and the developer work closely together in order to develop the access to achieve mutual benefits with minimal adverse impact on the interstate travelers. Staged construction should be considered where extensive private development is not expected to be completed for several years. As a condition of approval, the developer may be required to have certain parts of the local circulation system ready before ramps can be constructed or opened to traffic. Coordination and cooperation is essential where different entities (NMDOT, developers, local governments, etc.) are each responsible for a portion of the proposed project. The IACR must show that an appropriate level of coordination has taken place between the affected parties (government and private) and shall also clearly identify all commitments agreed upon by the affected parties.

To address Policy Point 7, show that those proposed new/revised access points driven by private development include commitments to complete the non-interchange improvements that are necessary for the interchange to work as proposed. There should be mutual benefits for both the NMDOT and the developer in this case. Note that commitments from private sources to fund these improvements are not used as justification to automatically grant approval or to assume there is sufficient coordination between parties.

210.3.9.8 Policy Point 8

FHWA Policy Point 8 states,

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 Part 771.111](#)).

The intent of this requirement is to confirm and report information relative to the status of the planning and NEPA processes in regard to the access request. Final approval of an IACR is contingent upon

completion of the NEPA process. Also, the development of final plans, right-of-way acquisition, and physical construction may be performed only after approval of the environmental document.

To address Policy Point 8, explain the status of the environmental processing, including the type of environmental document and when it was signed. If it has not yet been signed, briefly describe the status and schedule of the document along with its anticipated completion.

210.3.9.9 Attachments

Required attachments for the document addressing the Eight Policy Points are:

- Layout of interchange (existing and proposed)
- Layout of interchange showing LOS and traffic volumes
- HCS data output/or output from software used for analysis for policy point

210.3.10 General Information Required in an IACR

FHWA policy states that all requests for new or revised access must include sufficient supporting information to allow FHWA to independently evaluate the request and ensure that all pertinent factors and alternatives have been appropriately considered. The list below contains the information that is typically required in an IACR. Where the information has been provided as part of a response to one of the eight policy points, this should be stated and the reader should be directed to the appropriate location in the IACR package.

- Signature page (to include the local agency if applicable, District Engineer, Chief Engineer, and FHWA Division Administrator).
- Executive summary.
- Purpose and need for the new or modified access.
- A clear description of the location and type of proposed or modified access. Maps, schematic diagrams, or functional preliminary design plans should be included as needed to clearly describe the proposal. Drawings and plans should include, as applicable, the project limits and footprint, adjacent

interchanges, frontage roads, proposed interchange configuration, typical sections, ramps to be added or removed, ramp geometry and grades, acceleration and deceleration lane lengths, taper lengths, auxiliary lane lengths, and adjacent collector-distributor roads. A large-scale layout of the project on an aerial photograph is helpful in reviewing the request.

- Current and design year projections for the interchange, ramps, and ramp junctures as well as projections for adjacent crossroad intersections. LOS and capacity analyses shall be included as well as schematic drawings showing current and design year ADT and design hourly volumes (DHV) for the mainline, ramps, crossroads, and intersection turning movements. Traffic generated from anticipated changes to land use in the immediate area of the interchange, whether expected as a result of the improvements or regardless of improvements, must be accounted for.
- Any background or supporting information that further explains the basis for the proposal (e.g., new highway proposed, planned private developments, political support, etc.).
- Known issues of concern or controversy (e.g., environmental issues, public opposition, known contamination sites, etc.).
- Estimated costs of the project, proposed funding sources (e.g., private development, local funds, state or federal-aid funds), and implementation schedule.
- Relationship and distance of the interchange to adjacent interchanges and the ability to provide proper weaving distance.
- Conceptual signing plan with significant level of detail to show the location, type, and preliminary legend of signs to be installed with each alternative analyzed. The intent is to demonstrate, at least on a conceptual basis, that all required regulatory, warning, and guide signs can be placed at the appropriate location and spacing to ensure that, based on MUTCD guidance, they can be read and interpreted at the design speed and that enough space exists between interchanges to place necessary guide signs.

- Any necessary design exceptions and variances from currently adopted AASHTO, FHWA, and/or NMDOT design standards.
- Existing and proposed limits of access control.
- Required right-of-way.
- Existing and additional proposed traffic signalization, if applicable.

210.3.11 Locked Gate Access

New Mexico interstate highways have an unusually large number of locked gate accesses to the interstate from private lands. FHWA-NM assumes that all landowners were fully compensated for all impacts, past, present, and future, at the time the Interstate Highway System was constructed. Permanent improvements to existing locked gate access points that could be seen as facilitating any increase in future traffic levels will generally not be approved except when safety to the traveling public is an overriding concern. In these instances, a full response to Policy Point 8 discussed in Section 210.3.9.8 is required. At a minimum, the IACR shall include an area-wide map or aerial photo showing all private property boundaries (all sides of the property), nearby public and private roadways and interchanges, and horizontal and vertical alignment data for the freeway or applicable crossroad.

Safety to the traveling public is a paramount concern of the FHWA. There is a concern with past failures to ensure that locked gate access remains locked and establishing a precedent where other previously compensated private owners along a stretch of interstate may want equal improvements at other locked gate access points.

210.3.11.1 Temporary Locked Gate Access

The NMDOT Access Control Committee and District Engineer may approve improvements to existing locked gate accesses or new locked gate accesses for temporary purposes such as highway construction or maintenance. However, when the temporary need expires, improvements inside the interstate right-of-way must be removed, the temporary new locked gates shall be fully removed, and the adjacent fence and right-of-way shall be restored to their original condition.

Gated access requests for construction or other purposes should be referred to the State Access Control Committee and the FHWA Area Engineer and shall be via locked gates only.

210.3.12 Role of the NMDOT Access Control Committee

NMDOT has established the Access Control Committee and the [SAMM](#) to facilitate management of access to and from the State Highway System. That manual is based on rules promulgated in the New Mexico Administrative Code and are identified as [18.31.6 NMAC](#).

Modification of interstate access typically involves access breaks or relocation of existing access control lines. The NMDOT Access Control Committee can approve breaks or relocations of access control lines on interstate facilities; however, this process occurs after IACR approval has been determined and is contingent on IACR approval.

210 Special Documentation Procedures

Attachment A – Design Exception

(Interstate Highways)

This form to be used for Federal Oversight Projects on Interstate Highways in the either the Design or Construction Phase



Division Administrator
 FHWA, New Mexico Division
 4001 Office Court Drive, Suite 801
 Santa Fe, New Mexico 87507

Date

Subject: Design Exception (Interstate)

| | |
|-----------------|--|
| Control Number: | |
| County: | |
| Termini: | |
| Description: | |

Technical Data

| | | | |
|----------------------------|--|------------------------|--|
| Functional Classification: | | Terrain: | |
| Current AADT/Year: | | Design AADT/Year: | |
| Current DHV: | | Design DHV: | |
| Current % Trucks: | | Design % Trucks: | |
| Posted Speed: | | Selected Design Speed: | |
| Crash Data (Number): | | Crash Data (Rates): | |

Design Exception

Design exception formal approval from FHWA is requested for one of the following 10 controlling criteria:

- Design Speed
- Lane Width
- Shoulder Width
- Horizontal Curve Radius
- Superelevation Rate
- Stopping Sight Distance
- Maximum Grade
- Cross Slopes
- Vertical Clearance
- Design Loading Structural Capacity

If more than one exception criteria is needed please submit each separately. However, if one exception causes another exception they must be submitted together.

Design Standard or Policy Criteria:

- 1.
- 2.

Reference or Policy:

- 1.
- 2.

Proposed Design Criteria (and Location as applicable):

Background Information:

The scope of this project is:

-
-

Justification:

1. To what degree is the standard is being reduced?
2. What will be the effect on safety and operations (provide data, research, crash data analysis or basis of professional judgment)?
3. Will the exception affect other standards?
4. What measures are provided to mitigate the deviation?

The U.S Department of Transportation, through the Federal Highway Administration, published Mitigation Strategies for Design Exceptions in July 2007. Upon referencing this publication, we propose including the following measures to aid in the protection of motorists.

5. How does the exception relate to adjacent sections of the roadway? Is consistency provided?
6. Has there been historical evidence that would indicate that an exception would sacrifice the improvements established by a minimum design standard? (i.e. flooding, irregular maintenance, etc.)
7. What is the value realized by applying an exception (i.e. resource impacts/benefits, social impacts/ benefits, cost impact/benefits, timeline impact/ benefits, etc.)?
8. Other options considered.

Requested By:

Engineer in Responsible Charge (Consultant)

Date

Project Development Engineer / Technical Support
Engineer

Date

Concurrence:

Regional Design Manager

Date

Construction Liaison Engineer

Date

Approved:

Chief Engineer

Date

FHWA

Date

Approval (comments):

210 Special Documentation Procedures

Attachment B - Design Exception

(Non-Interstate NHS Highways)

This form to be used for Federal Oversight Projects on NHS Highways in the either the Design or Construction Phase



Intra-Departmental Correspondence

Date:

TO: Chief Engineer Office of Infrastructure Divisions

1120 Cerrillos Road

Santa Fe, NM 87504

From:

Subject: Design Exception (Non-Interstate, Non-PoCI, or Non-PoDI)

| | |
|-----------------|--|
| Control Number: | |
| County: | |
| Termini: | |
| Description: | |

Technical Data

| | | | |
|----------------------------|--|------------------------|--|
| Functional Classification: | | Terrain: | |
| Current AADT/Year: | | Design AADT/Year: | |
| Current DHV: | | Design DHV: | |
| Current % Trucks: | | Design % Trucks: | |
| Posted Speed: | | Selected Design Speed: | |
| Crash Data (Number): | | Crash Data (Rates): | |

Design exception formal approval is requested for one of the following 10 controlling criteria:

- Design Speed
- Lane Width
- Shoulder Width
- Horizontal Curve Radius
- Superelevation Rate
- Stopping Sight Distance
- Maximum Grade
- Cross Slopes
- Vertical Clearance
- Design Loading Structural Capacity

If more than one exception criteria is needed please submit each separately. However, if one exception causes another exception they must be submitted together.

Design Standard or Policy Criteria

- 1.

Reference or Policy:

- 1.
- 2.

Proposed Design Criteria (and Location as applicable):

Background Information:

The scope of this project is:

-
-

This project begins at milepost...

Justification

1. What is the degree to which the standard is being reduced?
2. What will be the effect on safety and operations (provide data, research, crash data analysis or basis of professional judgment)?
3. Will the exception or variance affect other standards?
4. What measures are provided to mitigate the deviation?
5. How does the exception or variance relate to adjacent sections of the roadway? Is consistency provided?
6. Has there been historical evidence that would indicate that an exception or variance would sacrifice the improvements established by a minimum design standard? (i.e. flooding, irregular maintenance, etc.)
7. What is the value realized by applying a an exception or variance (i.e. resource impacts/benefits, social impacts/ benefits, cost impact/benefits, timeline impact/ benefits) ?
8. Other options considered.

Requested By:

Engineer in Responsible Charge (Consultant)

Date

Project Development / Technical Support
Engineer

Date

Concurrence:

Regional Design Manager

Date

Construction Liaison Engineer

Date

Approved:

Chief Engineer

Date

Approval (comments):

Copy: FHWA Division Administrator (or designee)

210 Special Documentation Procedures

Attachment C – Design Variance



Intra-Departmental Correspondence

Date:

TO: Chief Engineer Office of Infrastructure Divisions

1120 Cerrillos Road

Santa Fe, NM 87504

From:

Subject: Design Variance

| | |
|-----------------|--|
| Control Number: | |
| County: | |
| Termini: | |
| Description: | |

Technical Data

| | | | |
|----------------------------|--|------------------------|--|
| Functional Classification: | | Terrain: | |
| Current AADT/Year: | | Design AADT/Year: | |
| Current DHV: | | Design DHV: | |
| Current % Trucks: | | Design % Trucks: | |
| Posted Speed: | | Selected Design Speed: | |
| Crash Data (Number): | | Crash Data (Rates): | |

Design Variance

1.

Design Standard or Policy Criteria

2.

Reference or Policy:

1.

2.

Proposed Design Criteria (and Location as applicable):

Background Information:

The scope of this project is:

-
-
-
-

This project begins at milepost ...

Justification

1. What is the degree to which the standard is being reduced?
2. What will be the effect on safety and operations (provide data, research, crash data analysis or basis of professional judgment)?
3. Will the exception or variance affect other standards?
4. What measures are provided to mitigate the deviation?
5. How does the exception or variance relate to adjacent sections of the roadway? Is consistency provided?
6. Has there been historical evidence that would indicate that an exception or variance would sacrifice the improvements established by a minimum design standard? (i.e. flooding, irregular maintenance, etc.)
7. What is the value realized by applying a an exception or variance (i.e. resource impacts/benefits, social impacts/ benefits, cost impact/benefits, timeline impact/ benefits) ?
8. Other options considered.

Requested By:

Engineer in Responsible Charge (Consultant)

Date

Project Development / Technical Support
Engineer

Date

Concurrence:

Regional Design Manager

Date

Construction Liaison Engineer
(Not required for 100% state funded projects)

Date

Approved By:

Chief Engineer

Date

Approval (comments):

210 Special Documentation Procedures
Attachment D – ADA Design Variance



Intra-Departmental Correspondence

Date:

To: Chief Engineer Office of Infrastructure Divisions

1120 Cerrillos Road

Santa Fe, NM 87504

From:

Subject: ADA Design Variance

General Information

| | |
|------------------------------|--|
| Control Number: | |
| County: | |
| Project Termini: | |
| Specific Location: | |
| Curb Ramp / Intersection: | |
| Station and Offset: | |

Facility Type: Indicate which facility type is being investigated. If "other" is selected, please provide a description of the facility.

- Curb Ramp Accessible Pedestrian Signal Other _____
 Sidewalk Accessible Pedestrian Pushbutton

Appendix: The appendix shall contain ADA Curb Ramp Documentation form(s), photos of the existing condition, and detail layout, if applicable.

Project Information: Indicate project type. If "Other" is selected, please provide a description of the project being performed. Also, be sure to complete the remaining questions by answering "Yes" or "No" to the appropriate questions than provide the Average Daily Traffic (ADT) for the roadway the pedestrian facility crosses on the line provide.

- Resurfacing Signal Project New Construction_(Technically Impractical normally
 Reconstruction Widening Project not applicable)
 Other _____

Pedestrian Traffic Yes No

Pedestrian Trip Generators Yes No

Safety Concerns Yes No

"No Peds" Signs Yes No

Existing Crosswalk Yes No

Existing Sidewalk Yes No

Existing Pushbuttons Yes No

ADT Yes No

Justification for Technically Impracticable: *Indicate which justification for technically impracticable applies to the investigated facility. There can be more than one option. If “other” is selected provide a description of the justification. Items checked must not be included in the scope of the project.*

Exception: *In alteration work, if compliance is technically infeasible, the alteration shall provide accessibility to the maximum extent feasible. Any elements or features of the building or facility that are being altered and can be made accessible shall be made accessible within the scope of the alteration.*

Technical Impracticable: *Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature.*

- Limited Right of Way Existing Utilities Structures, Buildings, Vaults
- Historic Areas Environmental Area Grade Separation

- Other 1 _____ Other 2 _____

Investigated Design Alternatives/Why Alternative Was Not Selected: *Provide a description for the investigated design alternatives and why each alternative was not selected in order to justify why **Technically Impracticable** is being applied to the particular pedestrian facility.*

- 1.

- 2.

- 3.

Alternative Selected and Description of Which Requirements are not met: *_Provide a description of the alternative that was selected and what requirement(s) per NMDOT standards/PROWAG that the project does not meet to the **Maximum Extent Practicable**. Examples: running slope, cross slope, grade break, width, counter slope, gutter lip, flares, obstruction, protrusions, clear width, etc.*

1. Proposed Design Deviation (Maximum Extent Practicable):

2. Justification for Design Deviations:

3. Applicable NMDOT Standard(s) / PROWAG affected:

Transition Plan Elements: *Identify current physical obstacles that limit the accessibility of programs or activities to individuals with disabilities that will not be part of the current scope of the project for the District to utilize in planning and prioritizing future projects. Complete this section if the modifications of these elements will be completed through the District Transition Plan. Provide suggested modification and approximate modification cost.*

1.

2.

3.

Requested By:

Engineer in Responsible Charge (Consultant)

Date

Project Development / Technical Support
Engineer

Date

Concurrence:

NMDOT ADA Coordinator

Date

Regional Design Manager

Date

Construction Liaison Engineer

Date

Approved:

Chief Engineer

Date

Approval (comments):

Copy: FHWA Division Administrator (or Designee)

