

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DESIGN DIRECTIVE**

**DD-206**  
**GUIDANCE FOR LOCATION AND DESIGN APPROVALS**  
*June 16, 2006*

This Design Directive will give guidance and instruction on how to obtain Location and Design (L & D) Approval for Design Reports and Studies produced by the Planning and Research Division; the Engineering Division: In-House Design, Initial Engineering, and Consultant Review Sections; and all of the Districts within the Division of Highways.

Use of this Design Directive will provide a means to standardize the process required to gain these L & D Approvals throughout all development units of the Division of Highways.

Attachments

## **10. General**

Design Reports and Studies (hereinafter referred to as “Study”, or “Studies”) are engineering studies of several proposed alignments for a highway project. These Studies are produced for projects such as bridge replacements, roadway realignments, intersection improvements, turning lane additions, new roadway alignments, etc. By nature, these Studies are considered Initial Engineering by Design Directive (DD) 200, “Project Development Process”. The completion of the Study with an approved alternative alignment is considered the end of Initial Engineering by that particular DD. If a choice of alignments is given, the report will recommend one alignment as the “Preferred Alternate”, otherwise the alignment shown in the Study will be considered the “Preferred Alternate”.

However, in those cases where there is no prudent, feasible or practicable alternative that would avoid adverse impacts to, the taking of, or the constructive use of: US Government property; those environmental resources covered by process requirements of certain federal laws (Section 404 of the Clean Water Act, Section 4(f) of the Transportation Act, Section 6(f) of the Land and Water Conservation Act, Section 106 of the National Historic Preservation Act, Endangered Species Act); or individual US Army corps of Engineers’ Section 404 permit thresholds; a number of comparative alternatives may need to be carried further into the Project Development Process, or refined at a later date, to document that there is no prudent, feasible, or practicable alternative to the impacts. Projects such as these may require a more rigorous initial engineering analysis or some revisiting of the Study in later stages of the process in order to comply with the unique process requirements of the federal regulations mentioned above.

When the study is considered complete, a request for “Location & Design (L & D) Approval” will then be made. When L & D Approval is obtained, Preliminary Engineering according to DD-200 can begin, after Notice to Proceed has been given. This Design Directive will cover only the approval process for L & D requests for any study. Refer to DD-209, “Guidance for Preparation of Design Reports and Studies” for more information concerning the preparation of the Studies themselves.

## **20. Process of Approval of Location and Design (L & D) Requests**

### **20.1 Environmental Requirements**

A preliminary environmental overview is required. This work will require a representative from the Environmental Section of the Engineering Division to examine the project site in enough detail to establish any environmental constraints which would affect the location of alternative alignments in the report, and be of sufficient detail to show in the Study as known constraints to the design. The environmental process does not have to be completed fully. However, there should be enough

surface observations and literature investigations performed to determine that there are no major environmental constraints associated with the project, such as wetland involvement, cultural resources considerations (to include existing railroad and roadway facilities and bridges), permit requirements, utility relocations, known endangered species, known hazardous waste/storage tank sites, etc. so there are no major constraints that come up when the project enters the Preliminary Engineering phase that would require the project to go through the process of developing and approving a Design Study again, thus delaying the project or requiring a change in the preferred alignment.

It is desired that the environmental process be completed for projects which fall under the Categorical Exclusion process to have this document completed and approved at the time the L & D Approval request is made.

A form has been developed that is attached to and made a part of this Design Directive for completion by the responsible Environmental Project Managers assigned to the project by the Environmental Section of the Engineering Division, indicating that the environmental constraints for each project have been evaluated.

## **20.2 Selection of the Preferred Alignment**

Once the draft Study has been completed and sent through the required distribution and comment periods as described in DD-202, "Field and Office Reviews for Initial Engineering, Preliminary Engineering and Final Design", an alignment is then selected from the alternates given in the report. See DD-209, "Guidance for Preparation of Design Reports and Studies" for information on how to complete a Design Study. The decision on the Preferred Alternate is usually made by the Division using the information provided in the final approved Study. It should be noted that DD-201, "Public Involvement Process" should be reviewed to determine if any of the stipulations contained therein apply to each and every Study. Any public involvement must take place before L & D Approval is requested. When there is disagreement among the involved parties the Project Manager or Designer will build a consensus among the parties to choose the Preferred Alternate.

## **20.3 Preparation of the L & D Approval Request**

After all required reviews described in DD-202, to which reference is hereby made, are completed, a Preferred Alternate is then chosen. The Preferred Alternate is the end result of the Study process. This is the alignment for the L & D Approval request to be made on.

The request will be made in memo form (see attached sample memo, which is for example only, and is to be modified as needed for each individual Study) from the Director of the Engineering Division

for Central Office Studies, and from the District Engineer for District-produced Studies, to the State Highway Engineer – Development outlining the choice of the Preferred Alternate. This memo should describe the justification for the choice, discussing estimated capital costs, environmental affects, utility relocations, major hydraulic requirements and residential/commercial effects, permit requirements, etc. Also, the attached Environmental Requirements approval form, completed for each alternate required to be carried forward, or the completed and approved Categorical Exclusion is to be included, as well as a copy of the approved Design Study itself showing the Preferred Alternate.

When the request package is returned approved, then Initial Engineering according to DD-200 is considered completed, and Preliminary Engineering (again according to DD-200) can commence. If the package is NOT approved, then the Study will have to be reinvestigated and the process repeated. Again, it is not necessary to have full environmental clearance to make an L & D request on most projects, but enough environmental work should be performed to assure that there are no major issues or circumstances as described in 20.1 above concerning federal regulatory agencies or major constraints that may be uncovered during Preliminary and Final Design that may delay the project or require a change in the Preferred Alternate. Also reiterating, it is desired that the environmental process be completed for projects which fall under the Categorical Exclusion process to have this document completed and approved at the time the L & D Approval request is made.

The approved memo shall go into the Project Manager's on-hand files (as well as the Structure Manager's on-hand files, if required), a copy placed in Engineering Division's master files, copies sent to all parties involved in the review and selection of the Preferred Alternate, and a copy sent to the Program Administration Division indicating that the 200 Series Study is complete.

**30. Sample L & D Approval Request Memorandum – to be modified as required for each individual Study**

MEMORANDUM

TO: HD

FROM: DDR (*Project Manager*) **OR** DDI (*Designer*) **OR** (*District xx - Designer*) **through** the Director of the Engineering Division (for Central Office projects) **OR** the District Engineer (for District projects)

SUBJECT: State Project xxxxxxxxxx  
Federal Project xxxxxxxxxx  
(Project Name)  
(County)

Enclosed is the design report for the subject project, a summary of the recent public meeting on this project (if applicable), comment sheets from local public officials (if applicable), the completed Environmental Requirements Checklists, and a copy of the Study showing all xxx alternates for this project, with Construction Cost Estimates, a Scope of Work narrative, and Preliminary Engineering Estimates.

In compliance with Section 23, Code of Federal Register (CFR), Part 771, Environmental Impact and Related Procedures, the Division is considering (or “has considered” if the Environmental Document is completed and approved) the social, economic and environmental effects of this project and has determined that the preferred alternative is not likely to result in adverse impacts to environmental resources.

From an engineering and financial point of view, we recommend that Alternative xx be approved for the subject project; however, there has been strong support from local citizens for Alternate xx. Alternate xx is an acceptable alternate technically, but it will cost \$xxxxxxxx more than Alternate xx. We request approval on the Preferred Alternate to advance to plan development.

Enclosure

GLB:ss

Approved: \_\_\_\_\_ Disapproved: \_\_\_\_\_  
Date: \_\_\_\_\_ (Reason for Disapproval)

cc: DDR(*Roadway Project Manager, Structure Project Manager (if necessary)*), DDE (*Environmental Project Manager*), DD(MF), (*Also copy to all parties who reviewed and commented*), D-xx (*and any other District people who reviewed and commented*), CP

### Environmental Requirements Checklist

(Note: Complete this form for each alternative required to be carried forward)

**Project Name:** \_\_\_\_\_

**Project Numbers:** \_\_\_\_\_

**Environmental and Cultural/Natural Resources Reviewers:**

Archaeology: \_\_\_\_\_

Historic Resources: \_\_\_\_\_

Streams/Wetlands: \_\_\_\_\_

Endangered Species: \_\_\_\_\_

Alternative # and description \_\_\_\_\_

<b>Archaeology:</b>	No Effect	No Adverse Effect	Adverse Effect
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If adverse effects describe: \_\_\_\_\_

<b>Historic resources:</b>	No Effect	No Adverse Effect	Adverse Effect
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If adverse effects describe: \_\_\_\_\_

<b>Streams/Wetlands:</b>	No Effect	No Adverse Effect	Adverse Effect
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If adverse effects describe: \_\_\_\_\_

<b>Endangered Species:</b>	No Effect	No Adverse Effect	Adverse Effect
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If adverse effects describe: \_\_\_\_\_