

DESIGN MEMORANDUM NO. 3-91

TO; Chief District Engineers
Design Engineers
Active Consultants

FROM: C. S. Raymer, Director
Division of Design

DATE; February 28, 1991

SUBJECT; Consideration of Water-Related Activities
During Design of Project

The recent issuance of Design Memo 19-90 focused on the topic of identification of both permit as well as state certification situations. That memo also served to introduce an additional analysis which is being required when wetlands or channel changes are Involved on a project. That analysis addresses avoidance> minimization, and mitigation. This memo will outline the process for development of that analysis.

PROCEDURE

The consideration of critical controls is an Important step prior to the establishment of a line and grade. These controls are unique to each project. One item which has gained recent attention is wetlands. The Presidential "no-net loss" Policy makes it essential for wetlands to be evaluated as a potential control and every reasonable effort taken to avoid Impacts from highway construction. The proposed channelization of streams Is currently being viewed in a similar manner. There is no mandate on channelization similar to that on wetlands, but efforts should be made to minimize Impacts to streams. The avoidance of channel changes where reasonable alternatives exist should be routine considerations. Documentation must be prepared on all projects when either wetlands or channel changes cannot be avoided.

Effective Immediately, the preparation of an attachment to the Preliminary Line and Grade Inspection Report entitled "Avoidance Alternatives to Water-Related Impacts" Is required on all projects. This document may address the minimization aspect when appropriate. The document must Identify each blue-line crossing and describe anticipated construction activities, i.e., bridge, culvert, channel change. Projects which do not involve any water-related Impacts should be documented as such in the body of the report. Blue-line streams on the quad sheets are the "streams" which require specific attention to avoidance alternatives. Some blue-line streams may be excluded from the attention noted in these requirements. Examples Include "streams" with minimal contributing area resulting in flows of a very intermittent frequency or steep gradients. The inspection party should address these situations and document their exclusion in the preliminary line and grade inspection report.

Approval of the Preliminary Line and Grade Inspection Report constitutes approval of an alignment for use in developing detailed construction plans. This alignment will continue to be refined, with appropriate attention to further minimizing impacts to both wetlands and streams, as this detail is developed. Once the project reaches a stage that avoidance and minimization steps have been satisfied, the designer will then be responsible for the development of a mitigation plan. Drawings and a special provision are being developed to assist in this effort. These will be furnished at a later date. The appropriate material should be incorporated into the plans to mitigate any water-related impact. This step should normally occur prior to the Final Plans-in-Hand Inspection. An attachment to the Inspection report shall also be provided which addresses avoidance, minimization, and mitigation. This attachment shall be entitled "Assessment of Water-Related Impacts" and must incorporate the "Avoidance Alternatives to Water-Related Impacts" report prepared with the line and grade study.

Projects which have proceeded beyond the Preliminary Line and Grade stage but have not reached Final Plans-in-Hand stage must be evaluated by the designer and the required analysis completed prior to the Inspection. Projects which have proceeded beyond the Final Plans-in-Hand Inspection will be evaluated by either the designer or District Office and an appropriate document prepared. The Branch Manager for Location shall coordinate the assignment of appropriate responsibilities for the latter case with the Permit Coordinator.

COORDINATION RESPONSIBILITIES

Identification of wetlands on projects will be the responsibility of the Division of Environmental Analysis. It will be the responsibility of the District Preconstruction Engineer to determine when such an effort is needed and make the appropriate request for the work. Plans should accompany the request.

The Location Engineer will be responsible for ensuring attention is given to water-related impacts during both the Preliminary Line and Grade Inspection and Final Plans-in-Hand Inspection. The Drainage Engineer will be responsible for coordinating the development of a drainage plan that complies with all applicable drainage criteria. During this effort, attention must be given to minimizing any activity which could affect water quality. A separate Drainage Inspection is normally not recommended but may be held to expedite resolving issues affecting stream impacts. This decision should be made jointly by the District Preconstruction Engineer and Drainage Engineer.

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