CONSTRUCTION DIRECTIVE 07220.100.24 Revised November 8, 2005

SUBJECT: Design Errors and/or Omissions

FORM NO: OOC 21

GENERAL:

The State Highway Administration (SHA) has established procedures for identifying and documenting apparent design errors and/or omissions.

PURPOSE:

To document, report, evaluate and promptly respond to apparent design errors and/or omissions and initiate the process of recovering appropriate monies from the Design Consultant Firm for actual design errors and/or omissions.

This Directive is intended to make appropriate personnel aware of their obligations as well as the follow up required by other responsibility centers.

The SHA document "Procedures for Pursuing Reimbursement from Design Consultants for Construction Change Orders Resulting from Design Errors and/or Omissions dated November 1, 2005", included with this Directive will govern the substantive and procedural requirements with respect to errors and/or omissions. This document should be consulted by appropriate field personnel.

PROCEDURE:

A. All Project Inspection Personnel

Project Inspection Personnel will be responsible for reporting apparent design errors and/or omissions to the SHA Construction Project Engineer (CPE) as soon as they become known.

B. Construction Project Engineer (CPE)

At the first indication of an apparent design error and/or omission the CPE will:

1. Immediately notify Inspection Staff that detailed documentation covering the work in question must be kept, including photographs, record of labor, materials and equipment, etc., using a separate IDR. A separate IDR file will be kept for each apparent error and/or omission.
2. Notify the District Area Engineer and/or Assistant District Engineer - Construction.
3. Prepare an Initial Notification of Apparent Design Error and/or Omission Report (Form OOC21) including a complete description and impacts of the apparent error and/or omission. Also, include a description of any immediate action taken to reduce the cost of the apparent error and/or omission, under "Current Status/Comments".
4. Coordinate the follow-up documentation effort with that of the District Office.

PROCEDURE: (continued)

C. District Area Engineer (DAE) or Assistant District Engineer – Construction (ADE-C)

At first indication of an apparent design error and/or omission from the CPE, the DAE or ADE-C will:

1. Confirm a report including a complete description and consequences of the apparent error and/or omission (Form OOC21) has been prepared.
2. Notify the Division Chief of the Lead Design Office. The Lead Design Office is expected to notify the Prime Design Consultant and /or Support Division responsible for the work upon receipt of the completed Initial Notification of Apparent Design Error and or/Omission Report (FormOOC21).

D. The Division Chief of the Lead Design Office

The Lead Design Office is responsible for coordinating the final response for each apparent error and/or omission report initiated. Upon notification of an apparent design error and/or omission from the ADE- C, the Division Chief of the Lead Design Office (or their designee) will review the form, determine the responsibility area for the apparent error and/or omission, and forward it to the appropriate SHA Design Office Division Chief or retain in the Lead Design Office.

1. If forwarded to another office, the Division Chief will note on the form when and to whom the form was sent.
2. If retained in Lead Design Office, the Division Chief will follow the steps outlined in Section E

E. The Division Chief of the Responsibility Area for the Apparent Error and/or Omission

The Responsibility Area Project Manager is responsible for ensuring a response to each report of an apparent error and/or omission received is forwarded to the Lead Design Office. Upon notification of an apparent design error and/or omission from the Lead Design Office Division Chief, the Division Chief of the Responsibility Area Design Office (or their designee) will:

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PROCEDURE: (continued)

1. Review the Initial Notification of Apparent Design Error and/or Omission Report and make a recommendation as to whether the problem is a design error and/or omission.

    a) If the recommendation is that the problem is not a design error and/or omission, the Responsibility Area Design Division Chief will so notify the ADE-C. The Responsibility Area Design Division Chief will coordinate with the ADE-C to develop a solution to the problem.
    b) If the recommendation is that the problem is a design error and/or omission, the Responsibility Area Design Division Chief will:

        i. Notify the Prime Consultant of the apparent error and/or omission and the SHA's policy regarding costs incurred. This notification will be made verbally then followed by written notice, prepared by the Responsibility Area Design Division Chief and signed by the Deputy Administrator/Chief Engineer for Operations.

        ii. Review the Initial Notification of Apparent Design Error and/or Omission report to make an assessment of liability and whether the apparent error and/or omission will result in an increase in cost.

        iii. Invite the Prime Consultant to participate in a solution in cooperation with the staff of the District Engineer. The Prime Consultant's participation at this step is not an admission of liability.

            a. The SHA holds the Prime Consultant responsible for all services performed under the existing engineering agreement. If the apparent design error and/or omission occurred on work designed by a Sub-Consultant, the Prime Consultant shall be responsible for notifying the Sub-Consultant.

            b. If the Prime Consultant refuses to participate in a solution of the apparent design error and/or omission, the Responsibility Area Division Chief will document this fact. The name and title of the Consultant's representative shall be part of the documentation.

2. Provide guidance to staff. Emphasize the importance of adequate factual records, including the timely review of Change Orders to substantiate and document additional construction costs. This will be coordinated with the ADE-C.

PROCEDURE : (continued)

3. Any apparent error and/or omission so reported must be resolved in one of two ways after review by the appropriate Design Offices.
   a) If it is determined that Consultant liability exists, and a monetary settlement will be pursued, the matter should be elevated to the Deputy Administrator/Chief Engineer for Operations' Errors and/or Omissions committee. The Lead Design Office Director will sign the Initial Notification of Apparent Design Error and/or Omission, indicating Consultant liability.

   b) If is determined that no Consultant liability exists, the appropriate Design Division Chief should so notify the Lead Design Office to prepare a drop memo for the Deputy Administrator/Chief Engineer for Operations' signature, with a copy to the Office of Finance.

F. Deputy Administrator/Chief Engineer for Operations

Upon notification of an apparent design error and/or omission from the ADE-Construction, the Deputy Administrator/Chief Engineer for Operations (or their designee) will:

1. Add the subject project to the list of potential and ongoing Consultant liability actions for inclusion in the monthly report by assigning a tracking number.
2. Monitor the evaluation process of the apparent error and/or omission.
3. Convene a meeting and make a judgment regarding liability in the event of a disagreement between the ADE-C, the Responsibility Area Design Office and/or the Lead Design Office.
4. Process a monthly report to the Administrator and Design Office Directors summarizing all Initial Notification of Apparent Design Error and/or omission reports.
5. Confer with the Administrator and Design Office Directors before pursuit of a monetary settlement.
6. Sign the written notification of the Prime Consultant of the error and/or omission claim and damages sought.
7. Refer the matter to the Independent Review Board for Errors & Omissions (IRBEO) should the Prime Consultant make such a request. The recommendation of this Board will be non-binding and will be reported to the SHA Administrator and the Prime Consultant.
8. Refer the matter to SHA Legal Counsel if an agreement between SHA and the Prime Consultant does not result from the IRBEO Review.
9. Send a copy of all final decisions to FHWA.

**PROCEDURES FOR PURSUING REIMBURSEMENT
FROM DESIGN CONSULTANTS
FOR CONSTRUCTION CHANGE ORDERS RESULTING
FROM DESIGN ERRORS AND/OR OMISSIONS
NOVEMBER 1, 2005**

It is the goal of the Maryland State Highway Administration (SHA) to advertise Contract Documents that are complete and accurate and meet the highest standards of design practice. It is the SHA's policy to achieve the highest quality of Consultant standards and to identify errors and/or omissions in design documents that do not achieve the customary standard of care for similar professionals practicing in the State of Maryland. SHA managers will investigate any alleged error and/or omission. If the allegations of design errors and/or omissions are deemed to be creditable, the SHA will make every reasonable effort to recover the associated costs from the Design Consultant.

Errors and/or omissions represent deviations from the standard of care on the part of a Design Consultant or its Sub-Consultants in the performance of professional services under contract with the SHA. The Design Consultant and its Sub-Consultants are expected to perform services in accordance with that standard of care, skill and diligence normally provided by a Consultant in the performance of services set forth in the Design Consultant's contract, having due regard for professional judgment and the circumstances under which the services are to be performed.

1) If alleged design errors and/or omissions are found prior to advertisement of a specific contract, then SHA will advise the Consultant to correct such errors and/or omissions, at no cost to SHA.

2) If alleged design errors and/or omissions are found after advertisement but prior to bid opening, then the Consultant shall be responsible for the cost of preparing the addendum.

3) If the alleged design errors and/or omissions are not known until after the bid opening, then the error and/or omission should be reviewed for Consultant liability:
   a) Fiscal Impact (all costs incurred above that expected had the plans been correct originally);
   b) Cost of removal of improperly completed work;
   c) Cost of preparing the redline revision; and,
   d) Delay costs determined to be caused directly by an error or omission of the Design Consultant.

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PROCEDURE : (continued)

4) If an alleged error and/or omission is discovered during construction, the Assistant District Engineer – Construction will immediately notify the Division Chief whose office has lead design responsibility. The Lead Design Office will immediately notify the Consultant, or in the case of a Support Area Consultant – notify the Support Area Design Office who will notify the Consultant, of the alleged error and/or omission and advise the Consultant that SHA is monitoring any associated increase in costs. The Consultant will be given the opportunity to participate in the determination of the solution and resulting cost to rectify the alleged error and/or omission. The Consultant will in no way construe participation in this process as an admission of any liability. The District may direct the Contractor to avoid proceeding with those elements of construction that are based on incorrect information that may result in additional costs. The Consultant shall make every effort to resolve the alleged error and/or omission and make the revisions in a timely fashion to avoid any delay claim. In the event SHA determines that the Consultant is responsible for the alleged error and/or omission, the Consultant will not be compensated for their services to make the required design revisions. Conversely, if it is determined that no error and/or omission existed, the Consultant will be reimbursed accordingly.

   a) Any necessary construction Change Order (CO) will be processed as promptly as possible, regardless of the status of any claim against the Design Consultant. The District will negotiate the construction CO and process the CO for payment to Contractor through normal procedures.
   b) If the error and/or omission results in additional costs, the District Engineer will transmit a copy of the CO to the Director, Office of Construction and the Responsibility Area Design Division Chief by memorandum, along with a copy of the Initial Notification of Apparent Design Error or Omission report. The Responsibility Area Design Office will prepare a letter to the Consultant for the Deputy Administrator/Chief Engineer for Operations' signature. This letter will detail the alleged error and/or omission and associated costs and specify a response date of thirty (30) days after receipt of same. The Deputy Administrators, Chief Counsel, District Engineer, ADE-Construction, Lead Design Office Director (if not the office preparing the letter) and Director, Office of Construction will be sent a copy of the letter.
   c) The Deputy Administrator/Chief Engineer for Operations (or their designee) will coordinate the review of the response of the Consultant firm. A copy of the Consultant's response should be sent to the Office of Counsel.
      i) If the Consultant accepts responsibility, the Deputy Administrator/Chief Engineer for Operations will request payment in the appropriate amount and coordinate same with the Office of Finance – Receipts and Disbursements.
      ii) If the Consultant disputes the request for additional costs, offers a lesser settlement or denies responsibility for the alleged error and/or omission, the Responsibility Area Design Office will reevaluate the Consultant's liability in light of the response received from the Consultant and make a recommendation to the Deputy Administrator/Chief Engineer for Operations on the validity of the response, using the following procedures:

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PROCEDURE : (continued)

1) If the Consultant response is accepted by the Responsibility Area Design Office and concurred with by the Deputy Administrator/Chief Engineer for Operations, payment, if any, will be requested under the usual collection methods, as earlier mentioned.
2) If the Responsibility Area Design Office does not agree with the Consultant's evaluation and continues to consider the Consultant liable for additional costs, the Consultant will be notified in writing. The Responsibility Area Design Office will prepare the notification letter for the signature of the Deputy Administrator/Chief Engineer of Operations. The Deputy Administrators, Chief Counsel, District Engineer, ADE-Construction, Lead Design Office Director (if not the office preparing the letter) and Director, Office of Construction will be sent a copy of the letter. The Consultant shall be required to respond within thirty (30) days of receipt of this determination. Failure to respond will result in a claim for payment being issued. (The Consultant's response can be a request that the matter be forwarded to the Independent Review Board for Errors and Omissions (IRBEO).)

iii) If the Consultant requests that the matter be forwarded to the IRBEO, the Deputy Administrator/Chief Engineer for Operations will convene a meeting of the Board. The IRBEO shall render a recommendation that is non-binding on either party. Both the Consultant and the SHA shall present all issues regarding the matter. The IRBEO will issue an opinion report to all concerned parties. The opinion report of the IRBEO, while not binding, shall be admissible evidence in any subsequent proceedings between SHA and the Consultant.

1) Should all parties agree with the opinion reached by the IRBEO, the Deputy Administrator/Chief Engineer for Operations will send a memo to the Office of the Finance requesting that they collect the appropriate amount from the Consultant, or instruct the Office of Finance to consider the matter closed and no funds due from the Consultant.
2) If no consensus is reached, the Responsibility Area Design Office will prepare for signature by the Deputy Administrator/Chief Engineer for Operations a notice of claim against the Consultant, pursuant to COMAR 21.10.04.05. This notice of claim requires the Administrator concurrence. The Office of Counsel will review all such notices prior to concurrence by the Administrator. The notice will include a request that the Consultant reimburse the State within thirty (30) days.

d) If the Consultant fails to respond to the notice of claim or provides an inadequate response, the Responsibility Area Design Office will coordinate the issuance by the Deputy Administrator/Chief Engineer for Operations of a Procurement Officer's final decision pursuant to COMAR 21.10.04. The final decision will identify one of the following methods by which SHA will seek reimbursement from the Consultant.

i) SHA will deduct the amount from the next invoice due the Consultant for design service claimed under any ongoing contract with the State. The invoice shall be accompanied

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PROCEDURE : (continued)

with a memo to the Office of the Finance explaining the reason for not approving the invoice in full and shall include the pertinent back-up information; or,

ii) If there are no open contracts with the Consultant or there are not sufficient funds remaining in open contracts with the Consultant to cover the Consultant's liability, then the final decision will assert SHA's monetary claim against the Consultant. The Consultant shall be advised that the final decision represents a final settlement of the dispute between SHA and the Consultant, enforceable in Court, unless appealed by the Consultant in accordance with the requirements of the last paragraph of the final decision. The last paragraph of the final decision shall specify the time limitation for an appeal of the decision.

The Independent Review Board for Errors and/or Omissions (IRBEO)

The IRBEO will be comprised of five (5) members: Two (2) members from modals of the Maryland Department of Transportation (MDOT), two (2) members from the Consultant community, and the Deputy Administrator/Chief Engineer for Operations. The members of the committee from the MDOT will be appointed by the Secretary of Transportation, but shall not include any MDOT employees with direct involvement in the project or the chain of review preceding the IRBEO referral. The Consultant Engineers Council (CEC) Maryland Department of Transportation Committee Chair and Co-Chair shall appoint the members from the Consultant community, after receiving appropriate notification from the Deputy Administrator/Chief Engineer for Operations. All Consultant members of the Board shall be Professional Engineers, and agree to serve without compensation. With respect to landscape architectural design issues, two (2) of the Consultant members shall be Registered Landscape Architects. The CEC shall maintain a list of Consultant members willing to serve on the board. The list should contain a minimum of three Professional Engineers from different Consultant Firms for each specialty area, including but not limited to, highway, bridge, traffic, and landscape. The CEC will be responsible for updating and maintaining the list, as well as notifying Consultant members when their services are required.

The SHA Deputy Administrator/Chief Engineer for Operations, or their designee, will chair the IRBEO.

Chief Construction Inspection Division

APPROVED

Director, Office of Construction

OOC21 11/01/05
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Tracking #: _____

INITIAL NOTIFICATION OF APPARENT DESIGN ERROR AND/OR OMISSION

TO: Lead Design Division Chief:	
Attention: Lead Project Engineer:	
Date:	
FROM: ADE - Construction:	
Construction Project Engineer:	
Contract No:	
Project Description:	
Description of Error or Omission:	
Description of Impact:	
Current Status/Comments:	

DESIGN OFFICE RESPONSE TO INITIAL REPORT OF APPARENT ERROR AND/OR OMISSION

Date:	
Lead Design Project Engineer:	
E&O Responsibility Area:	
Responsibility Area Notified: *Date:*	*Contact Person:*

Designer:	☐ *In-House*	☐ *Consultant:*
Consultant Notified: *Date:*	*Contact Person:*	

Concur – Possible Error or Omission:	☐ *Yes*	☐ *No*
Comments:		

Potential Consultant Liability:	☐ *Yes*	☐ *No*	☐ *N/A*
Director, Lead Design Office Signature/Date:	***Original was signed on _____ and is available in Design Project File***		

cc: ADE-Construction, Director-Office of Construction, Director-Appropriate Support Design Office, Director-Lead Design Office, Chief-Lead Design Division, Deputy Administrator/Chief Engineer of Operations

Tracking #: _____

INITIAL NOTIFICATION OF APPARENT DESIGN ERROR AND/OR OMISSION

Remedy/Solution:

Would costs have been incurred anyway? ☐ *Yes* ☐ *No*

Explain/Remarks:

cc: ADE-Construction, Director-Office of Construction, Director-Appropriate Support Design Office, Director-Lead Design Office, Chief-Lead Design Division, Deputy Administrator/Chief Engineer of Operations