

TABLE OF CONTENTS

Table of Contents.....	1
List of Figures.....	2
7-1A Editable Scope / Environmental Compliance Certification / Permit Application Certification form.....	2
7-2A Editable Design Summary form (Bridge/Culvert Replacement)	2
7-2B Editable Design Summary form (Road Project).....	2
7-2C Editable Design Summary form (Roadway Lighting Replacement).....	2
7-2D Editable Design Summary form (Roadway Sign Replacement).....	2
7-2E Editable Design Summary form (Signalization Project).....	2
7-2F Editable Document Transmittal to Hearings Examiner and Request for Public Hearing – Cover Memorandum.....	2
7-2G Editable Certification of Public Hearing Held – form	2
7-2H Editable Certification of Public Hearing Afforded, but Not Held – form.....	2
7-2 I Editable Design Approval Packet Transmittal – Cover Memorandum form – INDOT- Developed Project	2
7-3A Editable Fish and Wildlife Review Memorandum.....	2
Chapter Seven.....	3
7-1.0 ENVIRONMENTAL PROCEDURES.....	3
7-1.01 INDOT Document.....	3
7-1.01(01) Categorical Exclusion (CE).....	3
7-1.01(02) Environmental Assessment / Finding Of No Significant Impact (EA/FONSI)	4
7-1.01(03) Environmental Impact Statement / Record of Decision (EIS / ROD)	4
7-1.01(04) Environmental Commitments [Rev. Oct. 2008]	4
7-1.01(05) INDOT Project Commitment Database [Added Oct. 2008].....	7
7-1.02 Wildlife Habitat Replacement.....	8
7-1.03 Wetland Design Guidelines.....	9
7-2.0 DESIGN SUMMARY	10
7-2.01 Introduction	10
7-2.02 Design Summary Sections	11
7-2.03 Road Rehabilitation Project	19
7-2.04 Transmittal for Design Hearing.....	20
7-2.05 Attachments.....	20
7-2.06 Design Approval Process	21
7-3.0 FISH AND WILDLIFE REVIEW	21

LIST OF FIGURES

Figure Title

7-1A Editable Scope / Environmental Compliance Certification / Permit Application Certification form

7-2A Editable Design Summary form (Bridge/Culvert Replacement)

7-2B Editable Design Summary form (Road Project)

7-2C Editable Design Summary form (Roadway Lighting Replacement)

7-2D Editable Design Summary form (Roadway Sign Replacement)

7-2E Editable Design Summary form (Signalization Project)

7-2F Editable Document Transmittal to Hearings Examiner and Request for Public Hearing – Cover Memorandum

7-2G Editable Certification of Public Hearing Held – form

7-2H Editable Certification of Public Hearing Afforded, but Not Held – form

7-2 I Editable Design Approval Packet Transmittal – Cover Memorandum form – INDOT-Developed Project

7-3A Editable Fish and Wildlife Review Memorandum

CHAPTER SEVEN

ENVIRONMENTAL PROCEDURES / DESIGN SUMMARY

7-1.0 ENVIRONMENTAL PROCEDURES

7-1.01 INDOT Document

The INDOT *Procedural Manual for Preparing Environmental Studies* provides the Department's procedures for the preparation of the environmental documents described below.

The designer should refer to the appropriate document as needed to determine the role of environmental procedures in project development. Copies of such document may be obtained from the Production Management Division's Office of Environmental Services.

An editable version of Figure 7-1A, Scope / Environmental Compliance Certification / Permit Application, may also be found on the Department's website at www.in.gov/dot/div/contracts/design/dmforms/.

If more right of way is required for a project than is described in the environmental document, the designer should submit a written request to the Office of Environmental Services' Environmental Policy Team to determine if an Additional Information subsection is required.

Such documents prepared for a Department project will apply as shown below.

7-1.01(01) Categorical Exclusion (CE)

The type of project for which the environmental document is typically considered to be a CE is as follows:

1. access control;
2. added travel lanes with little or no right-of-way take;
3. bridge rehabilitation;
4. bridge replacement;
5. drainage correction;
6. erosion and landslide control;
7. guardrail and lighting;
8. intersection improvement;

9. railroad-crossing improvement;
10. rest-area modernization and construction;
11. Resurfacing, Restoration, and Rehabilitation (3R);
12. safety improvements;
13. sight distance correction;
14. signalization and signing;
15. small-structure replacement; or
16. weigh-station modernization and construction.

7-1.01(02) Environmental Assessment / Finding Of No Significant Impact (EA/FONSI)

The type of project for which the environmental document is typically considered to be an EA/FONSI is as follows:

1. added travel lanes involving acquisition of large amounts of right of way and a considerable number of relocations; or
2. construction of a new roadway.

7-1.01(03) Environmental Impact Statement / Record of Decision (EIS / ROD)

The type of project for which the environmental document is typically considered to be an EIS / ROD is as follows:

1. construction of a new controlled-access freeway;
2. onstruction of 4 or more lanes on a new location; or
3. project with a significant adverse impact on the human environment.

7-1.01(04) Environmental Commitments [Rev. Oct. 2008]

A commitment is defined as an agreement by the Department with an outside party, that the Department will perform an action or refrain from certain actions. A commitment may come from a variety of sources, such as resource agencies, landowners, utilities, or the public in general. A commitment can be classified as firm, indicating that failure to comply with it has legal consequences, or it can be an item for further consideration, meaning that it is desirable but it is not required by law.

During the development phase of a project a number of commitments or agreements with property owners or public agencies can be made, some which cannot be fulfilled until the project is constructed. Environmental commitments are included in the language of the permits that are

included in the construction contract. Commitments made to property owners or public agencies will be documented. This will allow the project engineer/supervisor to have copies of these agreements during construction.

All environmental, context-sensitivity, and regulatory-agency permits commitments to be incorporated into each project should be summarized in one electronic location (document), as described in Section 7-1.01(05).

The designer may request and receive written approval from a commitment's originator to omit a commitment. Such request, including the rationale for deletion or modification of a commitment, should be sent to the Environment, Planning and Engineering Division's Environmental Assessment Section. A copy of the request should also be sent to the appropriate design project coordinator. The Environmental Assessment Section will notify the designer whether it is acceptable to pursue deletion of a commitment with the appropriate regulatory agency. The designer may not delete a commitment until written approval is received from the appropriate regulatory agency or agencies.

An example of a commitment included in the environmental document that might be considered for deletion is the fish spawning restriction (no in-channel work between April 1 and June 30), especially if it is an intermittent stream (dry most of the time).

If a project has not received design approval and the designer believes that one or more of the commitments listed in the environmental document should be omitted, the designer should follow the procedure described above. The designer should then develop the Fish and Wildlife Review and Mitigation Section of the Design Summary accordingly, based upon the written response from the Environmental Assessment Section and the appropriate regulatory agency or agencies. The designer should attach to the Fish and Wildlife Review, the letter(s) from the appropriate regulatory agency or agencies approving deletion or modification of a commitment.

Each environmental document includes a section with a summary of commitments. There are Required and Optional subsections.

If INDOT committed to the fish spawning restriction in the Fish and Wildlife Review and such restriction is not contained in any of the permits to be included in the contract documents, the designer must prepare a unique special provision and include it in the special provisions attachments.

1. Site Construction Approval of Wetland Mitigation Areas for Local Transportation Project. The INDOT wetland scientist, wetland biologist, or landscape architect should not be referenced in the special provisions as an approving agent for wetlands under construction. These duties are the responsibility of the design firm or the agent of the local public agency who will be monitoring these sites. The local public agency is

responsible for the five year monitoring of these mitigation areas. It is their responsibility to ensure the viability of the site for intended mitigation.

2. Preliminary Site Investigation Review. The designer should review the preliminary site investigation and site assessment and take appropriate action (place notes on plans, include special provisions, etc.). For clarification or assistance with understanding these reports, the designer should contact the Environment, Planning and Engineering Division's Environmental Services Section manager. Information shown in these documents regarding gas storage tanks and hazardous waste should be incorporated into the plans or specifications.
3. Woody Vegetation Plans Procedures. The procedure for processing Woody Vegetation plans is as follows:
 - a. The Woody Vegetation plans should be transmitted to the Design Division's project coordinator at the Preliminary Field Check and Final Plan stages. The submittals will be logged in by the project coordinator and sent to the Design Division's landscape architect for review.
 - b. Once the plan review has been completed, the landscape architect will send a memorandum to the designer with a copy to the project coordinator. For a consultant-designed project, the landscape architect will also send a copy of the memorandum to the Design Division's project manager.

The preliminary woody revegetation review should be coordinated with the Design Division's landscape architect. This is to occur in advance of the Fish and Wildlife Review submittal. The landscape architect is to respond directly to the designer with a written summary of the review with a copy to the Design Division's project coordinator.

The designer should work directly with the landscape architect regarding final woody revegetation review. The Design Division's project coordinator is to receive a copy of the written summary of the review.

4. Asbestos Certification. The designer is required to file a statement to certify that no asbestos-containing material was specified as a building material for the project. The certifications that are received are placed in the project file. In order to be of use to INDOT, it must be able to retrieve the appropriate statement when the structure is worked on in the future. Therefore, the designer should send the original certification to the appropriate district bridge inspector, with a copy to the Environment, Planning and Engineering Division's Environmental Services manager, and place a copy in the design calculation book for the project.

7-1.01(05) INDOT Project Commitment Database [Added Oct. 2008]

A commitment-tracking procedure has been developed to ensure that everyone involved with a project is aware of its commitments, and to provide a means to document when the commitments are to be implemented.

This tracking mechanism is called the INDOT Project Commitment Database (IPCD). It, along with instructions for its use, can be accessed by Department personnel only through the INDOT Intranet.

Instructions for locating and using IPCD are available in an Intranet-site help file at <http://indotweb/spmsmytasks/Help/CommitmentDBHelp.doc>.

1. Adding, Importing, Updating, or Deleting Database Commitments.

- a. INDOT User. The IPCD Program Administrator will grant access rights to each user, as described on the IPCD Intranet site. Each Office is then responsible for entering its own commitments into the IPCD.
- b. Consultant User. Commitments that are provided by a consultant should be submitted during the Final Tracings submittal in an Excel table format which will allow the commitments to be imported into the Commitment Database. The table format will be provided by the Department. The Excel table should provide all of the information shown in the IPCD with each field completed. The order of columns in the submitted table should be the same order shown in the IPCD. The Excel spreadsheet is located in the link shown above for help. A consultant can request a copy of the spreadsheet.

The standard naming convention for the Excel files submitted into the database should be in the format as follows:

Project Commitments Des [Des No.] [Project Manager] [current date]

Example: Project Commitments Des 0012345 John Smith 2/17/09

The commitment's text should be placed in the Excel spreadsheet's column D. This cell is limited to 1000 characters per commitment once it is imported into the database. If more than 1000 characters are entered, an error will occur during the import and the text will not be entered into the database.

2. Responsibilities.

- a. Designer. The designer is responsible for ensuring that the commitments are included in the plans, pay items, and specifications. The Active Commitments Report should be included in the Final Tracings submittal.
- b. Project Manager. A copy of the Active Commitments Report should be provided to the designer by the project manager for the designer's signature. A copy of the Active Commitments Report should then be placed by the Office of Contracting into the project's Contract Information book.

The project manager should ensure that all active commitments, including those shown in the consultant's Excel spreadsheet, if applicable, have been added to the IPCD prior to letting.

The project manager should document changes in commitments or indicate commitments that cannot be satisfied. An unresolved commitment determined by the project engineer/supervisor to require monitoring after construction should be resolved by ensuring that a contract exists for the required monitoring.

- c. Project Engineer/Supervisor. The project engineer/supervisor is responsible to notify the project manager of the commitments that have been completed at the time of the final construction inspection. If during construction there are reasons that a commitment cannot be implemented, the project manager should be contacted to provide a resolution. The resolution will require a signoff by the commitment's originator.

After the final inspection, the project engineer/supervisor will sign a copy of the All Commitments Report and forward a copy to the project manager.

7-1.02 Wildlife Habitat Replacement

To some extent, the project will likely disturb existing wildlife habitat. Wildlife habitats may include woodlands, overgrown fields, pastures, or wetlands. The Department's policy is to replace any disturbed wetland. This will often require the purchase of additional right of way. To determine the project's effect on plants and animals, the designer should review the Engineer's Report or, where provided, the EIS or EA. These reports may also provide recommendations on the type and quantities of habitat to be replaced.

The designer is responsible for incorporating the mitigation of the wildlife habitat into the road or bridge plans. This may include revegetation with special grasses and woody species, wetlands grading and seed mixtures, etc. However, wetlands revegetation with aquatic and woody species

is usually administered under a separate contract once the road or bridge plans have been completed. The Office of Environmental Services will assist in coordinating habitat types and quantities. Its Ecology and Permits Team will assist in the development of plans and specifications.

7-1.03 Wetland Design Guidelines

Wetlands are often disturbed by a highway project. The Department's policy is to replace any disturbed wetland areas when required. Therefore, where the creation of new wetlands for the replacement, enhancement or restoration of existing wetlands is necessary, the following guidelines should be considered.

1. Wetland Sites. Previously altered wetland sites are preferred over upland sites.
2. Early Coordination. Initiate and continue throughout the design process if the road or bridge and associated wetland designs are accomplished by separate designers.
3. Design Features. Incorporate features which will allow control over the wetland water elevation when necessary. This is critical to successful installation and establishment of various aquatic species.
4. Wetland Contract. When setting up a separate contract involving wetlands, it will be the designer's responsibility to include one or more of the conditions as follows.
 - a. The wetland should be one of the first items constructed and operational, excluding aquatic plantings or seedlings. This is imperative because the wetland hydraulics must function as intended and any corrections must be made during the contract time. It will be necessary to include such items as sodding, temporary seeding, or erosion control that pertain to the wetland in the complementary road or bridge contract.
 - b. Install aquatic plantings and seeding in a separate follow-up contract. A minimum of one growing season establishment period will be required. More than one establishment period may be necessary. The Office of Environmental Services' Ecology and Permits Team should be consulted for guidance in determining the establishment periods.
 - c. Install aquatic plantings and seeding in the road or bridge contract when it is not practical to do so in a separate contract. A one-growing-season establishment period will be required. It is imperative that the wetland is one of the first items

to be constructed and operational because availability, delivery, and installation of aquatic plantings and seeding is on a limited basis.

5. Vegetation Plans. When developing wetland vegetation plans, specify species which are commonly supplied by nurseries specializing in aquatic species. Avoid species that are rare or uncommon which, typically, are limited in supply.
6. Native Species. It is important to realize that species which are present at or near the wetland site will self colonize the new wetland given the necessary hydraulic requirements. Sometimes these species are difficult or impossible to find and should be omitted from recommended planting lists.
7. Planting Recommendations. When specifying aquatic plants, tubers, roots, etc., the following application rates are recommended.

<u>Proposed Wetland Site Treatment</u>	<u>Application Rate Per Acre</u>
Enhancement	1,000
Restoration	1,000
Creation	1,000 – 3,000

It is also recommended that plants be installed in groupings of approximately 10 to 20 plants.

For additional information on wetland design, see the *INDOT Division of Design, Wetland Mitigation Design Guide*.

7-2.0 DESIGN SUMMARY

7-2.01 Introduction

The Design Summary is a written document describing a project, its existing conditions, the planned improvements, and the different considerations utilized in developing the design for the project. It is a Production Management Division document prepared primarily for the use of the Local Programs Division’s Office of Public Hearings.

A Design Summary must be prepared for each project (including one that does not involve the acquisition of new right of way), except for a bridge rehabilitation or bridge widening project without right-of-way requirements. Such a project requires a Bridge Inspection Report which is submitted to obtain design approval. See Chapter Seventy-two for a discussion on the Bridge Inspection Report.

An Abbreviated Design Summary will be required for an Interstate-route rehabilitation project as described in Section 7-2.03. A Brief Design Summary is required for each stand-alone project. Blank design summary forms are shown as the figures as follows:

<u>Figure</u>	<u>Title</u>
7-2A	Design Summary Form (Road / Bridge / Culvert Replacement)
7-2B	Design Summary Form (Roadway Lighting / Roadway Signs / Signalization Project)

Editable versions of these figures may also be found on the Department's website at www.in.gov/dot/div/contracts/design/dmforms/.

Where a major roadway project includes bridge replacement or new bridge construction within the project limits, the structure should be discussed within the Design Summary for the major project.

The Final Design Summary should be processed for design approval as soon as all public involvement requirements have been satisfied. With the exception of an Interstate-route rehabilitation project, it is not necessary to wait for the final pavement design before obtaining design approval.

Section 7-2.0 assumes the project to be consultant designed, but it need not be limited to that use. Each Design Summary should follow the format suggested in this Section. Direct all questions on the preparation of the Design Summary to the project manager.

7-2.02 Design Summary Sections

It is not necessary to attach the documents to the Design Summary as follows.

1. title sheet;
2. Index;
3. cost estimate (except for an Interstate-route rehabilitation project);
4. design concept letter;
5. hydraulic review;
6. scour review;
7. permits;
8. photographs; or
9. pavement design (except for an Interstate-route rehabilitation project).

The following documents, however, are required in the Design Summary.

1. Title Block. This information is used to identify the project and report submission. The following format should be used.

Design Summary Type _____
 Route No.: SR- ___ or US- ___ or I- ___
 Des No.: _____
 Project No.: _____
 Structure No.: _____
 County: _____
 City or Town: _____
 Federal Oversight: (Not Required) (Required)

- a. Design Summary Type. The Design Summary should be prepared in three phases: Preliminary Draft, Draft, and Final. The applicable submission type should be indicated in the Title Block.
- b. Route No. The route number and/or road or street name should be included.
- c. Des. No. This can be found in the INDOT project scheduling system, or, for a consultant-designed project, it can be found on the Notice to Proceed letter.
- d. Project No. The Construction project number can be found in the INDOT project scheduling system, or, for a consultant-designed project, it can be found on the Notice to Proceed letter. Subsequent correspondence generated by the project manager will reflect any changes in the project number.
- e. Structure No. If applicable, this can be found in the INDOT project scheduling system, or, for a consultant-designed project, it can be found on the Notice to Proceed letter. Subsequent correspondence generated by the Contract Administration Division's Consulting Services Team will reflect any changes in the structure number.
- f. County. The county in which the project is located should be shown.
- g. City or Town. The city or town for an urban-area project should be shown.
- h. Federal Oversight. This information can be found in the Engineer's Report or in the INDOT project scheduling system.

2. Location and Project Description. Provide a description of the location of the project, as a distance from a given reference point, and the county name. See Section 40-8.0 for Department policies for adherence to design criteria.

A brief written description of the planned improvement must be included in this section. Any important design elements or features that were not addressed in the environmental document should be included in the Design Summary.

The first sentence of the Design Summary should include the work category. Examples of work category include: Added Travel Lanes, Bridge Replacement, Road Reconstruction, etc.

- a. Roadway. The data that should be included are as follows:
- (1) total project length;
 - (2) changes in horizontal and vertical alignment;
 - (3) length of approach work from each end of a bridge (bridge project only);
and
 - (4) indication of whether the intersection sight distance meets the applicable criteria for the project.
- b. Structure (if applicable). The data that should be included are as follows:
- (1) description of the structure (e.g., structure type, span lengths, skew); and
 - (2) clear-roadway width of structure.
- c. Miscellaneous Project-Related Information. If applicable, the project features that should be briefly addressed are as follows:
- (1) significant county road relocations;
 - (2) less-than-standard intersection sight distance;
 - (3) underground storage tank remediation;
 - (4) channel relocation;
 - (5) clearing of wooded/forest areas;
 - (6) significant historical/archaeological considerations;
 - (7) sidewalks;
 - (8) Level One design exceptions;
 - (9) Level Two design criteria not met;
 - (10) permanent road closures; and

(11) non-Interstate-route permanent median crossover closures.

- d. Discussion of Alternatives. It is not necessary to repeat the discussion of alternatives contained in the Engineer's Report and environmental document. The Office of Public Hearings can usually refer to the environmental documents which it has on file.

3. Need for Improvement.

- a. The need for the improvement should include a brief description of the existing facility and the current condition of the facility. For a bridge, discuss the existing structure condition, substandard geometrics or the inadequacy of the existing waterway opening.
- b. The accident history of the project location should be briefly discussed, if it is a contributing factor to the need for the project.
- c. For a major project, the additional points that may be applicable are as follows:
- (1) transportation demand, including the urban transportation plan;
 - (2) Federal, State, or local government authority (legislation) directing the action;
 - (3) social demands or economic development, new employment, schools, land use plan, recreation, etc. What projected economic development/land use changes indicate the need to improve or add to the highway capacity? References to the environmental document could be helpful in these areas;
 - (4) Intermodal Relationships information on how the proposed facility may interface with airports, rail facilities, mass transit services, etc. References to the environmental document could be helpful in these areas;
 - (5) system linkage questions, such as: Is the proposed project the connecting link? Does it connect with other highway facilities? How does it fit into the system?
 - (6) Capacity can add to the demand, social services demand, or economic development. What capacity will be needed? The existing and proposed Level of Service should be discussed. Is the capacity of the existing facility adequate for the present traffic?

4. Prior Studies and Considerations. List the environmental-document approval date, field check dates, and all permit information. If a design exception was obtained, list its approval date also.

Include the following statement: *The proposed design is consistent with the approved environmental documentation*. If this is not true, briefly explain any minor deviations from the environmental report. Any significant deviations must be addressed in an Additional Information (AI) to the environmental document. If more right of way is required than is described in the environmental document, the designer should submit a written request to the Office of Environmental Services Environmental Policy Team to determine if Additional Information is required.

5. Design Data. Design data should at least include the project design criteria, functional classification, terrain, and design speed. Also include posted speed, access control, proposed roadway and shoulder widths, minimum and maximum right-of-way widths, obstruction-free-zone widths, or clear-zone widths, side slopes, and, if appropriate, structure clear-roadway width. A presentation similar to the following example should be shown.

Design Data

Project Design Criteria:	3R (Non-Freeway)
Functional Classification:	Rural Minor Arterial
Terrain:	Rolling
Design Speed:	55 mph
Posted Speed:	55 mph (90 km/h)
Access Control:	None
Number of Lanes and Widths:	2 @ 12 ft
Shoulders:	9 ft (8 ft HMA stabilized) 12 ft (9 ft HMA stabilized) in Guardrail Sections
Maximum Right-of-Way Width:	110 ft (60 ft north and 50 ft south)
Minimum Right-of-Way Width:	Existing 60 ft (30 ft north and 30 ft south)

Structure Clear Roadway Width: 42 ft
 Obstruction-Free Zone or Clear Zone: 20 ft
 Side Slopes: 4:1

- 6. Traffic Data. Data should include existing and projected AADT, DHV, and commercial vehicles. The data is available in the Engineer’s Report. A presentation similar to the following should be shown.

Traffic Data:

AADT (20__) _____ VPD
 AADT (20__) _____ VPD
 DHV (20__) _____ VPH
 Comm. Veh. _____ DHV
 _____ % AADT

- 7. Description of Right of Way. Discussion of right of way should include the area to be acquired in acres for both permanent and temporary right of way. Include a list of any business or residential relocations. Include a reference on the use of any temporary right of way such as Temporary Right of Way for Drive Construction.
- 8. Estimated Cost. The project costs should be shown. Estimated project costs for both the year in which the report is expected to be approved and the anticipated year of construction should be shown. The costs shall include preliminary engineering, right of way, and construction. Each of these costs should be shown separately in a tabular form as follows:

Project Cost Summary:

	Year: _____	Year*: _____
Preliminary Engineering:	\$ _____	\$ _____
Right of Way:	_____	_____
Construction:	_____	_____
Total Cost:	\$ _____	\$ _____

* _____ % annual inflation is used for projection

The preliminary engineering cost for a consultant-designed project will usually be the consultant's design fee. The in-house design cost is 10% of the construction cost, which includes environmental work, surveying, geotechnical, etc., in the preliminary engineering costs. The recommended inflation factor for the construction cost is 5% per year. The preliminary engineering and right-of-way costs should not be inflated for the projected year of construction.

9. Maintenance of Traffic During Construction. Discussion should include specific information pertaining to maintenance of traffic during construction. Discussion should include economic information used to determine whether to maintain traffic or use a detour. If the traffic maintenance plan changes as a result of the hearing, the Design Summary should be revised before requesting design approval.
10. Mitigation Measures. Most environmental considerations are outlined in the environmental document. Standard mitigation measures which recur on every project need not be reiterated within the Design Summary. Items such as seeding and erosion control are addressed adequately by the INDOT *Standard Specifications*.

Special project-specific mitigation measures should be mentioned in this section. If a fish and wildlife review is required, the designer should refer to the Fish and Wildlife Review Instructions and Form. Editable versions of such documents may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/. The discussion should include mitigation measures which were not mentioned in the environmental document or those which need further explanation. Wetland mitigation, woody revegetation, or time restrictions on tree clearing or channel work are examples of mitigation to include.

If there are no project-specific mitigation measures, this section should include a statement similar to the following: *No special mitigation measures are required for this project.*

11. Public Involvement. For the Draft Design Summary, a statement should be made indicating that an opportunity for a public hearing will be offered by advertising in local newspapers. Add that any opinions or comments received by the published deadline date will be added to this report. Afterwards, the Final Design Summary will incorporate all views expressed by the public.

For the final report, indicate one of the scenarios as follows:

- a. an opportunity for a public hearing was advertised in local newspapers with no requests forthcoming by the published hearing deadline of date ;

- b. an opportunity for a public hearing was advertised and a hearing was requested, but concerns were addressed on an individual basis; or
- c. a public hearing was held on date .

A summary and analysis of any views received concerning the proposed project is then developed. Comment sheets can be used to address all views or the comments can be added to the final section of the Design Summary. It is not considered responsive to state, “it is not part of the project scope,” or “it will be investigated.”

For a project that does not require a hearing because less than 0.5 ac of additional permanent right of way is required, a statement should be included similar to the following: *This project is exempt from public hearing requirements because less than 0.5 ac of additional permanent right of way is required.*

12. Miscellaneous.

- a. The preparer of the Design Summary should sign the document. Information to be included should be the consulting firm name, name of the preparer, and the date:

(Preparer's Name) _____ *(Date)* _____
(Consulting Firm Name)

- b. Attachments should include the following:
 - (1) a copy of the Field Check Minutes. Include documentation of any field check concerns that were resolved after the field check minutes were prepared;
 - (2) a copy of the Fish and Wildlife Review Memorandum (if applicable). See Section 7-2.05. A Fish and Wildlife Review is required for each project impacting rivers, streams, or wetlands, or one with special environmental mitigation measures;
 - (3) a copy of the memorandum indicating that the hearing requirements have been met, the Certification of Public Hearing Requirements and Socio-Economic-Ecological-Environmental Evaluations (SEE Certificate). See Section 7-2.05;
 - (4) a map showing the location of the project, and

- (5) a quadrangle map or other local map showing the location of the project.

Other information that is pertinent to the report may also be attached. The designer should check with the project manager for clarification on what to attach to the report.

7-2.03 Road Rehabilitation Project

For a road rehabilitation project, a brief Design Summary should accompany the design approval packet when it is submitted for design approval. The design approval packet typically includes the field check minutes, the pavement design letter, and a current cost estimate. For a project which requires a public information meeting, the Design Summary information should be made available at the time the meeting is requested, even if the project has not yet reached the design approval stage.

The Design Summary format for a road rehabilitation project should be as follows:

1. Title Block. Follow the guidelines for a full Design Summary (Section 7-2.02).
2. Location and Project Description. Describe the location of the project by showing the beginning and ending points as a distance from a given State route. Provide the project length and the county name. Briefly describe the type of pavement rehabilitation treatment that is being specified.

Do not discuss bridge rehabilitation work, as this is addressed in the Bridge Inspection Report. It is also unnecessary to address signage or lighting requirements.

3. Maintenance of Traffic During Construction. Indicate whether the mainline traffic will be maintained by crossovers or lane closures. Discuss any ramp closures that will occur. Address situations where staging of ramp closures may be required so that adjacent interchanges are not closed simultaneously. Include the approximate duration of each ramp closure and identify the proposed marked detour route. Describe any improvements that will be made to local roads or city streets that will be used as a marked or unmarked detour. Will a formal agreement with local governments be required?

If the project is located near a large urban or other heavily congested area, discuss any capacity constraints due to lane closures. Include the anticipated delays to the motoring public during peak traffic periods. Provide the approximate length of the queue and discuss user costs. Indicate whether a transportation management plan (TMP) was utilized in developing the traffic control plan (TCP) for the project. Discuss whether A-Plus-B bidding would be beneficial.

The items of discussion specified in this section are most often not required for a rural Interstate-route rehabilitation project, unless ramp closures or long delays are anticipated.

4. Resolution of Field Check Items or Scope Changes. Discuss any items which may have been left unresolved in the field check minutes or attach memoranda which may indicate how field check issues were resolved. Provide a brief, written documentation of any changes from the original project scope.
5. Design Exceptions. If applicable, list any Level One design elements for which a design exception was obtained and give the date of the design exception approval.
6. Attachments. The attachments to the Design Approval packet should include the following:
 - a. field check minutes;
 - b. pavement design letter; and
 - c. cost estimate.

The Scope/Environmental/Permit Compliance Certification Form should be submitted along with the Final Design Summary at the Design Approval stage.

7-2.04 Transmittal for Design Hearing

See Figure 7-2F, Document Transmittal to Office of Public Hearings and Request for Public Hearing – Cover Memorandum Form.

7-2.05 Attachments

The attachments that should be included with the Design Summary are as follows:

1. Figure 7-3A, Fish and Wildlife Review Memorandum, as described in Section 7-3.0.
2. If a public hearing is held, Figure 7-2G, Certificate of Public Hearing Held, should be attached. If a public hearing is afforded but not held, Figure 7-2H, Certificate of Public Hearing Afforded but Not Held, should be attached.
3. Figure 7-1A, Scope / Environmental Compliance Certification / Permit Application Certification.

Editable versions of all of the attachments listed above may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/.

7-2.06 Design Approval Process

In order to obtain Design Approval, it is necessary to have met the environmental requirements. The environmental requirements are considered met under any one of the conditions as follows:

1. Environmental Impact Statement is complete and the Record Of Decision (ROD) has been issued;
2. Environmental Assessment is complete and a Finding Of No Significant Impact (FONSI) is made by Federal Highway Administration; or
3. Categorical Exclusion is complete. If there is a line for Federal Highway Administration to sign, it must be so signed.

Once the Design Summary procedure is completed, the design approval packet should be transmitted to the Production Management Division director for approval. See Figure 7-2 I, Design Approval Packet Transmittal – Cover Memorandum form. An editable version of this document may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/.

7-3.0 FISH AND WILDLIFE REVIEW

The procedure for conducting a fish and wildlife review is as follows. Figure 7-3A, Fish and Wildlife Review Memorandum Form, should be used. An editable version of this document may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/.

1. A fish and wildlife review is required for each project that impacts streams shown on USGS quadrangle maps as either solid blue lines or intermittent blue lines, and that includes a structure with a crossing span of 20 ft or greater. Each project that impacts wetlands should also receive a fish and wildlife review.
2. The designer should complete the entire Fish and Wildlife Review Memorandum form before it is submitted for review.
3. The Office of Environmental Services' Environmental Policy Team leader will sign the form once he or she finds the content satisfactory.

4. The United States Fish and Wildlife Service's copy of the form should be sent to its Warsaw, IN, office if the project is in one of the counties as follows:

Allen	Lagrange	Porter
DeKalb	Lake	Pulaski
Elkhart	LaPorte	St. Joseph
Fulton	Marshall	Starke
Jasper	Newton	Steuben
Kosciusko	Noble	Whitley

The form for a project in a county not listed above should be sent to the USFWS Bloomington, IN, office.

**SCOPE / ENVIRONMENTAL COMPLIANCE CERTIFICATION /
PERMIT APPLICATION CERTIFICATION**

Route _____

Des No. _____

Bridge File: _____

Project Type: _____

Project Location: _____

[Click On One:]

- Scope Reviewed at Preliminary Plans Submittal
- Environmental Document Reviewed at Hearing Plans Submittal
- Environmental Document Reviewed Upon Design Approval
- All Permit Requirements Have Been Determined and Applications Have Been Made at Final Check Prints Submittal

[Click On Those Appropriate:]

1. I have reviewed the Scope of Work/Environmental Document. The design is consistent with the Scope of Work and statements made in the Environmental Document.
2. All mitigation measures stated in the Environmental Document and/or Permits are incorporated into the plans and specifications.
3. The Design Summary is accurate and consistent with the Environmental Document and Plans.
4. The following Permits are required and applications have been made.

<u>Permit</u>	<u>Required</u>		<u>Applied For</u>	
	Yes	No	Yes	No
FAA Navigable Airspace Permit.....				
IDEM Section 401 Water Quality Certification.....				
IDNR Construction in a Floodway Permit.....				
IDNR Lake Preservation Act Permit.....				
National Pollutant Discharge Elimination System (NPDES) Permit..				
Rule 5 Submission [Click on Yes box in “Applied For” column only after NOI has been sent.]				
U.S. Army Corps of Engineers Levee Permit				
U.S. Army Corps of Engineers Section 404 Permit Type: Individual Regional				
U.S. Coast Guard Bridge Permit (Section 9).....				
U.S. Coast Guard Construction, Dumping and Dredging Permit				

Printed Name _____

INDOT Reviewer's
Initials _____

Consultant _____

Date: _____

Signature _____

Date _____

DESIGN SUMMARY Route _____ Des _____

PRELIMINARY DRAFT DRAFT FINAL DESIGN SUMMARY
Road Bridge/Culvert Project

[Delete from the final Word document all copy shown herein which will not apply. Note that the route- and des-number blanks which appear at the top of each page should be filled in the document's header. Also delete from the final Word document all instructions such as these which appear italicized in brackets.]

Date:

Route:

Des. No.:

Project No.:

Structure File:

Over:

County:

Federal Oversight: Yes No

Location and Project Description

The project is located about _____ of _____ to about _____ of _____.

The existing roadway consists of ____ driving lanes each of which is about _____ in width. The present highway right-of-way width is about _____.

Need for Improvement

This road reconstruction project will

[Additional discussion in this area should be limited to significant county road relocations, less-than-desirable intersection sight distance, underground storage tanks, channel relocation, clearing of wooded/forest areas, significant historical/archaeological considerations, sidewalks, and design exceptions.]

DESIGN SUMMARY Route _____ Des _____

The proposed project will require an additional total of _____ of permanent right of way from the properties as follows:

Parcel	Property Owner(s)	Station	Offset
--------	-------------------	---------	--------

[Tabulate information here.]

Relocations of businesses or residents will not be required.

Relocations of businesses or residents will be required of the properties as follows:

Parcel	Property Owner(s)	Station	Offset
--------	-------------------	---------	--------

[Tabulate information here.]

The proposed project will not require additional temporary right of way.

The proposed project will require an additional total of _____ of temporary right of way from the properties as follows:

Parcel	Property Owner(s)	Station	Offset	Reason
--------	-------------------	---------	--------	--------

[Tabulate information here.]

Estimated Costs

	Year: _____	Year*: _____
Preliminary Engineering:	\$ _____	\$ _____
Right of Way:	_____	_____
Construction:	_____	_____
Total Cost:	\$ _____	\$ _____

* _____ % annual inflation is used for projection

Maintenance of Traffic During Construction

During construction, traffic will be

maintained by utilizing the existing roadway of _____.

placed onto an official detour over State-maintained routes, using portions of _____, and _____, adding _____ to a through trip. Local routes could be used by local traffic adding _____ to a through trip. Delay to emergency

DESIGN SUMMARY Route _____ Des _____

and public services would be about _____ minutes using the detours. The cost to the public to use the detours would be \$_____, assuming _____% use the local detour, or _____ AADT, during a _____-day detour, and \$_____ / _____ user cost.

Mitigation Measures

The following project-specific mitigation measures are required.

[Delete the following statements which do not apply.]

Woody revegetation will be placed in specific areas.

“Do Not Mow or Spray” signs will be posted along the right of way.

“Do Not Spray” signs will be posted along the right of way, since legume seed mixture will be used.

Other Specific Mitigation Measures:

[Add any other appropriate items, e.g., date restrictions on tree clearing or channel excavation.]

Public Involvement

No views or opinions other than those of the officials of the highway organizations and the affiliated workers have been expressed in this report.

[Of the following statements, delete those which do not apply.]

An opportunity for a public hearing will be offered through advertising in local newspapers. Any opinions or comments received by the published deadline will be attached to this report.

An opportunity for a public hearing will not be offered through advertising in local newspapers.

A public hearing will be scheduled. Any comments received at the public hearing will be attached to this report including their resolutions.

A public hearing will not be scheduled.

DESIGN SUMMARY Route _____ Des _____

Design Engineer

_____ : _____

Attachments: *[Delete those which do not apply.]*

- Field Check Report
- Fish and Wildlife Meeting Report
- Public Hearing Transcript
- Public Hearing Comments and Resolutions

DESIGN SUMMARY Route _____ Des _____

PRELIMINARY DRAFT DRAFT FINAL DESIGN SUMMARY
Roadway Lighting Roadway Signs Signalization Project

[Delete from the final Word document all copy shown herein which will not apply. Note that the route- and des-number blanks which appear at the top of each page should be filled in the document's header. Also delete from the final Word document all instructions such as these which appear italicized in brackets.]

Date:

Route:

Des. No.:

Project No.:

County:

Federal Oversight: Yes No

Location and Project Description

The project is located about _____ of _____ to about _____ of _____.

The existing roadway consists of ____ driving lanes each of which is about _____ in width. The present highway right-of-way width is about _____.

Need for Improvement

This project will

[Additional discussion in this area should be limited to less-than-desirable intersection sight distance, sidewalks, and design exceptions.]

Prior Studies and Considerations

DESIGN SUMMARY Route _____ Des _____

Environmental Documentation: This project meets the requirements of a Categorical Exclusion under the Federal Register of August 28, 1996, Section 717.117(C)8.

Field Check Held:

Public Hearing: This project meets the INDOT Public Involvement Procedures for project development approved by the FHWA

Permits and Agreements: FAA Navigable Airspace Permit –
 Railroad –
 Utilities –

Description of Right of Way

The proposed project will not require additional permanent right of way.

The proposed project will require an additional total of _____ of permanent right of way from the properties as follows:

Parcel	Property Owner(s)	Station	Offset
--------	-------------------	---------	--------

[Tabulate information here.]

Relocations of businesses or residents will not be required.

Relocations of businesses or residents will be required of the properties as follows:

Parcel	Property Owner(s)	Station	Offset
--------	-------------------	---------	--------

[Tabulate information here.]

The proposed project will not require additional temporary right of way.

The proposed project will require an additional total of _____ of temporary right of way from the properties as follows:

Parcel	Property Owner(s)	Station	Offset	Reason
--------	-------------------	---------	--------	--------

[Tabulate information here.]

Estimated Costs

DESIGN SUMMARY Route _____ Des _____

Preliminary Engineering: \$ _____

Right of Way: _____

Construction: _____

Total Cost: \$ _____

Design Engineer

_____: _____
Attachment: Field Check Minutes

DESIGN SUMMARY
(Roadway Lighting Replacement)

Date _____

Route: _____

Des. No.: _____

Project No.: _____

County: _____

Federal Oversight: Yes No [Click on appropriate box.]

Location and Project Description

This project involves the modernization of roadway lighting on _____, about _____
 _____ of _____ to about _____ of _____.

Existing Conditions

The existing roadway lighting system consists of conventional lights with pole heights of 15 m (50 ft) or less and highmast poles with pole heights of 24 m (80 ft) or more. This system was installed before July 1, 1990. The conductors were made from aluminum material. The highmast poles are equipped with top latch devices.

Need for Improvement

The conventional pole breakaway supports do not meet the AASHTO criteria for small vehicular crash tests. This policy became effective July 1, 1990. Aluminum conductors tend to corrode when they come in contact with moisture. This corrosion may cause lighting outages. Top latch devices on highmast poles sometimes do not sit properly and the ring cannot be lowered. A bottom latch system is installed to correct this problem. No right-of-way will be required for this project.

Route _____ Des. No. _____

Prior Studies and Considerations

Environmental Documentation: This project meets the requirements for a Categorical Exclusion under 23 CFR 771.117(c)(8).

Public Hearings: This project is in accordance with the INDOT Public Involvement Procedures for Project Development approved by FHWA.

Permits and Agreements:

Environmental Permit Required	Date Received
_____	_____
_____	_____
_____	_____
Railroad Agreement	_____
Utility Agreements Required	_____
_____	_____
_____	_____
_____	_____
_____	_____

[If not received yet, enter Pending.]

Cost

The estimated cost of this project is \$ _____.

Design Engineer

Sign and Lighting Design Unit Supervisor

_____ : _____

Attachment: [Click on one.]

Yes No Field Check Report

DESIGN SUMMARY
(Roadway Sign Replacement)

Date _____

Route: _____

Des. No.: _____

Project No.: _____

County: _____

Federal Oversight: Yes No [Click on appropriate box.]

Location and Project Description

This project involves the modernization of signage and sign structures on _____, about _____ of _____ to about _____ of _____.

Existing Conditions

The existing regulatory and warning sheet signs and panel guide signs are at least _____ and _____ years old, respectively. U-channel posts for sheet signs lack horizontal and/or vertical clearance, and some have been installed back-to-back. Overhead sign structures have a vertical clearance of less than 5.2 m (17 ft). Anchor bolts on the structures have been badly deteriorated. The sign supports are within slope grading areas.

Need for Improvement

The signs have lost some of their retroreflectivity and do not meet minimum retroreflectivity requirements. U-channel posts on back-to-back installation will not meet the AASHTO criteria for small vehicular crash tests. Sheet signs must maintain minimum horizontal and vertical clearance based on the type of roadway for which they are installed. Overhead sign structures must have a minimum 5.2-m (17-ft) vertical clearance. No right-of-way will be required for this project.

Route _____ Des. No. _____

Prior Studies and Considerations

Environmental Documentation: This project meets the requirements for a Categorical Exclusion under 23 CFR 771.117(c)(8).

Public Hearings: This project is in accordance with the INDOT Public Involvement Procedures for Project Development approved by FHWA.

Permits and Agreements:

Environmental Permit Required	Date Received
_____	_____
_____	_____
_____	_____
Railroad Agreement	_____
Utility Agreements Required	_____
_____	_____
_____	_____
_____	_____
_____	_____

[If not received yet, enter Pending.]

Cost

The estimated cost of this project is) \$ _____.

Design Engineer

Sign and Lighting Design Unit Supervisor

_____ : _____

Attachment: [Click on one.]

Yes No Field Check Report

**DESIGN SUMMARY
(Signalization Project)**

Date _____

Route: _____

Des. Nos.: _____, _____, _____,
 _____, _____, _____

Project No.: _____

County: _____

Federal Oversight: Yes No [Click on appropriate box.]

Commission No.: _____ at _____ of _____

Purpose and Scope

Existing signal(s) must comply with current standards. Existing equipment is old and requires extensive maintenance. Improvement will include the following: [Click on appropriate boxes.]

- | | | |
|-----|----|---|
| Yes | No | Installation of new signal heads and wiring |
| Yes | No | Updating closed-loop system signal controller(s) and cabinet(s) |
| Yes | No | Replacing signal structures |
| Yes | No | Interconnecting signals |
| Yes | No | Minor channelization |

Timing capabilities of the new signal controller(s) will provide smoother traffic progression and travel patterns; as a result, the overall level of service of the intersection should improve. All timing calculations will be performed by the State of Indiana. The _____ District, in supplying the locations information shown above, has verified that signalization is warranted for them. Pedestrian signals and sidewalk ramps are included where feasible or necessary. There will be no individuals, families, or business establishments displaced. No right-of-way is required.

Prior Studies and Considerations

Environmental Documentation: This project meets the requirements for a Categorical Exclusion under 23 CFR 771.117(c)(8).

Public Hearings:

This project is in accordance with the INDOT Public Involvement Procedures for Project Development approved by FHWA.

Permits and Agreements:

Environmental Permit Required

Date Received

Railroad Agreement

Utility Agreements Required

Date Received

[If not received yet, enter Pending.]

Maintenance of Traffic

During construction, traffic will be maintained at all times. The use of signs, cones, barrels, flashing arrow signs, markings, and flaggers will be used as necessary in compliance with the standards.

Cost

The estimated total cost of this work is \$ _____ .

 Design Engineer

 Signal Design Unit Supervisor

_____ : _____

Attachment: [Click on one.]

Yes No Field Check Report

PUBLIC HEARING / OPPORTUNITY REQUEST

, 20

MEMORANDUM

TO: Public Hearings Office Manager
Production Management Division

FROM: Project Manager

INDOT location or consultant

Route:

Des. No.

Bridge File:

PE Project:

R/W Project:

CN Project:

Location: of

County:

Description:

Transmitted herewith are three sets of Design Hearing Plans, one set of cross sections, and three copies of the Design Summary Report for your use.

Yes No Please advertise for an opportunity for a hearing.
Yes No Please set up for a hearing.

:

cc: Roadway Services Manager or Structural Services Manager,
or District Design Manager
file



INDIANA DEPARTMENT OF TRANSPORTATION
100 North Senate Avenue
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Indianapolis, Indiana 46204-2216
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MITCHELL E. DANIELS, JR., Governor
THOMAS O. SHARP, Commissioner

Writer's Direct Line

Date _____

CERTIFICATION OF PUBLIC HEARING REQUIREMENTS AND
SOCIO-ECONOMIC, ECOLOGICAL, AND ENVIRONMENTAL EVALUATIONS

Route: _____ Des. No.: _____ Project No.: _____

Project Location: _____ of _____

Project Description: _____

The Indiana Department of Transportation hereby certifies that a public hearing relative to the subject project was held at _____ on _____, in compliance with Title 23, Code of Federal Regulations, Section 771.111(h) entitled "Early Coordination, Public Involvement and Project Development," and the *Indiana Public Involvement / Public Hearing Procedures for Federal-Aid Project Development* approved by the Federal Highway Administration, U.S. Department of Transportation, on July 8, 1997.

The Indiana Department of Transportation further certifies that the economic and social effects of the location, its impact on the environment, and the consistency with the goals and objectives of urban planning, as has been promulgated by the community have been considered.

Signed _____

Public Hearings Office Manager
Local Programs Division

Signed _____

Environmental Services Office Administrator
Production Management Division



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 Indianapolis, Indiana 46204-2216
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MITCHELL E. DANIELS, JR., Governor
 THOMAS O. SHARP, Commissioner

Writer's Direct Line

Date _____

CERTIFICATION OF PUBLIC HEARING REQUIREMENTS AND
 SOCIO-ECONOMIC, ECOLOGICAL, AND ENVIRONMENTAL EVALUATIONS

Route: _____ Des. No.: _____ Project No.: _____

Project Location: _____ of _____

Project Description: _____

The Indiana Department of Transportation hereby certifies that an opportunity for a public hearing relative to the subject project has been afforded in compliance with Title 23, Code of Federal Regulations, Section 771.111(h) entitled "Early Coordination, Public Involvement and Project Development," and the *Indiana Public Involvement / Public Hearing Procedures for Federal-Aid Project Development* approved by the Federal Highway Administration, U.S. Department of Transportation, on July 8, 1997. No hearing requests were received by a designated deadline of _____.

The Indiana Department of Transportation further certifies that the economic and social effects of the location, its impact on the environment, and the consistency with the goals and objectives of urban planning, as has been promulgated by the community have been considered.

Signed _____

Public Hearings Office Manager
 Local Programs Division

Signed _____

Environmental Services Office Administrator
 Production Management Division

DESIGN APPROVAL PACKET TRANSMITTAL

Date _____

MEMORANDUM

To: _____
Director, Production Management Division

Thru: _____
Manager, Roadway Services or Structural Services

Thru: _____
Reviewer

Thru: _____
Project Manager

From: _____
Designer

Re: Design Approval

Route: _____
Des. No.: _____
PE Project No.: _____
R/W Project No.: _____
CN Project No.: _____
Project Location: _____
Project Description: _____

Transmitted herewith is the design approval packet for the above referenced project. All environmental and public hearing requirements have been met.

Design Approval Packet Approved: _____
Director, Production Management Division
Date: _____

_____ : _____

cc: _____

FISH AND WILDLIFE REVIEW
Environmental Impact Statement or Environmental Assessment

, 20

MEMORANDUM

TO:

Environmental Policy Administrator
Production Management Division

FROM:

Designer

INDOT location or consultant

SUBJECT: Fish and Wildlife Review

Route:

Des. No.:

DNR No.:

Bridge File:

Project No.:

Over:

County:

The items reviewed are listed below.

Existing R/W width:

Maximum R/W width:

Project length:

Incidental construction length:

Bridge length:

Change in horizontal alignment:

Change in vertical alignment:

Below-low-water work in actual flow channel under the bridge (piles, piers, channel clearing):

Channel relocation:

Other:

Temporary R/W width beyond permanent R/W limits at the stream crossing:

Distance of vegetation clearing from bridge coping to construction limits

NE Quadrant:

SE Quadrant:

SW Quadrant:

NW Quadrant:

Riprap extended below low water elevation? Yes No

Erosion control methods:

Fishpool/sediment trap:

Description of wetlands involved:

Detour? Yes No

Temporary runaround? Yes No

Work causeway:

Seed mixtures:

Woody revegetation:

Mitigation measures:

Concur: _____
Environmental Policy Administrator

Date

:

cc: , IDNR
, USFWS
, IDEM

File