

Chapter Twelve

PHASE I  
ENGINEERING REPORTS

BUREAU OF DESIGN AND ENVIRONMENT MANUAL



**Chapter Twelve**  
**PHASE I ENGINEERING REPORTS**

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## Chapter Twelve

# PHASE I ENGINEERING REPORTS

Chapter 11 discusses the goals and objectives of Phase I studies for projects administered by the Department. Chapter 12 discusses the content and format of Phase I engineering reports.

### 12-1 GENERAL

#### 12-1.01 Purpose of Phase I Engineering Reports

The purpose of preparing reports for the projects in the annual and multi-year programs is to document the coordinated efforts of each district on why the Department is proposing an improvement and how the improvement will be designed to satisfy a need. Depending on the magnitude, complexity, and type of improvement proposed (e.g., new construction, reconstruction, 3R), the size of a Phase I engineering report and appropriate exhibits can vary from 10 or 20 pages to a few hundred pages.

These reports are more than just a paperwork requirement and have been created to ensure that a proposed improvement has been carefully evaluated, that appropriate policies and criteria are being used, that the design reflects an assessment of environmental concerns and, if required, that public involvement has occurred. These reports should be able to stand on their own and document all major design decisions and exceptions to policy.

#### 12-1.02 Applicability of Report Types

Each type of Phase I study requires a corresponding report to document the findings of the investigation. Section 11-1.01 briefly identifies the study objectives and application for different types of Phase I studies. The items used to determine each type of Phase I engineering report are described below:

1. Corridor Report. The funding and scope of engineering (e.g., “major” Federally-funded project on new alignment) will determine when to prepare a Corridor Report. The following will apply to a Corridor Report:
  - a. Funding. These projects involve Federal funding for construction or the desire to obtain future Federal reimbursement of construction costs.
  - b. Engineering. Typically, these projects involve significant lengths of highway on new location with alternative corridors available for the proposed improvement.
  - c. Typical Projects. Typical projects include new freeways, alternative bypasses around an urban area, or expressway designs with a considerable length of proposed highway on new locations.

- d. \*Environment. Because projects are major and are Federally funded, environmental aspects are addressed in a separate section of the Corridor Report or in the first tier of a tiered EIS.
- e. Review. The BDE Project Development and Implementation Section reviews engineering information in the Corridor Report. The BDE Environment Section reviews the environmental information.

*\*Note: Approval or concurrence of any environmental issues or approval of separate environmental documents is accomplished through coordination with the BDE Environment Section.*

2. Feasibility Study Report. A Feasibility Study, which is similar in scope and purpose to a Corridor Study, is typically prepared to assess whether or not a proposed highway improvement warrants further study or additional funding for Phase I engineering costs. Chapter 11 provides a description of some of the typical feasibility studies. The following other types of investigations are applicable:

- study of major drainage alternatives,
- comparison of proposed interchange types at different locations, and
- HOV studies versus other transportation alternatives.

The Feasibility Study Report documents the findings and recommendations of the study and, in many cases, may be used as a substitute for a Corridor Report. Reviews are essentially the same as for a Corridor Report and concurrence in the recommendations is by the Bureau Chief of Design and Environment.

3. Design Report. The funding and scope of engineering (e.g., “major” Federally-funded project on new alignment) will determine when to prepare a Design Report. The following will apply to a Design Report:
  - a. Funding. These projects involve Federal funding for construction or the desire to obtain future Federal reimbursement of construction costs.
  - b. Engineering. Typically, these projects involve significant lengths of highway on new location and include an analysis of potential alternative locations and a detailed design of each alternative.
  - c. Typical Projects. Typical projects include new freeways, new bypasses around an urban area within selected corridor, or expressway designs with considerable length of proposed highway on new locations.
  - d. Environment. Because projects are major and are Federally funded, environmental aspects are addressed in a separate document (i.e., EA or EIS). Also, see Note in Item 1.

- e. Review. The BDE Project Development and Implementation Section reviews alignment design and engineering features in the Design Report. The BDE Environment Section reviews the environmental information (EA or EIS).
4. Combined Design Report. The funding and scope of engineering (e.g., “major” Federally-funded project on existing alignment) will determine when to prepare a Combined Design Report. The following will apply to a Combined Design Report:
    - a. Funding. These projects involve Federal funding for construction or the desire to obtain future Federal reimbursement of construction costs.
    - b. Engineering. Typically, these projects involve major projects using most or all of an existing highway alignment and right-of-way.
    - c. Typical Projects. The corridor or location is predetermined due to the design of the proposed project. Typical projects include:
      - proposed expressway designs using much of the existing highway alignment;
      - the upgrading of existing urban arterial or collector highways to add through lanes and/or the addition of a median or a change in median type;
      - the creation of a one-way couple;
      - the addition of an interchange;
      - a change in type for an existing interchange;
      - the reconstruction of an existing rural highway with a considerable number of changes to the alignment, profile, and front slopes and back slopes; or
      - the reconstruction of an existing freeway or expressway to increase capacity by adding lanes and/or to increase safety.
    - d. Environment. Depending upon the anticipated environmental issues involved, the project could be a Group I or II CE, EA, or EIS. If the proposed improvement qualifies as a Group II CE project, the environmental documentation will be included in the Combined Design Report as a separate section. If not, a separate environmental report (EA or EIS) is prepared. Also, see Note in Item 1.
    - e. Review. The BDE Project Development and Implementation Section reviews the engineering information, including the cross-section design presented in the Combined Design Report. The BDE Environment Section reviews the environmental information (EA or EIS).

5. Project Report. Only the scope of engineering (e.g., “minor” State- or Federally-funded project using existing alignment) will determine when to prepare a Project Report. The following will apply to the Project Report:
- a. Funding. These projects involve Federal or State funding for construction. The design of the project would allow it to be programmed for either Federal or State-only funding.
  - b. Engineering. Typically, these projects involve construction projects using an existing highway alignment, right-of-way or, possibly, some minor relocations.
  - c. Typical Projects. Typical projects may include:
    - widening and resurfacing or resurfacing only of existing lanes,
    - bridge rehabilitation or total bridge replacements,
    - reconstruction of an existing intersection with minor right-of-way impacts, or
    - other 3R projects which may involve an occasional curve relocation or profile changes.
  - d. Environment. These projects typically qualify as Group I or II CE and, therefore, the environmental documentation is included in the Project Report. Also, see Note in Item 1.
  - e. Review. The BDE Project Development and Implementation Section reviews the Project Report. The BDE Environment Section reviews the environmental information (EA or special analyses and studies that may be necessary to address environmental compliance requirements for specific types of resources or “potential for unusual circumstances”) and comments are passed on to Regional Field Engineers.
6. State Improvement Report. The funding and scope of engineering (e.g., “major” State-funded project) will determine when to prepare a State Improvement Report. The following will apply to a State Improvement Report:
- a. Funding. A decision has been made that no Federal funds will be used for planning, right-of-way, or construction of the project.
  - b. Engineering. Typically, these projects involve a major construction project that may or may not use an existing highway alignment or street.
  - c. Typical Projects. Typical projects will include:
    - upgrading of existing urban arterial or collector highways to add through lanes and/or the addition of a median or change in median type;

- creation of a one-way couple;
  - addition of an interchange;
  - change in type for an existing interchange; or
  - reconstruction of an existing intersection with significant right-of-way impacts.
- d. Environment. These projects typically require environmental documentation to comply with State regulations and Federal permits as identified in Chapters 26 and 28. Include any documentation of public involvement coordination in the State Improvement Report (SIR). Also, see Note in Item 1.
7. Pavement Preservation Policy (3P) Report. The funding and scope of engineering (e.g., “minor” State- or Federally funded project) will determine when to prepare a 3P Report. The following will apply to a 3P project:
- a. Funding. These projects may or may not involve Federal funding for construction.
  - b. Engineering. These projects rehabilitate existing paved roadways to prevent further pavement deterioration by repairing and resurfacing existing pavements. Avoid projects with significant severe roadside hazards where a 3R improvement would be more appropriate.
  - c. Typical Projects. The emphasis of this program is to improve State highway pavements with few or no non-pavement items. Focus is on rural marked routes but urban marked routes and high-volume unmarked routes may be acceptable on a priority basis. Rural projects should be at least 1 mile (1.6 km) in length. No geometric revisions or pavement widening are permitted and acquisition of right-of-way is not allowed except when required to implement a countermeasure to mitigate Five Percent Report locations. However, 1 ft (300 mm) wide shoulder strips are required for rural cross-sections if no paved shoulders exist. Structurally deficient or functionally obsolete bridges should be gapped and addressed through other programs. Avoid projects with significant severe roadside hazards where a 3R improvement would be more appropriate.
  - d. Environment. These projects will usually qualify as Group I CE or occasionally as a Group II CE. Also, see Note in Item 1.
  - e. Review. Engineering information will be developed by the district using the standard 3P Report form BDE 2564 (fill in the blanks, check-off items, and attachments) and is discussed at a district coordination meeting. Occasionally, a special analysis may be required to address environmental compliance requirements. The district is responsible for compliance with engineering policies.

8. Surface Maintenance at the Right Time (SMART) Report. The funding and scope of engineering (e.g., “minor” State- or Federally funded project) will determine when to prepare a SMART Report. The following will apply to a SMART Report:
  - a. Funding. These projects may or may not involve Federal funding for construction.
  - b. Engineering. These projects are maintenance-type improvements to prevent further pavement deterioration by repairing and resurfacing existing pavements. Roadside hazards should have been previously addressed with a 3R improvement.
  - c. Typical Projects. The emphasis of this program is to improve State highway pavements with few or no non-pavement items. The focus is on rural marked routes but urban marked routes and high-volume unmarked routes may be acceptable on a priority basis. Rural projects should be at least 1 mile (1.6 km) in length. No geometric revisions, no pavement widening, and no shoulder work are permitted, and acquisition of right-of-way is not allowed except when required to implement a countermeasure to mitigate Five Percent Report locations. Structurally deficient or functionally obsolete bridges should be gapped and addressed through other programs. Avoid projects with roadside hazards where a 3R improvement would be more appropriate.
  - d. Environment. These projects almost always qualify as Group I CE. Also, see Note on Item 1.
  - e. Review. The district will develop engineering information using the standard SMART Report form BDE 2565 (fill in the blanks, check-off items, and attachments), and the project is discussed at a district coordination meeting. Occasionally, a special analysis may be required to address environmental compliance requirements. The district is responsible for compliance with engineering policies.

### 12-1.03 Functions

Phase I reports provide a systematic methodology for identifying and evaluating location, design, and environmental issues. The report provides a medium for documenting the decision-making process and communicating the reasoning for the proposed improvement need. In this capacity, the report fulfills many functions, including:

1. Project Summary. Phase I reports summarize the coordinated efforts of both the district and Central Offices in determining the need for a project and how it will be designed.
2. Public Involvement. Phase I reports provide an organized document that can be used by the district to discuss improvements with the public and to ensure that the proposed project has been planned consistent with safety and cost-effective objectives.

3. Plan Preparation Guide. A Phase I report provides a reference guide for preparing construction plans and ensures that certain prerequisite design and environmental requirements have been met. This aids and expedites plan preparation, scheduling, environmental coordination, and construction.

#### **12-1.04 Objectives**

All Phase I engineering reports should meet the following general objectives:

- Present the study findings in clear, unambiguous language. As practical, the writing should be understandable to the general public.
- Do not duplicate information documented in other reports (e.g., environmental documents, Transportation Management Plan, Geotechnical Report, Preliminary Drainage Report, Bridge Condition Report). The Phase I Engineering Report should reference or summarize these other documents.
- Ensure all relevant information is included or referenced in the report so that the reader can understand the reasons for the design decisions.
- Ensure the level of detail in the report is commensurate with the conceptual objective of a Phase I study; i.e., limit the information to that needed to make major decisions.

#### **12-1.05 Content**

A Phase I engineering report should document the following, as applicable:

1. Prior Studies. List and analyze any prior studies relevant to the undertaking.
2. Project Need. Include all the necessary information, technical reports, and other materials to clearly demonstrate the study has adequately demonstrated the need for safe, fast, and efficient transportation. In addition, document the construction cost, traffic benefits, and public services provided by the highway improvement.
3. Local Conditions and Improvements. Briefly describe the highway/pavement conditions adjacent to the proposed action and any plans for future improvements. Coordinate these items between districts for route continuity when district boundary lines fall between logical termini.
4. Improvement Alternatives. Describe the alternatives considered and discuss the anticipated social, economic, and environmental effects of the alternatives, emphasizing the significant differences and the supporting reasons for the proposed location or design. In addition, analyze the relative consistency of each alternative with the goals and objectives of any adopted local or regional urban plan. Depending on the type of study, also include the following information:

- a. Corridor Studies. For Corridor Studies (see Section 11-4), describe the termini, the general type of facility, the nature of the service that the highway is intended to provide, and other major features of the alternatives.
  - b. Design Studies. For Design Studies (see Section 11-5), describe the critical elements such as safety and crash patterns on the existing route, applicable design criteria (e.g., new construction, reconstruction, 3R), traffic volumes, number of traffic lanes, other cross-section elements, access control/access management features, method of locating horizontal alignment, vertical profile considerations, right-of-way requirements, pedestrian considerations, intersection designs, interchange designs, hydraulic information, bridges, and other structures.
5. Environmental Issues. Summarize or reference the discussion in the environmental document on the anticipated social, economic, and environmental effects as discussed in Part III “Environmental Procedures.” Identify the adverse effects, develop appropriate measures to avoid, minimize, or mitigate these effects, and estimate the associated costs.
  6. Policy and Design Exceptions. List any major design exceptions from IDOT policies and design criteria (e.g., engineering, environmental) together with supporting reasons, pertinent minutes of district coordination meetings, and relevant documentation of BDE coordination with FHWA, if appropriate. For geometric design exceptions, see Chapter 31.
  7. Maps and Drawings. Include the appropriate maps or drawings of the location or design for which approval is requested.
  8. Summary of Public Involvement. Provide a summary and analysis of the comments received from the public involvement process (see Chapter 19) and from the environmental analyses (see Part III “Environmental Procedures”) based on:
    - coordination with the State’s resource, recreational, planning, and historic agencies; and
    - those Federal and local agencies, public officials, and public advisory groups that IDOT knows or believes are interested in and/or affected by the proposed action.
  9. Costs and Schedules. Express the costs in monetary, numerical, or qualitative terms. Estimate costs and tentative schedules for right-of-way acquisition and construction. For major projects requiring more than one construction season, provide cost estimates for individual usable segments for construction staging. The multi-year highway improvement program can then be developed using the individual segment costs rather than an estimated proportional cost of the total project.

If cost breakdowns for individual segments or improvement alternatives are necessary, use multiple columns on the cost-estimate sheet or provide multiple cost estimate

sheets. For all cost estimates, indicate the base year and separate all construction, right-of-way, utility adjustment, and consultant PE costs to facilitate the programming of these items.

See Section 12-4 for more information on cost estimates.



## 12-2 REPORT FORMAT FOR MAJOR STUDIES

Section 12-2 presents the detailed outline format that can be used for a Corridor Report, Design Report, Combined Design Report, or State Improvement Report. Section 12-3 discusses specific requirements for report content of major and minor studies. Use the following format, as applicable, when developing reports for major studies:

### I. INTRODUCTION

- A. Description and Location of Project
- B. History of Project
- C. Discussion of Design Criteria Used (e.g., new construction, reconstruction, 3R) and Highway Types Considered

### II. PURPOSE AND NEED FOR THE IMPROVEMENT

- A. Conditions on Existing Highway Network
  - 1. Typical sections
  - 2. Extent of access control/access management
- B. Existing Traffic and Capacity Deficiencies
- C. Five Percent Report Information
- D. Alignment and Profile Deficiencies
- E. Corridor Studies

### III. EXISTING SETTINGS OR CONDITIONS

- A. Description of Project Area
- B. Project Limits (logical termini)
- C. Land Use (fire districts, school bus, and mail routes)
- D. Environmental Resources
- E. Sensitive Environmental Areas
  - 1. Parks and recreational areas (Section 4(f) properties)
  - 2. Floodplains and waterways
  - 3. Wetlands
  - 4. Historical sites
  - 5. Special waste sites
  - 6. Endangered species locations
  - 7. Natural areas
  - 8. Biologically significant streams

### IV. ALTERNATIVES CONSIDERED

- A. Transportation Demand Strategies
- B. Mass Transit (if applicable)
- C. Proposed Highway Design Guidelines

1. Typical sections
  2. Design speed
    - a. Horizontal alignment
    - b. Vertical profile
  3. To remain in place criteria
  4. Proposed access control or access management
  - D. No Action (continued maintenance)
  - E. Widen Existing Roadway or Major Reconstruction of Existing Roadway
    1. Urban arterial improvement
    2. Expressway design
  - F. Construction on New or Existing Locations
    1. Freeway design
    2. Expressway design
    3. Bypass around towns
    4. New rural two-lane highway
  - G. Description of Intersections or Interchanges
    1. Locations and types
    2. Design features
    3. Level of service achieved
    4. Signal progression (if applicable)
    5. Uniformity of types
- V. DESCRIPTION AND ANALYSIS OF ALTERNATIVES STUDIED IN DETAIL
- A. Attainment of Purpose and Need
  - B. Traffic Service to Region
  - C. Engineering Considerations Including Aesthetics (e.g., combining horizontal and vertical alignments)
  - D. Important Social, Economic, and Environmental (SEE) Effects (mainly reference)
  - E. Utility Involvements/Drainage Considerations
  - F. Possible Mitigation Measures
  - G. Discussion of Costs and Benefits
  - H. Priority of Implementation
- VI. COORDINATION ACTIVITIES
- A. Local Governments/Metropolitan Planning Organizations
  - B. State and Federal agencies
  - C. Property Owner Considerations
- VII. PUBLIC INVOLVEMENT ACTIVITIES
- A. Advisory Committee and Working Groups (if desirable)
    1. Public interest groups
    2. Agricultural groups

- 3. Growth and development groups
- 4. Public officials groups
- B. Informational Meetings/Property Owner Contacts
- C. Design Public Hearing (open house meeting)
- D. Analysis of Correspondence
- E. Commitments

#### VIII. CONCLUSIONS/RECOMMENDATIONS

- A. Recommended Design Alternative
- B. Supporting Reasons for Alignment Recommendation and/or Design Features (be specific)
- C. Discussion of Design Exceptions
- D. Identification of Criteria for Implementing Next Step/Phase of Study
- E. Proposed Interim Improvements or Stage Construction (if applicable)

#### IX. APPENDICES (Usually produced in an 11 in x 17 in format)

- A. Quad Maps and County Maps
- B. Proposed Typical Sections
- C. Schematic Drawings Showing Traffic Data
- D. Aerial Mosaics Showing Alternatives and Important Cultural Features
- E. Environmental Survey Data Shown on Aerial Mosaics, As Needed
- F. Topographic Mapping, As Needed, Showing Alternatives
- G. Oblique Photographs and Photomontages (perspective view of a proposed highway)
- H. Schematics of Interchange Designs and Approved Interchange/Intersection Design Studies (IDSs)

For major projects, prepare the Appendix as a separate document using 11 in x 17 in sheets. In this case, a separate Appendix improves the readability of the Report, allows design information to be examined more easily, and simplifies the conveyance of information to the design and land acquisition personnel.



### 12-3 SPECIFIC PHASE I REPORTS

Major studies should follow the detailed outline format described in Section 12-2. Section 12-3 presents information specific to the content of individual Phase I engineering reports.

#### 12-3.01 Corridor Reports

A corridor study is developed according to the guidance in Section 11-4. In addition to the information listed in Section 12-2, also include the following in the Corridor Report:

1. Structure of Report. Lay out the Corridor Report in the format as shown in Section 12-2. In addition, consider the following:
  - a. Table of Contents. Provide a table of contents for the report that should list each separate report section, the figures and tables, and appendices.
  - b. Page Numbers. Consecutively number the pages in the report including all exhibits and figures (i.e., do not renumber each major section).
  - c. Exhibits. Show all exhibits as figures with figure numbering for easy referencing. Place figures, small maps, and tables at the back of the report and reference them in the text. Place large figures (11 in x 17 in format) in an Appendix to the report. Removing the figures and tables from the text allows for easier reading and review of the report, quicker access to a desired page number, and more effective positioning and access of materials that are used to support the text.
  - d. Cross References. Provide cross-references to information provided elsewhere in the report (e.g., other sections, figures, appendices).
2. County Maps. Use 11 in x 17 in sheets and a scale of either 1 in = 1 mile (1:60,000 metric) or 1 in = 2 miles (1:120,000 metric). Indicate the following on these maps:
  - all corridors studied;
  - all acceptable corridors; and
  - existing and proposed land use including:
    - + flood plains/floodways,
    - + school districts,
    - + fire protection districts,
    - + recreational areas and lakes (existing and proposed),
    - + airports,
    - + historic sites,
    - + cemeteries,
    - + archaeological sites (only show on internal use maps),
    - + Special Waste Sites (CERCLIS, RCRA and Brownfield sites, etc.),
    - + wetland sites/natural resources, and
    - + other pertinent information.

3. USGS Quadrangle Maps. Use 11 in x 17 in sheets and a scale of 1 in = 2000 ft (1:24,000 metric). This larger scale is used to provide more detail on the project and to show topography.
4. Traffic Data. Determine design year ADT volumes for all acceptable corridors. This data is used during the corridor selection stage. Prepare ADT volume data for other highways within the area of influence and determine the impacts the improvement will have on the entire system of highways in the area.
5. Corridor Report Discussion. Discuss the following items:
  - a. General Description. Describe the following for each alternative:
    - purpose and need of the project,
    - logical termini,
    - general type of facility,
    - nature of service which the highway is intended to provide, and
    - other major features.
  - b. Prior Studies. Discuss any prior studies relevant to the undertaking (e.g., feasibility studies) and a reaffirmation of the need for the improvement.
  - c. Eliminated Alternatives. Discuss the alternative corridors considered but not studied further, and describe the reason(s) the alternatives were discounted. Identify and discuss the environmental factors (as discussed in Part III "Environmental Procedures") that were considered in the preliminary investigation but were not considered significant determinants among the alternatives.
  - d. Compatibility with Highway System. Discuss the compatibility of the alternatives studied with the existing street and highway plans or related comprehensive plans. Where these plans do not exist, discuss the extent of coordination with local officials concerning highway needs.
  - e. Compatibility with Other Plans. Discuss the compatibility of the alternatives studied with the plans and objectives of all agencies affected by the improvement.
  - f. Advantages and Disadvantages of Final Alternatives. Discuss the advantages and disadvantages of the final acceptable corridors, including the no-action alternative. Discuss the issues of primary concern to the Department such as construction costs, right-of-way acquisition, highway maintenance, traffic operations, type of access control, and any other pertinent engineering aspects (see Section 11-4) of the improvement. Also, when applicable, discuss other transportation facilities in the corridor.
  - g. Environmental Considerations. Discuss the socio-economic and environmental advantages and disadvantages of the final acceptable corridors, including the no-action improvement alternative. Discuss the environmental considerations as they

relate to each alternative (see Part III “Environmental Procedures”). Identify the adverse effects, appropriate measures to avoid, minimize or mitigate the adverse effects, and the costs to do so.

- h. Impacts on Existing Communities. In addition to the general factors mentioned above, discuss the impacts on existing communities where a corridor passes near or through an urban area. Include the following in the discussion:
- change in travel patterns;
  - the estimated number of people, dwelling units, and business establishments being displaced and the economic effects on the communities;
  - the potential for land use change and the likelihood of joint development; and
  - the relative consistency of the alternatives with the goals and objectives of any urban plan adopted by the community concerned.

These factors will often significantly impact the selection of the corridor location in densely populated areas. Ensure that the proposed corridor adequately reflects the urban transportation planning process.

- i. Public Involvement and Environmental Coordination. Include a summary and analysis of the views received as a result of public involvement activities and environmental coordination.
- j. Recommended Corridor. Identify the recommended corridor and provide a synopsis of the determinants used in making the final selection.
6. Estimate of Cost. Include a general estimate of right-of-way and construction costs for those corridors that have not been eliminated. The estimate should reflect the effects the proposed improvement will have on the existing transportation system in conjunction with other needed proposed improvements in the corridor.
7. Map Exhibits. In the discussion, reference all exhibits used in the study. As needed, develop map exhibits and other exhibits on 11 in x 17 in sheets. If a large number of exhibits are planned for the report, prepare a separate Appendix for the report. A separate Appendix provides a more useful format.

### **12-3.02 Feasibility Study Reports**

A feasibility study is very similar to the details described for a corridor study and, in many cases, the feasibility study is documented in a similar format as a Corridor Report. See Sections 11-1.01(c) and 12-1.02 for typical situations where a feasibility study is initiated.

### 12-3.03 Design Reports

A design study is developed according to the guidance in Section 11-5. In addition to the information listed in Section 12-2, consider the following items in the preparation of the Design Report:

1. Structure of Report. Lay out the Design Report in the format as shown in Section 12-2. In addition, consider the following:
  - a. Table of Contents. Provide a table of contents for the report that should list each separate report section, the figures and tables, appendices, and other reports included with the Design Report.
  - b. Page Numbers. Consecutively number the pages in the report including all exhibits and figures (i.e., do not renumber each major section).
  - c. Exhibits. Show all exhibits as figures with figure numbering for easy referencing. Place figures, small maps, and tables at the back of the report and reference them in the text. Place large figures (11 in x 17 in format) in either Appendix A or B. Removing the figures and tables from the text allows for easier reading and review of the report, quicker access to a desired page number, and more effective positioning and access of materials that are used to support the text.
  - d. Technical Reports. Provide a summary or reference the information provided in the technical reports.
  - e. Cross References. Provide cross-references to information provided elsewhere in the report (e.g., other sections, figures, appendices).
  - f. Checklist. Section 12-3.09 provides a checklist that may be used to ensure all applicable project information, certifications, coordination, and other requirements are covered in the Design Report.
2. Design Report Discussions. Include the following discussions in the Design Report:
  - a. Summary of Need and Location. Provide a summary of the need for the improvement and reasons supporting the general location of the highway as described in the Corridor Report.
  - b. Prior Studies. Include an analysis and listing of prior studies relevant to the improvement.
  - c. Plausible Alternatives. Discuss the plausible alternatives considered but not studied in depth, and provide a detailed explanation of why these alternatives were eliminated. Also, address the “no-action” alternative.
  - d. Major Design Features. Provide a detailed explanation of how major control points (e.g., interchange locations, river crossings, topography) were selected for the

- location of alignments on mapping; how the alignment best satisfies the geometric needs of an intersection or interchange; selected median types; and how the profile relates to the intersections and interchanges so that driver decision points are not hidden or cause visual obstructions. Also, provide a detailed explanation of aesthetic considerations for combining alignment and profiles; see Chapter 33.
- e. Compatibility with Highway System. Discuss the compatibility of the alternatives studied with existing street and highway plans including any necessary detours. Also, discuss the compatibility of alternatives with comprehensive urbanized plans or, where these plans do not exist, the extent of coordination with local officials concerning their highway needs.
- f. Environmental Considerations. Present the social, economic, and environmental advantages and disadvantages of the final alternatives studied, including the “no-action” alternative. Part III “Environmental Procedures” discusses environmental considerations.
- g. Final Alternatives. Discuss the advantages and disadvantages of the final alternatives studied with respect to:
- purpose and need;
  - traffic service, safety and operations;
  - construction and maintenance considerations and costs; and
  - other pertinent aspects (e.g., those revealed by engineering analyses); see Section 11-2.
- h. Public Involvement and Environmental Coordination. Provide a summary and an analysis of comments and concerns received as a result of public involvement activities and environmental coordination.
- i. Temporary Traffic Control. If applicable, discuss the management of existing traffic during construction; see Chapter 13.
- j. Commitments. Provide a list of commitments made during the public involvement process and interagency coordination. This list should eventually be discussed with the Phase II design squad and then transmitted to construction personnel.
- k. Recommended Alternative. Identify the recommended design alternative and present a synopsis of the determinants for its selection. Demonstrate that the recommended alternative best meets the purpose and need of the project with consideration of its social and environmental impacts.
3. Estimate of Costs. Prepare a cost estimate for all final alternatives developed by usable segments. A usable segment is suitable for traffic operations and construction phasing. The estimate format should follow that shown in Section 12-4 and Chapter 65.

4. Typical Sections. Provide typical sections for all proposed and affected roadways. Include pavement cross sections from preliminary pavement designs.
5. Base Maps. Use county maps or USGS Quadrangle Maps as a base map to show all alternatives considered initially, the final alternatives advanced for detailed study, and the termini of the design study.
6. Aerial Photography. Use uncontrolled photography in rural areas and controlled aerial photography in urban areas. Indicate the access control limits and sensitive environmental features for the alternatives advanced for detailed study. Prepare these exhibits on 11 in x 17 in sheets and place them in a separate Appendix A. This Appendix is used in conjunction with an EIS or EA and for the overall design study. Section 11-2.03 and Chapter 35 discuss access control features. Include in the Design Report a discussion on the specific access control features of the project. The Report should analyze and justify road closures and access features on expressways and freeways; see Sections 11-7.02 and Chapter 44.
7. Mapping Exhibits. Reduce original mylar sheets of mapping at 1 in = 50 ft (1:500 metric) or 1 in = 200 ft (1:2500 metric) scales by 50% to 1 in = 100 ft (1:1000 metric) and 1 in = 400 ft (1:5000 metric), respectively. Prepare mapping exhibits as plan and profile sheets for reduction on 11 in x 17 in sheets. Show the following on the mapping sheets:
  - State plane coordinates for all control points,
  - right-of-way limits,
  - preliminary design data,
  - structure locations,
  - horizontal alignment,
  - proposed frontage roads and service drives, and
  - current ADTs for all intersected or affected roadways.

Use a vertical scale of 1 in = 20 ft (1:250 metric) with 1 in = 200 ft (1:2500 metric) mapping and a vertical scale of 1 in = 5 ft (1:50 metric) with 1 in = 50 ft (1:500 metric) mapping. Combine the complete design of the highway as shown on the mapping sheets with the profile to make the final plan and profile sheets. Place these final reduced sheets into a separate Appendix B.
8. Intersection/Interchange Design Studies. Include approved IDSs for all interchanges and major intersections for each studied alignment carried to a public hearing. Prepare Intersection Design Studies in accordance with Chapter 14 and Interchange Type and Design Studies in accordance with Chapter 15. Include reduced-size copies of approved IDSs in Appendix B.
9. Public Involvement Document. On large complex projects, a considerable volume of letters is received from the public and different agencies concerning the need for the project and the possible impacts. For guidance on responses, refer to Section 19-5.04, Section 24-2, and Section 25-2. To organize this information and to make it more useful for future reference in case of litigation or questions concerning environmental issues, the

letters and their responses are included together in a separate volume. When a large number of similar comments are received, it may be advantageous to prepare a newsletter and mail to public meeting participants.

#### **12-3.04 Combined Design Reports**

The Combined Design Report is prepared where the corridor or location is predetermined due to the design of the proposed project. See Section 12-1.02 for a listing of typical projects in this category. At a minimum, the Combined Design Report should include the items listed in Section 12-2 and the following:

1. Structure of Report. Lay out the Combined Design Report in the format as shown in Section 12-2. In addition, consider the following:
  - a. Table of Contents. Provide a table of contents for the report that should list each separate report section, the figures and tables, appendices, and other reports included with the Combined Design Report.
  - b. Page Numbers. Consecutively number the pages in the report including all exhibits and figures (i.e., do not renumber each major section).
  - c. Exhibits. Show all exhibits as figures with figure numbering for easy referencing. Place figures, small maps, and tables at the back of the report and reference them in the text. Place large figures (11 in x 17 in format) in either Appendix A or B. Removing the figures and tables from the text allows for easier reading and review of the report, quicker access to a desired page number, and more effective positioning and access of materials that are used to support the text.
  - d. Technical Reports. Provide a summary or reference the information provided in the technical reports.
  - e. Cross References. Provide cross references to information provided elsewhere in the report (e.g., other sections, figures, appendices).
  - f. Checklist. Section 12-3.09 provides a checklist that may be used to ensure all applicable project information, certifications, coordination, and other requirements are covered in the Combined Design Report.
2. Functional Classification. Identify the functional classification of the highway proposed for improvement and for all affected roadways.
3. Typical Sections. Provide typical sections for the proposed improvement and all side roads. Include pavement cross sections from the preliminary pavement design.
4. Traffic Volumes. Include the current and design year traffic volumes for the proposed facility and for all crossroads; see Section 11-2.02.

5. Area Map. Provide an area map that indicates the general location of the improvement.
6. Existing Conditions and Alternative Features. Present the existing conditions and features along the proposed improvement. This information may be shown on a county map, city map, or photographic aerial mosaic, as needed, to adequately illustrate differences and termini. Prepare these exhibits on 11 in x 17 in sheets.
7. Major Design Features. Indicate the criteria used (e.g., new construction, reconstruction) and present, on appropriate exhibits such as topographic mapping, the proposed design for the project. Include horizontal and vertical alignment revisions, intersections, entrances, any grade separations, drainage structures, and other major design features. The original mylar sheets of mapping with proposed design features are reduced 50% and prepared on 11 in x 17 in sheets for the report. If an extensive number of exhibits are necessary, place them in an Appendix to the report. Also, include the appropriate information from any engineering analyses; see Section 11-2.
8. Right-of-Way Requirements. Provide an indication of the right-of-way to be acquired in sufficient detail to inform an individual of the affect on his or her property. This is usually shown on topographic mapping for the project. Also, discuss the resolution of any encroachment or utility adjustment problems.
9. Intersection/Interchange Design Studies. Include approved Intersection Design Studies (Chapter 14) or Interchange Type and Design Studies (Chapter 15) for all major intersections. Use an 11 in x 17 in reduced size sheet format.
10. Estimate of Costs. Provide cost estimates by usable segments, if applicable, or for an isolated project in accordance with the format in Section 12-4 and Chapter 65.
11. Combined Design Report Discussion. Discuss the following items:
  - a. General Description. Describe the need for the improvement, the general type of facility, the nature of service which the highway is intended to provide, and the adjacent highway sections including any plans for improvements on adjacent sections.
  - b. Corridor Feasibility. Discuss the reasons that no other corridor or location is feasible.
  - c. Alternatives and Environmental Considerations. Discuss any plausible alternatives considered and the reasons why these alternatives were eliminated. Use the EA checklist to identify the social, economic, and environmental considerations. For large complex projects, an EA or EIS may be required; see Part III "Environmental Procedures."
  - d. Compatibility with Highway System. Discuss the compatibility of the alternatives studied with existing street and highway plans including related comprehensive urban plans and pedestrian facilities. Where these plans do not exist, discuss the extent of coordination with local officials on highway needs.

- e. Final Alternatives. Discuss the advantages and disadvantages of the alignment or cross section alternatives studied with respect to the following:
- purpose and need;
  - traffic service, safety, and operations;
  - maintenance and protection of traffic during construction;
  - the need for bridge improvements;
  - the need for traffic signals and progression;
  - access control or access management considerations;
  - construction costs and right-of-way impacts; and
  - other pertinent aspects (e.g., those revealed by an engineering analysis); see Section 11-2.
- f. Recommended Improvement. Provide a summary of facts leading to the recommended improvement, including the consideration of the “no-action” alternative and an analysis of all comments received as a result of public involvement (see Chapter 19) and environmental coordination (see Part III “Environmental Procedures”).
- g. Commitments. Provide a list of commitments made during the public involvement process and interagency coordination. This list should eventually be discussed with the Phase II design squad and then transmitted to construction personnel.
12. Public Involvement Document. On large complex projects, a considerable volume of letters is received from the public and different agencies concerning the need for the project and the possible impacts. For guidance on responses, refer to Section 19-5.04, Section 24-2, and Section 25-2. To organize this information and to make it more useful for future reference in case of litigation or questions concerning environmental issues, the letters and their responses are included together in a separate volume. When a large number of similar comments are received, it may be advantageous to prepare a newsletter and mail to public meeting participants.

### **12-3.05 State Improvement Reports**

A State Improvement Report is a combined engineering/environmental document prepared for a State-only or State and locally funded project. This report is used when the scope of the project is major in nature and a programming decision is made that no Federal funds will be used for planning, right-of-way, or construction of the project. See Section 12-1.02 for a description of typical projects. Environmental information, agency coordination, and public involvement coordination are included in the report. Consider the following when preparing State Improvement Reports:

1. Format. The format of a State Improvement Report generally will be similar to that of a Combined Design Report; see Section 12-3.04.

2. Structure of Report. Lay out the State Improvement Report in the format as shown in Section 12-2. In addition, consider the following:
  - a. Table of Contents. Provide a table of contents for the report that should list each separate report section, the figures and tables, appendices, and other reports included with the State Improvement Report.
  - b. Page Numbers. Consecutively number the pages in the report including all exhibits and figures (i.e., do not renumber each major section).
  - c. Exhibits. Show all exhibits as figures with figure numbering for easy referencing. Place figures, small maps, and tables at the back of the report and reference them in the text. Place large figures (11 in x 17 in format) in either Appendix A or B. Removing the figures and tables from the text allows for easier reading and review of the report, quicker access to a desired page number, and more effective positioning and access of materials that are used to support the text.
  - d. Technical Reports. Provide a summary or reference the information provided in the technical reports.
  - e. Cross References. Provide cross-references to information provided elsewhere in the report (e.g., other sections, figures, appendices).
  - f. Checklist. Section 12-3.09 provides a checklist that may be used to ensure all applicable project information, certifications, coordination, and other requirements are covered in the State Improvement Report.
3. Content. The content of a State Improvement Report will be based on project complexity:
  - a. Design Features. These projects are major reconstruction or new construction type of improvements that may or may not involve an existing highway alignment or street. List and discuss the design guidelines used for the proposed improvement.
  - b. Environmental Information. Use the Abbreviated Environmental Assessment (BDE 2401) to determine the potential project impacts. Most projects will be the Categorical Exclusion type or occasionally will require an Environmental Assessment type analysis. Include a summary and analysis of the environmental impacts.
  - c. Public Involvement. Include a summary and analysis of the comments and concerns received as a result of public involvement. One or two informational meetings should be held and an offer to hold a public hearing should be made.
  - d. Estimate of Costs. Provide cost estimates by usable segments, if applicable, or for an isolated project in accordance with the format in Section 12-4 and Chapter 65.

### 12-3.06 Project Reports

A Project Report documents a construction project which uses an existing alignment, roadway, and right-of-way or, possibly, some minor relocations. It could be prepared for a Federal or State-only funded project. These types of projects typically qualify as Categorical Exclusions and, therefore, the environmental documentation is included in the Project Report. Also, see Section 12-1.02. When preparing a Project Report, consider the following:

1. Format. The Project Report should have the following generalized format:
  - table of contents;
  - Phase I Report Approval (BDE 2601);
  - text of report; and
  - exhibits (e.g., plan and profile sheets, aerial photograph, maps) located in the back of the report on 11 in x 17 in sheets. Designate each different exhibit as a "Figure" and, if figures are depicting the same information but at different locations, label each exhibit as Sheet \_\_\_\_ (No.) of \_\_\_\_ (No.) .
2. Page Numbering. Provide consecutively numbered pages for the report. Also, provide page numbers for all figures in the exhibit sections.
3. Cross References. Make cross-references between related areas and to figures contained in the exhibit section of the report.
4. Content. Information placed in a Project Report should reflect appropriate engineering and environmental investigations and should indicate compatibility with current Department criteria. The project study should meet the requirements for public involvement (Chapter 19), environmental analyses (Part III "Environmental Procedures"), and engineering analyses (Section 11-2). Figure 12-3.A provides an outline of the information, as applicable, that should be included in a Project Report. Also, review the items listed on the Fact Sheets for an Abbreviated Project Report as shown in Section 12-3.07.
5. Checklist. Section 12-3.09 provides a checklist that may be used to ensure all applicable project information, certifications, coordination, and other requirements are covered in the Project Report.

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FOR PROJECT REPORT**

	<b>Page</b>
Title Sheet	
Table of Contents	
Phase I Report Approval Form (BDE 2601)	
<b>I. NEED FOR IMPROVEMENT</b>	
<b>A. Project Location and Termini</b>	
1. Functional classifications and local name(s)	
2. Regional location — Note the project/route location with respect to other major routes, municipalities, and geographical markers	
3. Limits, county, municipality, maintenance jurisdictions (who owns road)	
4. Separate classifications (e.g., SRA, truck routes, NHS)	
<b>B. Description of Existing Conditions</b>	
1. Land use (along route and in project vicinity)	
a. Residential, commercial, industrial	
b. Historical sites	
c. Schools, parks, forest preserves, etc.	
2. Existing Cross Section	
a. Number of lanes, parking, shoulders and/or curb and gutter, sidewalk, median (type), and right-of-way (see Item VII.B. Typical Cross Sections); typical sections should also include pavement composition	
b. Existing drainage (brief description of open/closed system and record of flooding)	
<b>C. Operational and Safety Analyses</b>	
1. Why project was initiated (need)	
a. Safety concerns - include brief crash summary (e.g., number of crashes, predominant crashes and causes, Five Percent Report)	
b. Pavement condition	
c. Operational concerns/capacity	
d. Existing geometry and profile	
e. Structural deficiencies	
f. Local interest	
2. Relationship to other projects (past, current, future)	
<b>D. Project Purpose/Identified Deficiencies (general statement)</b>	

*Note: Table of Contents may be modified as necessary depending on the proposed improvement.*

**TYPICAL TABLE OF CONTENTS FOR PROJECT REPORT**

**Figure 12-3.A**

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<hr/>	
II. DESCRIPTION OF PROPOSED IMPROVEMENT (only include items relevant to project)	
A. Introduction	
This section is not intended to be lengthy, but should include the following:	
1. General scope of work	
2. Relationship to the purpose and need for improvement	
B. Design Criteria Utilized	
Note design criteria (e.g., 3R, reconstruction) used in developing improvement. For example: Chapter 49 "3R Guidelines for Rural and Urban Highways"	
C. Geometric Improvements	
Include reasons for each of the following:	
1. Typical roadway template (proposed cross section)	
2. Intersections	
3. Vertical alignment — lower or raise the profile (safety and drainage)	
4. Horizontal alignment — correct sight distance problem/deficient curves, revise superelevation, correct broken back alignments, etc.	
5. Unique considerations	
D. Preliminary Pavement Design/Rehabilitation	
1. Need for Geotechnical Survey	
2. Documentation for pavement design or rehabilitation of pavement	
3. Statement if cold milling is proposed	
E. Pavement Drainage	
1. Describe existing system and any proposed improvements	
2. Reference Preliminary Drainage Study or Hydraulic Report, as applicable	
F. Design Exceptions	
Include all design exceptions/waivers as approved by BDE and/or FHWA. Typically, these are discussed and concurrence is received at district coordination meetings.	
G. Right-of-Way	
1. Acquisition required	
a. Total parcels	
b. Land use summary	
c. Total area	

**TYPICAL TABLE OF CONTENTS FOR PROJECT REPORT**

**Figure 12-3.A**  
(Continued)

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	<b>Page</b>
<ul style="list-style-type: none"> <li>2. Permanent easements required               <ul style="list-style-type: none"> <li>a. Total parcels</li> <li>b. Land use summary</li> <li>c. Total area</li> </ul> </li> <li>3. Temporary easements required               <ul style="list-style-type: none"> <li>a. Total parcels</li> <li>b. Land use summary</li> <li>c. Total area</li> </ul> </li> <li>4. Residential/business displacement (see Plan Sheets and Part III "Environmental Procedures" for discussion)</li> <li>5. If no ROW acquisition is required, then include a statement to this effect.</li> </ul>	
<p>H. Structures</p> <p>This section is to be more detailed than Section I, Need for Improvement, and will function as a "quick-look" reference area (see Bridge Condition Report (BCR) and information listed in Abbreviated Project Reports):</p> <ul style="list-style-type: none"> <li>1. Feature carried</li> <li>2. Feature crossed and adjacent land use</li> <li>3. Structure number</li> <li>4. Existing structural deficiencies</li> <li>5. Proposed scope of work and cross section (e.g., deck replacement, superstructure replacement, bridge removal/replacement, in-stream work, widening)</li> <li>6. Vertical clearances — deficient or the need for restrictions on resurfacing projects</li> <li>7. Indicate whether foundation borings requested and/or completed. If completed, include in Project Report (supplement)</li> <li>8. Include memo from Bureau of Bridges and Structures approving BCR</li> <li>9. Reference coordination meeting with BDE for cross section concurrence</li> </ul>	
<p>I. Traffic Signal Modernization/Installation</p> <ul style="list-style-type: none"> <li>1. Location(s)</li> <li>2. Description of work (e.g., modernizing, interconnect, pre-emption, railroad crossing, installation)</li> <li>3. Reference signal warrants(s) met</li> <li>4. Local participation (e.g., construction costs, maintenance responsibility, maintenance costs, energy costs).</li> </ul>	
<p>J. Lighting</p> <ul style="list-style-type: none"> <li>1. Existing conditions (Lighting Survey)</li> <li>2. Maintenance responsibility</li> </ul>	

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**Figure 12-3.A**  
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3. Proposed improvement	
4. Funding responsibility	
<b>K. On-Street Parking</b>	
1. Existing conditions (e.g., parallel/diagonal, peak-hour restrictions, metered), include limits, municipality, and parking use (e.g., residential, commercial)	
2. Proposed improvement — Describe whether parking lanes are removed, replaced, resurfaced, reconstructed, or relocated	
3. Local participation	
<b>L. Sidewalks/ADA Requirements</b>	
1. Existing conditions (e.g., width, continuous, location)	
2. Proposed improvement (e.g., new, repair, width, location, local coordination, accessible for disabled persons)	
3. Local participation	
4. If no sidewalks exist and/or no new sidewalks requested, include statements to this effect	
<b>M. Bikeways/Trails</b>	
1. Note if route is a recommended road bicycle route or if there is another recommended (alternative) route in the proximity of the improvement	
2. Existing trails in the proximity of the improvement	
3. Bicycle generators in the area	
4. Local coordination to determine any planned facilities	
5. How project addresses bicycle usage (include specific improvements such as wider lanes, separate path, etc.)	
6. If the improvement does not accommodate bicycle use, then complete the Bicycle Checklist as discussed in Chapter 17	
<b>N. Pedestrian Overpass/Subways/Other Facilities</b>	
1. Existing — Describe pedestrian generators, crashes, and other features that would necessitate a grade separated pedestrian facility	
2. Proposed — Discuss proposed work and how it will accommodate pedestrians and provide benefits (e.g., safe access to parks/schools/public facilities/ commuter stations/bus stops, aesthetics, safety)	
<b>O. Mass Transportation</b>	
1. Existing services (e.g., bus, train, shuttle (include route numbers))	
2. Describe existing facilities (e.g., pedestrian accessible, park and ride lots, kiss and ride locations, commuter stations, bus stops (near side/far side))	

**TYPICAL TABLE OF CONTENTS FOR PROJECT REPORT**

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3.	Will project improve access to mass transportation (e.g., bus turnouts, bus pads, shelters, signal work)
P.	Utility Conflicts
1.	Identify utilities that were contacted and those that responded to having facilities within the project limits
2.	Describe conflicts with these utilities due to the proposed improvement (e.g., changes in horizontal and vertical alignment, widening, replacement of bridge deck or superstructure, trenching, boring for conduits, storm sewer)
Q.	Encroachments
1.	Existing (e.g., illegal parking, ROW infringements)
2.	Proposed remediation of encroachments
3.	Reference letters sent to property owner about encroachments
R.	Mail Delivery
1.	Type of drop-off (e.g., locations, door-to-door, streetside)
2.	Hazardous mailbox supports (reference letters sent to property owners); see Chapter 58
3.	Improvement's impact on mail delivery (need to contact local postmaster)
4.	Mailbox turnouts (shoulder section versus curb and gutter); see Chapter 58
S.	Landscape/Roadside Development
1.	Note all areas disturbed by construction to be restored to turf cover
2.	Note all tree and other plants removed for construction and which will be replaced; see Chapter 59
3.	Summarize the results of the vegetation assessment survey
T.	Construction Site Stormwater Pollution Control If soil is exposed to displacement, include construction site stormwater pollution control documentation; see Chapter 41
U.	At-Grade Railroad Crossings
1.	Location and rail line (e.g., Union Pacific, Wisconsin Central, CTA "L").
2.	Existing conditions
a.	railroad crossing flashers, gates, and pedestrian gates
b.	proximity of train stations or stops
c.	number of tracks and alignment of crossing
d.	crash history at crossing

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	3. Proposed improvement — In addition to roadway work, include the results of the coordination with the Railroad Unit to determine proposed improvements (e.g., rail replacement, rehabilitation, changes in gate/flasher (preemption) timing).	
	4. Train interruptions/detour routes	
	5. Proximity of traffic signals and preemption. Include results of discussions with the district Bureau of Operations to identify signal sequence and preemption at the crossing. Describe existing (or the need for) near side traffic signals that stop traffic in advance of the crossing; see Section 36-8.	
	6. Coordination with Illinois Commerce Commission	
V.	Surveillance	
	1. Existing surveillance within or in the proximity of the proposed improvement (e.g., changeable message signs, detector loops, volume/speed loops, video detection/monitors)	
	2. Proposed surveillance for the improvement	
	3. Results of coordination with the district Bureau of Operations (Bureau of Traffic, District 1), where necessary	
W.	Pump Stations	
	The electrical requirements associated with pump stations are determined and designed by the Bureau of Electrical Operations (District 1) and Bureau of Operations in other districts. The roadway collection system, pump capacity, pump discharge, storm water storage, and outlet evaluation are detailed in the Hydraulics Report prepared by the Hydraulics Unit in the district. For this section of the Project Report, provide the following general information, while referencing the Hydraulics Report for the more detailed, technical information:	
	<ul style="list-style-type: none"> <li>• pump station number and location,</li> <li>• roadway limits that are drained by the pump station,</li> <li>• outfall location, and</li> <li>• proposed improvements as directed by Hydraulics Unit.</li> </ul>	
X.	Retaining Walls	
	a. Existing retaining walls within and/or affected by the improvement.	
	b. Proposed retaining walls that are required as a result of improvement (e.g., profile adjustments, regrading near bridge abutments, sidewalk separations). Walls over 10 ft (3 m) high are either designed by Bureau of Bridges and Structures or the design is reviewed by Bureau of Bridges and Structures.	

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c. Provide information on length and height (exposed) so that the design squad can determine need for consultant services.	
d. Indicate whether foundation borings requested/completed. If completed, include as supplement.	
Y. Public Educational Facility Entrances	
a. Existing entrances to route	
b. Existing conditions	
c. Proposed improvement, if any	
<b>III. ENVIRONMENTAL RESOURCE SUMMARIES</b>	
For documentation requirements in the Project Report, see Section 12-3.09.	
<b>IV. TRANSPORTATION MANAGEMENT PLAN AND RECOMMENDATIONS</b>	
See Chapters 13 and 55 to determine type and cost of traffic management for proposed improvement.	
<b>V. ESTIMATE OF COSTS</b>	
See Section 12-4 and Chapter 65 for details on cost estimates for Project Reports.	
<b>VI. COMMITMENTS</b>	
A. Environmental (e.g., permits, restricted areas, tree cutting, mitigation)	
B. Property owner/local/forest preserve/transit company	
C. Other agencies (e.g., IDNR, Agriculture, US Army Corps of Engineers)	
These commitments require review by the Project and Environmental Studies Section Chief and by the Environmental Unit Head in District 1 and by the Project Engineer and Environment Studies Supervisor in other districts. Discuss these commitments with Phase II design squad and with construction personnel.	
<b>VII. EXHIBITS</b>	
A. Location Maps	
B. Typical Cross Sections	
C. Traffic Diagrams of Overall Street Network	
D. Existing Conditions (Aerial Photography)	
E. Proposed Conditions (Plan and Profile Sheets in 11 in x 17 in format)	

**TYPICAL TABLE OF CONTENTS FOR PROJECT REPORT**

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F. Approved Intersection Design Studies (Reduce to 11 in x 17 in format)	
G. Overall Schematic of Horizontal Control and Curve Data	
H. Vertical Curve Data	
VIII. COORDINATION/DOCUMENTATION	
Provide copies of correspondence, coordination, minutes of meetings, and a summary of public involvement needed and completed.	
A. Environmental Correspondence/Permits	
B. District Coordination Meeting Minutes	
C. Coordination	
1. Municipalities/counties	
2. Parks and forest preserves	
3. Mass transit agencies	
4. Other agencies (utilities, railroads, etc.)	
D. Public Involvement	
1. Property owner letters or contacts	
2. Other correspondence	
3. Summary of Informational Meetings/Public Hearings	
IX. TECHNICAL REPORTS	
A. Air Quality	
B. Noise/Construction Noise	
C. Crash Analysis	
D. Vegetation Assessment/Survey	
E. Bridge Condition Report	
F. Geotechnical Survey	
G. Transportation Management Plan (TMP)	
H. Other	
X. PRELIMINARY DRAINAGE STUDY	
If needed, prepare as a separate technical report.	

**TYPICAL TABLE OF CONTENTS FOR PROJECT REPORT**

**Figure 12-3.A**  
(Continued)

### **12-3.07 Abbreviated Project Reports**

For some 3R type projects and replace-in-kind reconstruction projects, an Abbreviated Project Report format may be used to document the results of a Phase I engineering study. This format eliminates considerable writing and provides an easy-to-follow checklist, fill-in-the-blanks, and attachments type report.

Only use an Abbreviated Project Report when the environmental and engineering impacts of a project can be adequately described by completing the Fact Sheet and by use of attachments. However, if the project information as described in Part III "Environmental Procedures" requires the preparation of a narrative type report for adequate coverage, then use the Project Report format described in Section 12-3.06.

The recommended format of an Abbreviated Project Report can be found in the following figures as applicable:

- Figure 12-3.B, Fact Sheet (Roadway Improvement); and
- Figure 12-3.C, Fact Sheet (Total Structure or Superstructure Replacement).

As an exhibit, include a copy of the applicable district coordination meeting minutes. This documentation describes the proposed improvement and lists the decisions made at those meetings. A typical example of these meeting minutes is shown in Figure 12-3.D.

### **12-3.08 3P and SMART Projects**

#### **12-3.08(a) Report Format and Content**

To assist the districts in documenting 3P and SMART improvements, see forms BDE 2564 and BDE 2565, respectively. An important aspect of 3P and SMART improvements is the discussion and presentation of these projects at district coordination meetings. The use at coordination meetings provides the means to discuss design exceptions, how Five Percent Report locations will be addressed, and the need for additional right-of-way. Also, see Section 12-1.02 for further information on 3P and SMART Reports and Chapters 52 (SMART) and 53 (3P) for further design details on pavement resurfacing.

After the completed report is signed, transmit a copy of the checklist report plus any attachments to BDE for information and project documentation. In almost all cases, the Regional Engineer will approve these projects.

ABBREVIATED PROJECT REPORT  
ILLINOIS DEPARTMENT OF TRANSPORTATION

1. PPS (Project Planning System) No.: \_\_\_\_\_
2. Contract No.: \_\_\_\_\_
3. State Job No.: \_\_\_\_\_
4. Highway Functional Classification: \_\_\_\_\_
5. Truck Route Classification: \_\_\_\_\_
6. Type of Improvement: \_\_\_\_\_ W & RS or \_\_\_\_\_ RS  
If other type of improvements, attach description: \_\_\_\_\_
7. Proposed Project Funding (Must be compatible with selected design guidelines.): \_\_\_\_\_
8. Current ADT: \_\_\_\_\_ % Trucks in ADT: \_\_\_\_\_
9. Surrounding Land Use: \_\_\_\_\_
10. Existing Right-of-Way Width: \_\_\_\_\_ Proposed: \_\_\_\_\_
11. Existing No. of Lanes: \_\_\_\_\_ Proposed: \_\_\_\_\_
12. Existing Roadway Width: \_\_\_\_\_ Proposed: \_\_\_\_\_
13. Existing Traveled Way Width: \_\_\_\_\_ Proposed: \_\_\_\_\_
14. Pavement Surface Condition (CRS): \_\_\_\_\_ (Year): \_\_\_\_\_
15. Existing Shoulder or Curb Type: \_\_\_\_\_ Proposed: \_\_\_\_\_
16. Existing Clear Zone Width: \_\_\_\_\_ Proposed: \_\_\_\_\_
17. Describe existing conditions or proposed highway improvements adjacent to project limits: \_\_\_\_\_  
\_\_\_\_\_
18. Are there any bridges in this construction section? \_\_\_\_ Yes \_\_\_\_ No. Can they all remain in place? \_\_\_\_ Yes \_\_\_\_ No. Give description of what must be done to each bridge in this segment and when work will be accomplished (See Figure 12-3.C): \_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
19. What has the field check indicated for culvert extensions, side road culvert improvements, and other safety work: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FACT SHEET**  
**(Roadway Improvement)**

**Figure 12-3.B**

Use a straight-line diagram or schematic plan to indicate proposed work including culvert extensions, guardrail, etc.

20. Will ditch cleaning be necessary with this improvement?  Yes  No

21. What has a review of crash data shown? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

22. Existing Rural Posted Speed: \_\_\_\_\_ Urban Posted Speed: \_\_\_\_\_

23. Proposed Rural Design Speed: \_\_\_\_\_

Proposed Urban Design Speed: \_\_\_\_\_

24. Check design policy used:

3R criteria for arterial highways and bridges for other than expressways and freeways on the Federal-aid Highway System (See Chapter 49)

3R criteria for highways and bridges on unmarked routes of the State Highway System (See Chapter 49)

Other (list): \_\_\_\_\_

25. List and indicate reasons for any design exceptions: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Does existing highway geometry meet IDOT criteria?

Horizontal:  Yes  No

Vertical:  Yes  No

If "No" is checked, discuss what will be done: \_\_\_\_\_  
 \_\_\_\_\_

**FACT SHEET  
 (Roadway Improvement)**

**Figure 12-3.B  
 (Continued)**

Is resurfacing thickness in accordance with Department pavement rehabilitation criteria (see Chapter 53)?

Yes  No; Reason(s) \_\_\_\_\_

26. How will traffic be maintained during construction? \_\_\_\_\_

27. RR Data: Trains/Day \_\_\_\_\_ # Tracks \_\_\_\_\_ Speed of Trains \_\_\_\_\_

28. RR Crossing Protection: Existing: \_\_\_\_\_ Changes Proposed:  Yes  No

29. Type of proposed improvements at RR crossing: \_\_\_\_\_

30. Sidewalks: Existing: \_\_\_\_\_ Proposed: \_\_\_\_\_

31. Parking: Existing: \_\_\_\_\_ Proposed: \_\_\_\_\_

32. Will signals be installed or modernized? \_\_\_\_\_

33. Lighting: \_\_\_\_\_

34. Utilities/Encroachments: \_\_\_\_\_

35. Drainage (flood plain, detention, flooding over the roads, etc.): \_\_\_\_\_

36. Any Section 4(f) sites on Federal-aid projects?  Yes  No

37. Is an environmental survey request required by Department policy?  Yes  No

38. If applicable, Metropolitan Planning Organization approval date: \_\_\_\_\_

39. Permit Status (Sections 404, 402, and 10 Permits, 401 Certification, etc.): \_\_\_\_\_

40. Have any special erosion control or tree retention commitments been made?

Yes  No

If yes, has the district Landscape Architect/Specialist reviewed the commitments?

Yes  No

41. If soil is exposed to displacement, include construction site stormwater pollution control documentation (see Chapter 41).

42. Are there any existing public educational facility entrances onto the route:

Yes  No

**FACT SHEET  
(Roadway Improvement)**

**Figure 12-3.B  
(Continued)**

43. Roadway Exhibits:	<u>Page No.</u>
• Completed Estimate of Costs (see Figure 12-4.B): .....	_____
• Concurrence Letter for Funding Participation: .....	_____
• IDOT TIP Sheet: .....	_____
• Location Map and Aerial Photography (use 11 in x 17 in format): .	_____
• Profile Gradelines of Existing Alignment, Any Corrections, and Topographic Mapping for Alignment and Profile Changes: .....	_____
• List of Existing Horizontal Curvature From Road Plans and Superelevation Rates From Field Check (if applicable): .....	_____
• Typical Roadway Cross Sections (existing and proposed): .....	_____
• BDE Approval Memorandum on Resurfacing Thickness Deviation (if applicable): .....	_____
• Crash Analysis and Schematic Drawing of Crashes (Collision Diagram) for Previous Three Years: .....	_____
• Wet-Weather Skid Crash Analysis: .....	_____
• Resolution of Any Encroachments on ROW: .....	_____
• Archaeological/Biological Sign-off (where applicable) or Evidence of the Results of Surveys and Related Coordination: ....	_____
• Noise Statement for Projects with Alignment Changes or Noise Abatement: .....	_____
• Coordination and US Army Corps of Engineer, Section 404 Permit Status If Bridges are Involved: .....	_____
• Route Improvement Plans for Adjacent Districts: .....	_____
• Agency Coordination Letters: .....	_____
• Utility Coordination: .....	_____
• District Coordination Meeting Minutes (See Figure 12-3.D): .....	_____
• Public Involvement Comments and Responses (if applicable): ....	_____
• Discussion of Mailbox Supports: .....	_____
• List Commitments with Discussion of Each: .....	_____
• Airport Clearance Coordination (if applicable): .....	_____
• Drainage/Hydraulic Reports (summary): .....	_____
• Approved Intersection Design Studies: .....	_____
• Transportation Management Plan (TMP) and Approval Memorandum: .....	_____

**FACT SHEET  
(Roadway Improvement)**

**Figure 12-3.B  
(Continued)**

ABBREVIATED PROJECT REPORT  
ILLINOIS DEPARTMENT OF TRANSPORTATION

1. PPS (Project Planning System) No.: \_\_\_\_\_
2. Contract No.: \_\_\_\_\_
3. State Job No.: \_\_\_\_\_
4. Highway Functional Classification: \_\_\_\_\_
5. Truck Route Classification: \_\_\_\_\_
6. Is project eligible for HBP funds?      \_\_\_\_\_ Yes      \_\_\_\_\_ No
7. Current ADT: \_\_\_\_\_      % Trucks in ADT: \_\_\_\_\_
8. Name of Stream or Crossing: \_\_\_\_\_
9. Surrounding Land Use: \_\_\_\_\_
10. Existing Approach Roadway Width: \_\_\_\_\_      Proposed: \_\_\_\_\_
11. Existing Traveled Way Width: \_\_\_\_\_      Proposed: \_\_\_\_\_
12. Existing Shoulder Type: \_\_\_\_\_      Proposed: \_\_\_\_\_
13. Existing Shoulder Width: \_\_\_\_\_      Proposed: \_\_\_\_\_
14. Existing Clear Roadway Bridge Width: \_\_\_\_\_ f-f      Proposed: \_\_\_\_\_ f-f
15. Are sidewalks warranted?      \_\_\_\_\_ Yes      \_\_\_\_\_ No
16. Existing Posted Speed: \_\_\_\_\_
17. Proposed Rural Design Speed: \_\_\_\_\_      Proposed Urban Design Speed: \_\_\_\_\_
18. Check Design Policy Used:
  - \_\_\_\_\_ 3R criteria for arterial highways and bridges for other than freeways and expressways on the Federal-aid System (see Chapter 49)
  - \_\_\_\_\_ 3R criteria for highways and bridges on unmarked routes of the State Highway System (see Chapter 49)
  - \_\_\_\_\_ Other (List): \_\_\_\_\_
19. Does existing highway geometry meet IDOT criteria?
  - Horizontal: \_\_\_\_\_ Yes      \_\_\_\_\_ No (discuss): \_\_\_\_\_
  - Vertical: \_\_\_\_\_ Yes      \_\_\_\_\_ No (discuss): \_\_\_\_\_

**FACT SHEET**  
**(Total Structure or Superstructure Replacement)**

**Figure 12-3.C**

20. List and indicate reasons for any design exceptions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
21. Are proposed clear roadway bridge width and alignment compatible with existing and proposed bridge widths within adjacent roadway sections assuming logical segments?  
\_\_\_\_\_ Yes \_\_\_\_\_ No, Discuss: \_\_\_\_\_
22. Any crash problems on or adjacent to bridge: \_\_\_\_\_ Yes \_\_\_\_\_ No, Discuss: \_\_\_\_\_  
\_\_\_\_\_
23. Is channel work required? \_\_\_\_\_ Yes \_\_\_\_\_ No
24. Hydraulic Information or Attach Waterway Table (where applicable).
- a. Drainage Area: \_\_\_\_\_ acres (hectares)
  - b. Existing Opening: \_\_\_\_\_ sq ft (m<sup>2</sup>)
  - c. Required Opening: \_\_\_\_\_ sq ft (m<sup>2</sup>)
  - d. Proposed Opening: \_\_\_\_\_ sq ft (m<sup>2</sup>)
  - e. Q ( ): \_\_\_\_\_ cu ft/s (m<sup>3</sup>/s)
- Discuss Results: \_\_\_\_\_
25. Has Bureau of Bridges and Structures concurred in Proposed Bridge Drawings and Bridge Condition Report? \_\_\_\_\_ Yes \_\_\_\_\_ No
26. Has district Bridge Engineer made a recent field inspection of abutments and piers?  
\_\_\_\_\_ Yes \_\_\_\_\_ No
27. Comments on Field Check: \_\_\_\_\_
28. Is an environmental survey request required by Department policy? \_\_\_\_\_ Yes \_\_\_\_\_ No
- a. Any Wetlands Involved in Reconstruction: \_\_\_\_\_ Not Applicable: \_\_\_\_\_
  - b. 4(f)/106 Involved on Federal-aid Projects: \_\_\_\_\_ Not Applicable: \_\_\_\_\_

**FACT SHEET**  
**(Total Structure or Superstructure Replacement)**

**Figure 12-3.C**  
(Continued)

- c. Illinois Department of Natural Resources, Office of Water Resources:  
 Status of Flood Plain Permit: \_\_\_\_\_ Not Applicable: \_\_\_\_\_
29. Are Sections 404, 402, and 10 Permits and Section 401 Certification required for channel work, runaround detours, etc.? \_\_\_\_\_ Yes \_\_\_\_\_ No Status of Permit: \_\_\_\_\_
30. Status of Other Permits (see Chapter 28): \_\_\_\_\_
31. Is this a historic bridge? \_\_\_\_\_ Yes \_\_\_\_\_ No If yes, discuss: \_\_\_\_\_
32. If applicable, Metropolitan Planning Organization approval date: \_\_\_\_\_
33. What method will be used to detour or maintain traffic during construction (Transportation Management Plan)? \_\_\_\_\_
34. Have any special erosion control or tree retention commitments been made?  
 \_\_\_\_\_ Yes \_\_\_\_\_ No  
 If yes, has the district landscape architect/specialist reviewed the commitments?  
 \_\_\_\_\_ Yes \_\_\_\_\_ No
- If soil is exposed to displacement, include construction site stormwater pollution control documentation (see Chapter 41).
35. Structure or Superstructure Replacement Exhibits: Page No.
- Completed Estimate of Costs (See Figure 12-4.B): ..... \_\_\_\_\_
  - Concurrence Letter for Funding Participation: ..... \_\_\_\_\_
  - IDOT TIP Sheet: ..... \_\_\_\_\_
  - Location Map and Aerial Photography (use 11 in x 17 in format): . \_\_\_\_\_
  - Profile Gradeline of Existing Alignment, Any Corrections and Topographic Mapping for Alignment and Profile Changes: ..... \_\_\_\_\_
  - List Existing Horizontal Curvature From Road Plans and Super-elevation Rates From Field Check (if applicable): ..... \_\_\_\_\_
  - Proposed Bridge Drawings and Memorandum Approving Each Bridge Condition Report(s): ..... \_\_\_\_\_
  - Color Photographs of Existing Bridge(s): ..... \_\_\_\_\_
  - Other Items for Approach Roadway (if applicable): ..... \_\_\_\_\_

**FACT SHEET**  
**(Total Structure or Superstructure Replacement)**

**Figure 12-3.C**  
 (Continued)

- Crash Analysis Schematic Drawing of Crashes  
(Collision Diagram) 0.5 miles (800 m) on Each Side of Bridge: .... \_\_\_\_\_
- Wet-Weather Skid Crash Analysis: ..... \_\_\_\_\_
- Resolution of Any Encroachments On ROW: ..... \_\_\_\_\_
- Archaeological/Biological Sign Off (where applicable), or  
Evidence of the Results of Surveys and Related Coordination: .... \_\_\_\_\_
- Noise Statement for Projects with Alignment Changes or Noise  
Abatement: ..... \_\_\_\_\_
- Coordination With US Army Corps of Engineer, Section 404  
Permit Status: ..... \_\_\_\_\_
- Agency Coordination Letters: ..... \_\_\_\_\_
- Utility Coordination: ..... \_\_\_\_\_
- District Coordination Meeting Minutes (see Figure 12-3.D: ..... \_\_\_\_\_
- Public Involvement Comments and Responses (if applicable): ..... \_\_\_\_\_
- List Commitments With Discussion of Each: ..... \_\_\_\_\_
- Airport Clearance Coordination (if applicable): ..... \_\_\_\_\_
- Transportation Management Plan (TMP) and Approval  
Memorandum: ..... \_\_\_\_\_
- Drainage/Hydraulic Reports (summary): ..... \_\_\_\_\_

36. Are there any existing public education facilities entrances onto the route?

\_\_\_\_\_ Yes    \_\_\_\_\_ No

If yes, will they be improved?        \_\_\_\_\_ Yes    \_\_\_\_\_ No

**FACT SHEET**  
**(Total Structure or Superstructure Replacement)**

**Figure 12-3.C**  
(Continued)

## ILLINOIS DEPARTMENT OF TRANSPORTATION

COORDINATION MEETING MINUTES DISTRICT 3 CONFERENCE ROOM		TOPIC NO. 9
DATE OF MEETING: January 29, 1998	FUNDING SOURCE: STP	
ROUTE: FAP 41		
MARKED ROUTE: Illinois 17	DESIGN GUIDELINES USED: 3P	
LOCAL NAME: N/A	FUNCTIONAL CLASSIFICATION: East of CH 6 - Urban Other Principal Arterial West of CH 6 - Rural Minor Arterial	
SECTION: (11, 12) RS-3	DESIGN SPEED: 60 mph (100 km/h)	
COUNTY: Kankakee	POSTED SPEED: 55 mph	
ADT:	Herscher Rd. to Warner Bridge Road - 3,850/1997/10.4 Warner Bridge Road to Kankakee City Limits - 9,400/1997/5.4	

1. **LIMITS OF PROJECT:** The project begins approximately 0.75 miles (1.2 km) east of Herscher Road and extends east approximately 9.13 miles (14.7 km) to the west Kankakee city limits.
2. **PREVIOUS DATES OF DISCUSSION:** None
3. **PROJECT DESCRIPTION:** The length of roadway to be improved is approximately 9.13 miles (14.7 km). It was originally constructed in 1924 to a width of 18 ft (5.5 m) with a pavement design of 9 in-6 in (229 mm-152 mm-229 mm) portland cement concrete and earth shoulders.  
  
In 1961, the roadway was widened to 24 ft (7.32 m) with 9 in (229 mm) portland cement concrete and overlaid with 3.25 in (82 mm) of bituminous asphalt. In 1975, bituminous shoulders 9 in (229 mm) at a width of 1.5 ft (457 mm) were added to each side and the entire roadway given a bituminous overlay of 3 in (76 mm) and aggregate shoulders. In 1986, the shoulders were widened an additional 1.5 ft (457 mm) with 6 in (152 mm) of bituminous concrete to allow for a bituminous shoulder of 3 ft (914 mm). Turn lanes of 12 ft (3.66 m) were also constructed at Lehigh and Limestone Roads with 9 in (229 mm) of bituminous base course. The existing roadway was cold milled 0.625 in (16 mm) and the entire roadway was given a bituminous overlay of 2 in (51 mm). Aggregate shoulders 5 ft (1.52 m) were also added.  
  
The proposed improvement includes a bituminous concrete overlay of 0.75 in (19 mm) leveling binder and a bituminous concrete overlay of 1.5 in (38 mm) surface course. A 5 ft (1.5 m) aggregate wedge will also be placed. Mr. John Doe of the Bureau of Design and Environment concurred with the scope of work and with the project being processed as a Group I Categorical Exclusion.
4. **TRAFFIC CONTROL:** This project will be constructed using applicable traffic control standards with one lane open to traffic at all times during construction.
5. **REVIEW OF CRASH DATA:** A total of 102 crashes have occurred on this segment of Illinois Route 17 from January 1993 to December 1995. The highest crash pattern was in clear and dry conditions (69 percent). The most common type was animal related (28 percent). No Five Percent Report locations were noted in the project limits.
6. **EXPLANATION OF DESIGN EXCEPTIONS:** No exceptions required.
7. **ENVIRONMENTAL ACTIONS DESIRED:**
  - **NATIONWIDE 404 PERMITS:** N/A
  - **ENVIRONMENTAL SURVEY REQUEST:** N/A
  - **CATEGORICAL EXCLUSION:** Group I Concurred 1-29-98
8. **ADDITIONAL RIGHT-OF-WAY NEEDED:** N/A
9. **ATTACHMENTS:** Location Map(s) attached.

**EXAMPLE OF DISTRICT MINUTES  
(Coordination Meeting Minutes)**

Figure 12-3.D

### **12-3.08(b) Five Percent Report Locations**

Every effort should be made to incorporate Five Percent Report (FPR) locations into the design of 3P and SMART projects. The following discusses when to incorporate FPR locations into a 3P or SMART project.

There are two levels of FPR investigations and analysis that determine a FPR's impact on a resurfacing improvement. Figure 12-3.E should be used to assist in making these determinations. Each investigation and analysis requires engineering judgment and the documentation of conclusions. Also, examine and analyze the following:

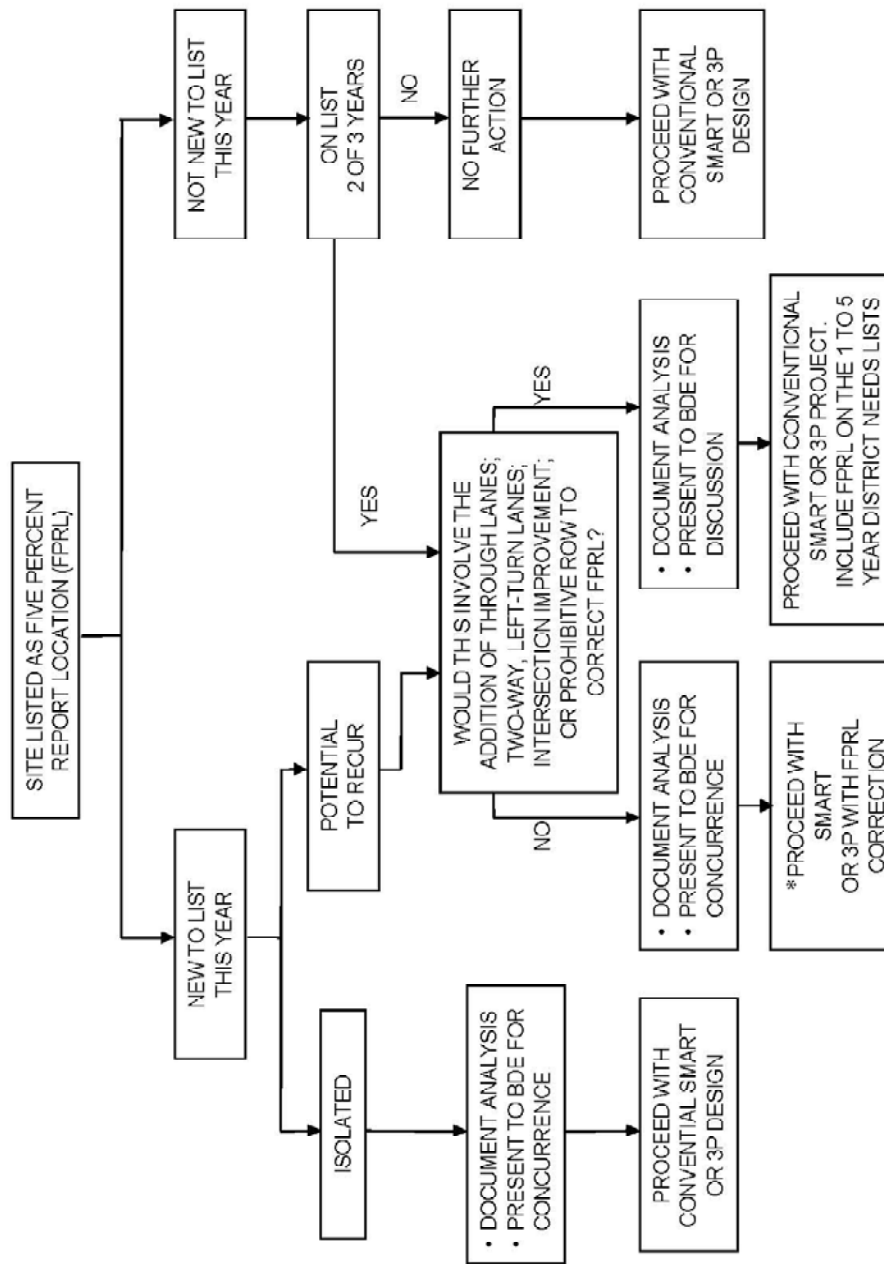
- frequency of crashes;
- severity of crashes;
- crash rate;
- delta change;
- predominate type of crashes;
- type of area;
- pertinent history of past improvements;
- an event near or at the location which might have contributed to its being listed as a FPR location;
- existing geometrics (e.g., alignment, roadway width, ROW, turn lanes); and
- results of capacity analysis.

If it is determined not to incorporate a FPR location into the resurfacing improvement, the location must be either an isolated occurrence, or the location must be considered not to be correctable as part of the resurfacing project.

To incorporate a FPR location into a 3P or SMART project, the location must be considered to be recurring when:

- it has been on the FPR list for two out of the last three years; or
- where in the first year on the FPR list, an analysis determines that there is a potential for recurrence (not an isolated occurrence).

When there is a question whether or not a location is an isolated occurrence, the district should postpone any improvement to see if it reappears on the next year's FPR listing.



\*FPRL improvement may be constructed prior to or in conjunction with the 3P or SMART Project. If in conjunction with, use separate pay items for the FPRL improvement for later evaluation of costs.

**GUIDANCE TO INCLUDE FPR LOCATIONS INTO 3P OR SMART PROJECTS**

**Figure 12-3.E**

**12-3.09 Checklist for Phase I Reports**

Figure 12-3.F presents a checklist that may assist in the preparation of Phase I reports. It ensures that all applicable project information, certifications, coordination, and other requirements are covered in the report. The checklist is also used for screening projects proposed as CE I or CE II actions to determine if they involve environmental issues indicating potential for “unusual circumstances” (see Chapter 23).

For proposed CE I actions, complete the items under “1. All CE Projects – Indicators of Potential for Unusual Circumstances” and the other sections in the checklist, beginning with “Environmental Issues.” For proposed CE II projects, complete the entire checklist, including the items under “2. CE II Projects – Additional Indicators of Potential for Unusual Circumstances.” For non-CE projects, use the parts of the checklist after the first two, which are specific to CE actions. In completing the parts of the checklist that address environmental effects, consider the potential for indirect and/or cumulative impacts as well as direct impacts. For any topic that does not apply, check the box for “N/A”. For topics that are applicable, check the box for “A” and reference the location of the associated documentation in the Phase I report or environmental document.

Include the completed checklist in Phase I reports for proposed CE II projects and “1. All CE Projects – Indicators of Potential for Unusual Circumstances” for CE I projects with wetland impacts. If a CE I project did not require a report and had wetland impacts, include “1. All CE Projects – Indicators of Potential for Unusual Circumstances” in the report file. The checklist will provide the necessary documentation on environmental issues to support FHWA approval of the CE classification.

CATEGORICAL EXCLUSION (CE) PROJECT ISSUES

1. All CE Projects – Indicators of Potential for Unusual Circumstances (See Section 23-1.05).

Any project proposed as a CE must be evaluated to determine if it involves potential for unusual circumstances that require appropriate environmental studies to confirm whether the action qualifies as a CE. FHWA and IDOT have agreed on several indicators of potential for unusual circumstances. Evaluate projects proposed as CEs to determine if they involve the following indicators, or other factors that could indicate potential for unusual circumstances requiring further evaluation:

Note - for CEs that involve wetland impacts:

The FHWA issued a programmatic Wetland Finding for CEs on November 1, 2006 in compliance with Executive Order 11990, Protection of Wetlands. The Programmatic Wetland Finding is available for review on IDOT's website at: <http://www.dot.il.gov/desenv/environmental/wetlandfindings.html>.

- Requires an individual Section 404 permit (See Section 28-2 and Checklist Item 33) N/A  A  See \_\_\_\_\_
- Requires individual water quality certification from the Illinois Environmental Protection Agency (IEPA) (See Section 28-2 and Checklist Item 34) N/A  A  See \_\_\_\_\_
- Involves stream channelization or relocation (See Checklist Item 17) N/A  A  See \_\_\_\_\_
- Involves a stream listed on the Nationwide Rivers Inventory (See Section 26-20 and Checklist Item 19) N/A  A  See \_\_\_\_\_
- Involves highway relocation(s) and/or acquisition of more than 10 acres (4 ha) total for a non-linear improvement or more than 3 acres/mile (0.75 ha/km) for a linear improvement (See Checklist Item 24) N/A  A  See \_\_\_\_\_
- Requires substantial changes in access, access control, or travel patterns N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**  
**Figure 12-3.F**

- Requires a temporary road, detour or ramp closure, unless the use of such facilities satisfies the conditions discussed in Section 23 1.05(a) N/A  A  See \_\_\_\_\_
- Exceeds the Illinois Department of Natural Resources (IDNR) threshold for an increase in 100-year water surface elevation, or has potential for a "significant encroachment" in floodplains, as defined in Executive Order 11988 (See Section 26-7 and Checklist Item 14) N/A  A  See \_\_\_\_\_
- Requires the preparation of a Biological Assessment for a Federally-listed threatened or endangered species or their critical habitat (See Section 26-9 and Checklist Item 5) N/A  A  See \_\_\_\_\_
- Involves a designated Nature Preserve, Natural Area, or Land and Water Reserve (See Checklist Items 6 and 7) N/A  A  See \_\_\_\_\_
- May result in a "no adverse effect" or an "adverse affect" finding for a historic or archaeological resource on or eligible for inclusion on the National Register of Historic Places (NRHP) (See Section 26-5 and Checklist Item 13) N/A  A  See \_\_\_\_\_
- May involve a "use" of land from a Section 4(f) resource (See Section 26-2 and Checklist Item 10) N/A  A  See \_\_\_\_\_
- Has potential for controversy on environmental grounds as determined by FHWA, or inconsistency with Federal, State, or local requirements relating to the environment or planning N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

2. CE II Projects – Additional Indicators of Potential for Unusual Circumstances.

In addition to the preceding factors, evaluate the following indicators of potential for unusual circumstance for any action proposed as a CE II:

- Involves business and/or residential displacement(s)/relocation(s) N/A  A  See \_\_\_\_\_
- May cause economic impacts N/A  A  See \_\_\_\_\_
- May cause change(s) in land use and economic development N/A  A  See \_\_\_\_\_
- May affect community cohesion N/A  A  See \_\_\_\_\_
- May affect public facilities and services N/A  A  See \_\_\_\_\_
- May involve impacts under Title VI and/or to other protected groups N/A  A  See \_\_\_\_\_
- May involve Environmental Justice issues N/A  A  See \_\_\_\_\_
- Involves impacts to pedestrian and/or bicycle facilities N/A  A  See \_\_\_\_\_
- Involves work within an air quality nonattainment or maintenance area (See Sections 26-11 and 26-12 and Checklist Items 27 and 28) N/A  A  See \_\_\_\_\_
- May require analysis of Mobile Source Air Toxics (See Section 26-13 and Checklist Item 30) N/A  A  See \_\_\_\_\_
- May require Microscale CO analysis (See Section 26-14 and Checklist Item 29) N/A  A  See \_\_\_\_\_
- May cause a highway traffic noise impact (See Section 26-6 and Checklist Item 26) N/A  A  See \_\_\_\_\_
- May involve other natural resource impacts (See Sections 26-15, 26-16, 26-17, and 26-18) N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

- May involve impacts to surface water and/or groundwater resources/quality (See Sections 26-19, 26-21, and 26-22 and Checklist Items 17, 20, 21 and 23) N/A  A  See \_\_\_\_\_
- May involve impacts to wetlands (See Section 26-8 and Checklist Items 15 and 16) N/A  A  See \_\_\_\_\_
- May involve special waste sites (See Section 27-2 and Checklist Items 31 and 32) N/A  A  See \_\_\_\_\_
- May involve conversion of Section 6(f) land (See Section 26-3 and Checklist Item 11) or OSLAD land (See Section 26-4 and Checklist Item 12) N/A  A  See \_\_\_\_\_

ENVIRONMENTAL ISSUES

3. Environmental and Cultural Surveys (See Chapter 27).

Required for all projects that would involve acquisition of additional right-of-way or easements (temporary or permanent), require any in-stream work or a drainage structure runaround, or that would potentially affect a recognized Illinois Natural Area Inventory Site or dedicated Illinois Nature Preserve, a wetland, or a location where a State- or Federal-listed species is known to occur. The surveys are initiated in response to submittal of an Environmental Survey Request to BDE.

Environmental and Cultural Surveys N/A  A  See \_\_\_\_\_

4. State Endangered Species Act Compliance (See Sections 26-9 and 27-1).

Consultation with IDNR is required for projects that will jeopardize the continued existence of a State listed species or have an adverse impact on its designated habitat. The consultation is done through the Environmental Survey Process (See Section 27-1).

Project exempt from ESR submittal N/A  A  See \_\_\_\_\_

BDE Biological Sign-off N/A  A  See \_\_\_\_\_

EcoCAT N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

Biological Resource Review Memorandum and IDNR Response	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Incidental Take Authorization	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Conservation Plan	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

5. Federal Endangered Species Act Compliance (See Section 26-9).

Coordination with the US Fish and Wildlife Service (USFWS) is required when a project “may affect” a Federally listed species or critical habitat. The early coordination is done through the Environmental Survey Process.

BDE Biological Sign-off	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Biological Resource Review & USFWS Response	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Biological Assessment and Biological Opinion	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Conservation Measures	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

6. Natural Areas and Land and Water Reserves (See Sections 26-9 and 26-19).

Consultation with the IDNR is required when a project is likely to result in the adverse modification of a natural area or when an action will disrupt natural vegetation or natural communities on a Land and Water Reserve. Coordination with the IDNR is accomplished through the Environmental Survey Process. For impacts to a Land and Water Reserve, a finding is required by the Nature Preserves Commission that the action is in the public interest.

Project impacts a Natural Area or a Land and Water Reserve	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Biological Resource Review memorandum and IDNR Response	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Land and Water Reserves Finding	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments/Mitigation	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

7. Nature Preserves.

It is the public policy of the State to avoid the planning of any action that would adversely affect a Nature Preserve. Coordination with the Illinois Nature Preserves Commission is required for projects that have the potential to affect Nature Preserves.

Project involves a Nature Preserve	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Coordination with the Nature Preserves Commission	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

8. Tree, Forest, Savanna, and Prairie Resources (See Section 26-16).

Coordination with IDNR is required for projects that would bisect or fragment a 20-acre (8 ha) or greater block of trees not associated with a stream corridor or involve the loss of woody riparian habitat within a stream corridor. Coordination with IDNR is also required for native prairie/savannas of any size that occur on or adjacent to highway right-of-way. Coordination with IDNR is accomplished through the Environmental Survey Process. Impacts to trees in the urban/suburban environment should be coordinated with a community's urban forester or other appropriate officials (See Section 26-16 and Departmental Policy D&E-18).

Project impacts areas of forest larger than 20 acres (8 ha) in size	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project impacts the woody riparian corridor of a stream	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project involves tree removal in the urban/suburban area	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project involves prairie or savanna areas	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Biological Resource Review Memorandum and IDNR Response	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Tree Assessment Report and Community response	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Mitigation	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

9. Coordination with USFS/USFWS for Federal Lands (See Section 22-5).

Required for involvement with Federal Lands (e.g., Shawnee National Forest, Midewin National Tallgrass Prairie).

USFS/USFWS Response re: Federal Lands      N/A     A  See \_\_\_\_\_

10. Section 4(f) Evaluation (See Section 26-2).

Required for Federally funded or approved projects that would use land from a significant publicly owned public park, recreation area or wildlife and waterfowl refuge, or any land from a significant historic site. Section 4(f) Evaluations are approved by FHWA.

FHWA confirms the property and the proposed use are subject to Section 4(f)      N/A     A  See \_\_\_\_\_

Proposed use qualifies for a *de minimis* impact determination      N/A     A  See \_\_\_\_\_

Proposed use qualifies for a programmatic evaluation      N/A     A  See \_\_\_\_\_

Proposed use requires an individual Section 4(f) evaluation      N/A     A  See \_\_\_\_\_

11. Section 6(f) Land Conversion Request (See Section 26-3).

Required when lands that have Land and Water Conservation (LAWCON) funds involved in their purchase or development will be converted to other than public outdoor recreation uses.

National Park Service (NPS)/IDNR Section 6(f) Land Conversion Approval      N/A     A  See \_\_\_\_\_

12. OSLAD Land Conversion Request (See Section 26-4).

Required when lands that have Open Space Land Acquisition and Development (OSLAD) funds involved in their purchase or development will be converted to other than public outdoor recreational uses.

IDNR OSLAD Land Conversion Approval      N/A     A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

13. Historic Act Compliance (See Section 26-5).

Coordination with the Illinois State Historic Preservation Officer is required for Federal and/or State funded projects that may affect properties included in or eligible for inclusion in the NRHP. Identification of properties on or eligible for the NRHP generally is accomplished through the Environmental Survey Process.

Archaeological Resource(s)	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Historic Building(s)	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Historic Bridge(s)	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Historic District(s)	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
BDE Cultural Resources Clearance	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
SHPO Clearance	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Memorandum of Agreement	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

14. Floodplain Encroachment Studies (See Section 26-7 of BDE Manual and Section 3-004 of the IDOT Drainage Manual).

Required for Federal or State funded projects that would involve encroachments in floodplains or that would otherwise affect base (100-year) floodplains.

Project occurs in the 100-year floodplain	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Floodplain Encroachment Studies	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

15. Wetlands Analyses and Compensation (See Section 26-8).

Required for any project that affects wetlands. Wetlands are identified, and necessary analyses are accomplished and coordinated, through the Environmental Survey Process.

Wetlands identified in the project area	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project affects wetlands	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Programmatic Review Action	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F**  
(Continued)

Standard Review Action	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Results of IDNR and USFWS Coordination	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Wetland Impact Evaluation Form	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Mitigation	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Wetland Compensation Plan	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

16. Wetlands Finding (See Section 26-8.05(e)).

Required for Federally-funded/regulated projects determined to have no practicable alternatives that avoid construction in wetlands.

Project involves unavoidable wetland impacts

N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
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17. Streams and Aquatic Habitat (See Section 26-19).

Early coordination with the appropriate agency or agencies is required for all projects that involve work within the stream banks that modifies or otherwise affects the streambed or stream banks. Examples include cofferdams, riprap, construction haul roads, work pads, abutment construction, pier placement and/or removal, bank clearing and excavation, channel excavation, channel change, weir construction, scour repair, and other similar activities. Early coordination with IDNR/USFWS is accomplished through the Environmental Survey Process. The Corps of Engineers may require mitigation for some types of construction activities (such as channel changes, removal of riparian habitat, etc.). Though permitting is a phase II activity, the phase I engineering report can lay the foundation for a quick and successful permitting effort by including appropriate information for the designer.

Project affects stream classified as navigable

N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
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Project affects stream designated as a Biologically Significant Stream

N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
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Project affects stream rated as "A" or "B" for Diversity or Integrity

N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
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**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

Project affects stream designated as an Illinois Natural Area	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
Project affects stream designated as Advanced Identification (ADID)	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
Project affects stream that contains endangered or threatened species	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
Stream Commitments	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
Stream Mitigation	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____

18. Wild and Scenic Rivers Act Coordination (See Part III, Appendix C).

Required for Federally assisted projects involving construction which could affect the free-flowing characteristics of a Wild and Scenic River or river designated for study as a potential addition to the National Wild and Scenic Rivers System.

Results of coordination with IDNR and Federal agency responsible for river segment (NPS, USFWS, Bureau of Land Management (BLM) or Forest Service (FS))	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
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19. Nationwide Rivers Inventory (NRI) (See Section 26-20).

Requires coordination with the NPS when a project has the potential for an adverse effect on a NRI stream. The identification and coordination of NRI streams is accomplished through the Environmental Survey Process. Additional coordination with BDE and NPS may be required.

Project crosses or is adjacent to a NRI stream	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
BDE Determination of No Effect	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
BDE Biological Resource Review memorandum/NPS response	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____
Commitments	N/A <input type="checkbox"/>	A <input type="checkbox"/>	See _____

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

20. Impaired Streams (See Section 26-21).

Requires identification of streams that the Illinois Environmental Protection Agency (IEPA) has listed as impaired in the most recent Integrated Illinois Water Quality Report and Section 303(d) List. Also requires a determination that the project will not contribute to the causes of the stream's impairment.

Project affects stream listed as impaired	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project will contribute to the impairment	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

21. Total Maximum Daily Load (TMDL) (See Section 26-21).

Requires the identification of streams that have a draft or final TMDL. Also requires a determination that the project will not contribute to causing pollutant levels to exceed the TMDL.

Project affects stream with a draft/final TMDL	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project will contribute to exceeding the TMDL threshold	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project will comply with the TMDL	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

22. Karst Topography (See Section 26-22).

Requires the identification of projects that occur within areas containing karst features (sinkholes, depressions, caves, and underground drainages).

Project is within a karst region	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Project affects karst feature(s)	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Measures to minimize impacts to karst feature(s)	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Commitments	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

23. Special Resource Groundwater (See Section 26-22).

Projects within the groundwater recharge area of a designated Special Resource Groundwater must be coordinated with IDNR. These designated areas are identified through the Environmental Survey Process.

Project occurs within a designated Special Resource Groundwater recharge area      N/A     A  See \_\_\_\_\_

Biological Resource Review Memorandum/IDNR Response      N/A     A  See \_\_\_\_\_

Commitments      N/A     A  See \_\_\_\_\_

24. Federal AD1006 Form for Evaluation of Farmland Conversion Impacts (See Section 26-10).

Required for Federally funded or approved projects that require additional right-of-way outside of any corporate limits and the proposed acquisition exceeds 3 acres/mile (0.75 ha/km) (total acquisition divided by project length) or total acquisition for spot improvements exceeds 10 acres (4 ha) (includes bridges, intersections, rest areas, and weigh stations).

AD1006 Form      N/A     A  See \_\_\_\_\_

25. State Farmland Preservation Act Compliance (See Section 26-10).

Required for State highway and bridge projects funded in whole or in part with State funds that require additional right-of-way outside any corporate limits and involve either or both of the following conditions:

- right-of-way acquisition exceeds 3 acres/mile (0.75 ha/km) (total acquisition divided by project length) or 10 acres (4 ha) total for a non-linear (spot) improvement including bridges, intersections, rest areas, and weigh stations; and/or
- the proposed improvement includes one or more alternate alignments in which the proposed right-of-way diverges from, and is not contiguous to the existing right-of-way.

Response from Illinois Department of Agriculture (IDOA)      N/A     A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

26. Noise Analyses (Including Construction Noise; See Section 26-6).

Required for projects involving the construction of a highway on new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.

Noise Analysis N/A  A  See \_\_\_\_\_

27. Air Quality Conformity Documentation (See Section 26-11).

Required for all State highway projects funded or approved by FHWA under Title 23 USC and to "regionally significant projects" in nonattainment or maintenance areas, regardless of whether such projects are Federally funded or approved under Title 23.

Project is within a nonattainment or maintenance area N/A  A  See \_\_\_\_\_

Statement on Conformity N/A  A  See \_\_\_\_\_

28. Transportation Conformity Project-Level Qualitative Hot-Spot Analysis in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas (See Section 26-12).

Required for Federally funded or approved projects that are an "air quality concern" in PM<sub>2.5</sub> and PM<sub>10</sub> nonattainment and maintenance areas.

Project is within a PM<sub>2.5</sub> and PM<sub>10</sub> nonattainment or maintenance area N/A  A  See \_\_\_\_\_

Project is an "air quality concern" and requires qualitative hot-spot analysis N/A  A  See \_\_\_\_\_

29. Microscale Carbon Monoxide (CO) Analysis (See Section 26-14).

Evaluation of the need for microscale CO analysis is required for all projects. Analysis may be necessary if the project will increase capacity, such as through the addition of through lanes or auxiliary turn lanes.

Project adds through lanes or auxiliary turning lanes N/A  A  See \_\_\_\_\_

Microscale CO analysis N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

30. Mobile Source Air Toxics (MSAT) (See Section 26-13).

The need for analyzing MSAT must be considered for all highway projects. FHWA has identified three levels of analyses, as follows:

- no analysis for projects with no potential for meaningful MSAT effects,
- qualitative analysis for projects with low potential MSAT effects, or
- quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

No potential for meaningful MSAT effects	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
MSAT qualitative analysis	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
MSAT quantitative analysis	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

31. Special Waste Assessment (SWA) (See Section 27-2).

Special waste screening is required for all State highway projects.

Level I or II screening	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
PESA performed	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Recognized Environmental Condition(s) (REC) identified	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
REC(s) involved with project	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Remedial Investigation/Feasibility Study (RI/FS) and Risk Assessment	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Remediation	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

32. Validity of Special Waste Results (See Section 27-2.08).

Property audits for special waste/regulated substance contamination are only considered valid for a period of six months. Before submitting draft or final environmental documents or approving Phase I engineering documents, determine if more than six months have elapsed since the last evaluation for special waste/regulated substance contamination. If more than six months have passed, reevaluate the project area to determine if land uses have changed on areas previously identified. If so, further screening/investigations for special waste should be initiated.

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

More than six months have elapsed since last SWA	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
New REC(s) identified	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
New REC(s) involved with project	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
New RI/FS and Risk Assessment	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Additional Remediation	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

**PERMITS AND CERTIFICATIONS**

33. **Section 404 Permit (See Section 28-2).**

Required from the Corps of Engineers (Corps) for the discharge of dredged or fill material into waters of the United States.

Project involves discharge(s) of dredged or fill material subject to Section 404	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Discharge(s) eligible for nationwide permit	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Discharge(s) eligible for regional permit	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
Discharge(s) require individual permit	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____

34. **Section 401 Water Quality Certification (Section 28-2).**

Required for an individual Section 404 permit, nationwide permit 23 (approved categorical exclusions), and some other regional and nationwide permits that have been conditioned.

Individual Water Quality Certification	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
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35. **Section 9 Permit (See Section 28-2).**

Obtained from the US Coast Guard for the construction, modification, replacement or removal of bridges or causeways affecting navigable waters of the US. Applied for by the Bureau of Bridges and Structures. Requires an individual water quality certification from IEPA.

Section 9 permit	N/A	<input type="checkbox"/>	A	<input type="checkbox"/>	See _____
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**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

36. Section 10 Permit (See Section 28-2).

Obtained from the Corps for certain structures or work (other than bridges and causeways) affecting the navigable waters of the United States.

Section 10 permit N/A  A  See \_\_\_\_\_

37. Section 402 National Pollutant Discharge Elimination System (NPDES) Point Source Permit (See Section 28-2).

Required for projects (e.g., rest areas) that involve a point source discharge of pollutants into waters of the United States.

NPDES point source permit N/A  A  See \_\_\_\_\_

38. Section 402 NPDES Construction Permit (See Section 28-2).

Required for projects that will involve clearing, grading, and excavation activities that result in the disturbance of 1 acre (4047 m<sup>2</sup>) or more of total land area.

NPDES construction permit N/A  A  See \_\_\_\_\_

39. IDNR/Office of Water Resources (OWR) Floodway Permit (See Section 28-3).

Required for construction in the floodway of identified streams serving a tributary area of 640 acres (259 hectares) or more in urban areas or 6400 acres (2590 hectares) or more in rural areas. Applied for by Bureau of Bridges and Structures (for bridges) or district (for culverts, embankments, storm sewers, or other construction within the floodplains of applicable streams and rivers).

Floodway permit N/A  A  See \_\_\_\_\_

40. IDNR/OWR Public Waters Permit (See Section 28-3).

Required for construction in rivers, lakes, streams, and waterways considered "public waters." (See list of Public Bodies of Water in *IDOT Drainage Manual*.) Applied for by Bureau of Bridges and Structures (for bridges) or district (for culverts, embankments, storm sewers, or other construction affecting public waters).

Public waters permit N/A  A  See \_\_\_\_\_

41. IDNR/OWR Permit for Floodway Construction in Northeastern Illinois (See Section 28-3).

Required for new construction within the regulatory floodways of rivers, lakes, and streams in Cook, DuPage, Kane, Lake, McHenry and Will counties, excluding the City of Chicago.

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

Northeastern Illinois  
floodway construction permit

N/A  A  See \_\_\_\_\_

### COORDINATION ISSUES

42. Discussion at District Coordination Meeting (See Section 22-5.03).

The environmental discussion should address the potential for unusual circumstances, the project classification (CE I, CE II, EA, EIS), the potential for significant environmental impact(s) or controversy, and the use of technical reports to determine issues of significance, as appropriate. Include the meeting minutes in the Phase I report.

See \_\_\_\_\_

43. Coordination with Division of Aeronautics (See Section 11-2).

Required for projects that have obstructions greater than 15 feet (4.6 m) in height or that are on a new vertical or horizontal alignment and are within 2 miles (3.2 km) of public airports, within 1 mile (1.6 km) of private airports or within 0.5 miles (800 m) of a restricted landing strip.

Response from Division of Aeronautics N/A  A  See \_\_\_\_\_

44. Coordination with Federal Aviation Administration (FAA) (See Section 11-2).

Required for publicly owned airports.

Response from FAA N/A  A  See \_\_\_\_\_

45. Railroad Coordination.

Required for projects involving a railroad crossing.

Response from Railroad Company N/A  A  See \_\_\_\_\_

46. Drainage District Coordination.

Required for projects involving in-stream work affecting a water body under the jurisdiction of a drainage district.

Response from drainage district N/A  A  See \_\_\_\_\_

### **CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

47. Context Sensitive Solutions (CSS) Coordination (See Section 19-2).

If the project is being developed using the principles of CSS, the results of coordination and meetings for the stakeholder involvement process should be appended to the Phase I engineering report.

CSS Coordination N/A  A  See \_\_\_\_\_

48. Other Coordination.

Examples include, but are not limited to, interested and/or affected officials, organizations local agencies and agencies with jurisdiction by law regarding a project issue.

Coordination responses N/A  A  See \_\_\_\_\_

OTHER ANALYSES

49. Hydraulic Analysis/Report (See 2-602 of the IDOT Drainage Manual).

Required for all drainage structures designed or reviewed by the central Bureau of Bridges and Structures.

Hydraulic analysis/report N/A  A  See \_\_\_\_\_

50. Crash Data and Analysis (See Section 11-2).

Required for all projects.

See \_\_\_\_\_

51. Bridge Condition Report (See Chapter 39).

Required for all bridge work.

Bridge Condition Report Approval Letter N/A  A  See \_\_\_\_\_

52. Pavement Design (See Chapter 54).

Required for all projects involving new construction, widening greater than 6 ft (1.8 m), with greater than 4750 yd<sup>2</sup> (4000 m<sup>2</sup>) of new pavement or relocations.

Pavement Design N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (Continued)**

53. Transportation Management Plan (See Chapter 13).

Required to indicate how traffic will be maintained during reconstruction or rehabilitation.

Transportation Management Plan N/A  A  See \_\_\_\_\_

54. Geotechnical Report (See Section 11-2).

Required for projects on new alignment or new pavement over 3000 yd<sup>2</sup> (2500 m<sup>2</sup>). A Structural Geotechnical Report is required for all structures requiring new foundations, (e.g., box culverts, bridges, retaining walls).

Geotechnical Report N/A  A  See \_\_\_\_\_

55. Mailbox Supports (See Chapters 49 and 58).

Have supports been investigated and property owners contacted?

N/A  A  See \_\_\_\_\_

56. Bicycle Accommodations (See Chapter 17).

Have accommodations been considered and investigated?

N/A  A  See \_\_\_\_\_

57. Accessibility for the Disabled (See Chapter 58).

Required for all projects in an urban section.

Provisions for disabled access N/A  A  See \_\_\_\_\_

58. Asbestos Determination Certification Form.

Required for all structures that may be affected by the project. If the structure has been determined to involve asbestos, place a copy of the form in the commitment file.

Asbestos Determination Form N/A  A  See \_\_\_\_\_

**CHECKLIST FOR PHASE I REPORTS**

**Figure 12-3.F (End)**

### 12-3.10 Phase I Report Exemptions

There are certain projects that are not complex from an engineering standpoint. In addition, they do not cause sufficient impacts to require the preparation of a Phase I report. In this case, the district prepares a set of documents designated as the Plans, Specifications, and Estimates (PS&E).

The following project types (and combinations thereof) that are constructed within existing right-of-way will not require Project Reports and, therefore, are intended to expedite processing and design approval:

1. traffic signal modifications and installations of new signals;
2. signing;
3. pavement markings not affecting the number of through traffic lanes;
4. anti-skid treatments and pavement reprofiling;
5. curb and/or gutter repairs and construction of curb ramps for the disabled;
6. bridge repairs, which do not require traffic detours or runarounds, including:
  - a. bridge rail replacement;
  - b. bridge deck overlay and waterproofing;
  - c. expansion joint replacement;
  - d. bearing replacement;
  - e. repairs to deck, partial or full depth;
  - f. repairs to damaged rails, corroded or damaged structural steel members, and deteriorated areas of concrete elements including sidewalks, curbs, water tables, girders, and portions of the substructure above ground or water;
  - g. painting of structural steel; and
  - h. individual stringer replacement for a portion of a superstructure;

*\*Note: All items under Number 6 require coordination with the Bureau of Bridges and Structures prior to preparation of final plans. Additionally, Item 6a requires TSL plan approval and Item 6e requires approval of a "Bridge Deck Condition Report."*

7. the following lighting and electrical work:
  - a. continuous and tower lighting,

- b. tunnel lighting,
  - c. temporary lighting,
  - d. bridge lighting,
  - e. pedestrian lighting,
  - f. pumping station,
  - g. highway advisory radio,
  - h. control systems for changeable lanes,
  - i. traffic monitoring systems, and
  - j. changeable message signing;
8. landscaping;
  9. the following stormwater control within existing right-of-way:
    - a. slope repair,
    - b. ditch and culvert cleaning, and
    - c. miscellaneous storm sewer work to eliminate ditch (which does not reduce necessary urban runoff storage/retention);
  10. impact attenuator and glare screen installations;
  11. the following isolated highway-railroad grade crossing improvements:
    - a. repair/rehabilitation of crossing proper,
    - b. rehabilitation of immediate roadway approaches to crossing, and
    - c. upgrading of crossing protection;
  12. the following restoration projects:
    - a. retaining wall repair (coordinate with Bureau of Bridges and Structures),
    - b. fencing,
    - c. guardrail repair,
    - d. pavement and shoulder patching/sealing,
    - e. intermittent resurfacing, and
    - f. repairs to drainage structures not requiring traffic detours or runarounds;
  13. installation of turning lanes within an existing median;
  14. junkyard screenings;
  15. upgrading safety features;
  16. approval of utility installations along or across a transportation facility, excluding longitudinal installations within the access control lines of Interstate and freeway rights-of-way;
  17. activities included in the highway safety plan developed pursuant to 23 USC 402;

18. alterations to existing buildings to provide for noise reduction and/or the installation of noise abatement barriers;
19. emergency repairs under *23 USC 125* that do not substantially change the design of the facility and are commenced during or immediately after the occurrence of a declared national disaster;
20. acquisition of scenic easements;
21. minor improvements to existing rest areas and truck weigh stations that do not require changes to the geometrics or to the number of parking stalls;
22. installation of noise barriers;
23. approval of air space agreements; and
24. disposal of excess right-of-way.

## **12-4 ESTIMATE OF COST FORMATS**

### **12-4.01 Corridor or Feasibility Studies**

These studies are general in nature and are usually comparing alternative corridors or locations. Therefore, the cost estimate is generalized and is made on a per-mile (per-kilometer) basis or by assigning lump-sum dollar amounts to major items.

The format of the cost estimate sheet should only cover major items plus a contingency figure. As a guide in preparing generalized estimates, see Chapter 65 or the latest instructional manual for preparing an Interstate Cost Estimate.

### **12-4.02 Design Reports, Combined Design Reports, and State Improvement Reports**

Figure 12-4.A presents the cost items normally used for major projects. See Section 12-1.02 for a description of typical projects in this category. Items may be added or further divided as necessary to properly identify costs on specific projects. Individual cost estimate sheets are usually necessary for each construction segment, which then make up the total cost of each alternative. This segment type format allows the project to be easily programmed for multi-year construction and to provide for usable highway segments. Individual major elements such as interchanges or bridges are listed separately to identify their location and costs. For additional guidance, see Chapter 65.

### **12-4.03 Project Reports and Other Reports**

Figure 12-4.B presents a sample cost estimate form with work classification elements considered appropriate for a Project Report or Abbreviated Project Report. This form may be copied and inserted directly into reports or may be modified to fit a specific improvement.

For other reports (e.g., 3P Reports, SMART Reports), the cost estimate is completed on work sheets and the total cost for the project is listed in the report; see forms BDE 2564 and BDE 2565. For improvements not requiring a Project Report (i.e., Phase I Report Exemptions, see Section 12-3.10), the cost estimate is prepared at the same time as the PS&E package and itemized by pay items.

**COST ESTIMATE**

Date: \_\_\_\_\_  
 Route: \_\_\_\_\_  
 Section: \_\_\_\_\_

Designer: \_\_\_\_\_  
 City/County: \_\_\_\_\_  
 Base Year: \_\_\_\_\_

WORK CLASSIFICATION	Estimated Costs in \$1000's					
	Segments					
	1	2	3	4	5	Totals
1. Clear and Grub (Minor removal items and demolition)						
2. Earthwork						
a. Mainline grading and drainage (minor structures).						
b. Frontage road grading and drainage (minor structures).						
3. Pavement						
a. Mainline subbase, base, surface, and shoulder						
b. Frontage road, subbase, base, surface, and shoulder						
4. Grade Separations						
a. Railroads						
b. Highway grade separations, including earthwork and pavement (without ramps). List each separately.						
c. Structure removal						
5. Interchanges (structure, crossroad and ramp earthwork, and crossroad and ramp pavements). List each separately. (Do not include mainline grading or pavement.)						
6. Structures						
a. Drainage (major structures)						
b. Walls (retaining or reinforced earth)						
7. Miscellaneous Items						
a. Guardrail, fencing, and lighting						
b. Traffic control						
c. Traffic signals (modernization or new)						
d. Signing						

**COST ESTIMATE FORMAT  
(Complex Projects)**

Figure 12-4.A

e. Railroad Crossing Improvements						
f. Field Office and Laboratory						
8. Other Items						
a. Construction Site Stormwater Pollution Control						
b. Landscaping						
c. Rest areas or other amenities						
d. Environmental mitigation						
9. Transportation Management Plan Costs						
a. Crossovers						
b. Temporary roadways						
c. Detours						
10. Subtotal (Categories 1 - 9)						
11. Contingencies (___% of Line 10). (Should not exceed 20%).						
12. Total Construction Cost (Lines 10 and 11)						
13. Right-of-Way						
a. Residential property and relocations						
b. Farm and business property and relocations						
14. Utility Adjustments						
15. *Preliminary Engineering (___% of Line 12).						
16. *Construction Engineering (___% of Line 12)						
17. Total Project Cost (Lines 12 - 16)						
18. Local Participation						

Note: *\*If consultant work is anticipated for preliminary engineering or construction engineering, these items should be listed separately in submission of costs for programming purposes.*

**COST ESTIMATE FORMAT  
(Complex Projects)**

**Figure 12-4.A  
(Continued)**

**COST ESTIMATE**

Date: \_\_\_\_\_

Designer: \_\_\_\_\_

Route: \_\_\_\_\_

City/County: \_\_\_\_\_

Section: \_\_\_\_\_

Base Year: \_\_\_\_\_

WORK CLASSIFICATION	Estimated Costs in \$1000's
1. Clearing; Minor Removal Items	
2. Earthwork	
3. Construction Site Stormwater Pollution Control	
4. Drainage	
5. Subbase, Base, Surface, Shoulders	
6. Guardrail, Roadside Safety	
7. Traffic Signals (Modernization or New)	
8. Detours, Temporary Traffic Control - Roadway	
9. Railroad Crossing Improvements	
10. Field Office and Laboratory	
11. Environmental Mitigation/Incidental Items	
12. Roadway Subtotal (Categories 1-11)	
13. Structure Removal	
14. Major Culverts	
15. Bridges	
16. Structures for Detours and Temporary Traffic Control	
17. Structure Subtotal (Categories 13 - 16)	
18. Roadway and Structure Subtotal (Lines 12 and 17)	
19. Contingencies (___% of Line 18) (should not exceed 15%)	
20. Total Construction Cost (Lines 18 and 19)	
21. Utility Adjustments	
22. Land Acquisition and Relocations	
23. *Preliminary Engineering (___% of Line 20)	
24. *Construction Engineering (___% of Line 20)	
25. Total Project Cost (Lines 20 - 24)	

Note: *\*If consultant work is anticipated for preliminary engineering or construction engineering, these items should be listed separately in submission of costs for programming purposes.*

**COST ESTIMATE FORMAT  
(Project Reports)**

**Figure 12-4.B**

## 12-5 PROCESSING AND APPROVAL OF PHASE I REPORTS

To ensure uniform designs throughout the State, representatives from BDE and the FHWA, if applicable, attend regularly scheduled district coordination meetings to discuss proposed highway improvements for the annual and multi-year programs. These meetings allow the districts to discuss the proposed design of projects and any alternatives, whether or not public involvement is required, type of report processing, expected environmental issues, and the possibility for design exceptions.

This meeting process allows for considerable discussion during project development and ensures that the proper design is being proposed before a Phase I engineering report is written and completed. This process also helps ensure that reports will cover the appropriate information and that projects are being designed cost-effectively. If projects include accommodation for bicycles, notify BDE's Bicycle Coordinator. For exceptions to geometric design criteria, see Chapter 31.

Because the Department is operating under a Project Oversight Agreement, Department personnel typically give design approval of the engineering aspects of a project.

For major studies, the Phase I project development networks in Chapters 2 and 3 illustrate the location/design study coordination for environmental studies, public involvement activities, and processing requirements for reports on major studies.

### 12-5.01 Corridor and Feasibility Study Reports

For Corridor and Feasibility Study Reports, the following will apply:

1. Submittal of Reports. BDE will approve a highway corridor only after the following has occurred:
  - The requirements of Chapter 11 and other applicable laws and regulations (e.g., those related to Chapter 19 and Part III "Environmental Procedures") have been met.
  - The public involvement activities as required by Chapter 19 have been fulfilled.
  - If the National Highway System (NHS) is involved with the corridor, coordination and oversight with the FHWA has been completed. This is usually accomplished at district coordination meetings or at special district meetings. Include the minutes of these meetings in the report.
  - The district has submitted three copies of a Corridor Report or Feasibility Study Report and any separate appendices to the Report.
  - One copy of the Public Involvement Document has been submitted, if applicable, which assembles all letters received, comments received, and copies of advertising notices published in newspapers that describe dates and details for informational meetings.

- The district has written a detailed memorandum describing the reasons for selecting the recommended corridor, the items submitted, and requesting corridor approval.
2. Corridor Approval. The Bureau Chief of Design and Environment will grant corridor approval with concurrence of the Director of the Division of Highways. The Secretary of IDOT and the Director of the Office of Planning and Programming should also be contacted on their desire for a briefing meeting before approval is granted.
  3. Feasibility Study Approval. For feasibility studies which do not involve a corridor, concurrence of the recommendations will be by the Bureau Chief of Design and Environment.

### **12-5.02 Design Reports**

For Design Reports, the following will apply:

1. Submittal of Reports. The designer will submit the Design Report to the Regional Engineer for approval, except those involving major new alignment. Submit a copy of approved Design Report to BDE. For projects requiring major realignment, submit the Design Report to BDE for approval. BDE will approve a highway on new alignment (e.g., freeway, expressway, bypass) which is documented in a Design Report only after the following has occurred:
  - The corridor has been approved.
  - The applicable requirements of Chapter 11 and other applicable laws and regulations (e.g., those related to Chapter 19 and Part III “Environmental Procedures”) have been met.
  - The appropriate number of copies of the FEIS or EA and Appendix A have been submitted by the district as described in Part III “Environmental Procedures.”
  - The district has submitted two copies of the Design Report and Appendices including copies of any Technical Reports listed in Section 11-5.04(h).
  - The Bureau of Design and Environment’s Bicycle Coordinator has been notified. See Chapter 17 for Bicycle and Pedestrian Accommodation.
  - The public involvement activities as required by Chapter 19 have been fulfilled.
  - If the proposed highway is part of the designated National Highway System (NHS), coordination and oversight with the FHWA have been completed. This is usually accomplished by special district meetings with the FHWA. Include the minutes of these meetings in the report.

- Two copies of the Public Involvement Document have been submitted which assembles all letters received, comments received, copies of advertising notices published in newspapers for informational meetings and public hearings, and the disposition of comments.
  - Two copies of the Advisory Committee/Working Groups Document have been submitted, if applicable, which provides the description and summary of this process. See Chapter 19 for details.
  - BDE and/or FHWA has concurred and approved any design exceptions to the project as discussed in Chapter 31. FHWA must approve Level 1 design exceptions on the Interstate. These are not covered by IDOT's Project Oversight Agreement procedures.
  - The district has written a memorandum describing the reasons for selecting the recommended alignment and design features, the items submitted, and requesting design approval.
2. Design Approval. Before design approval on the engineering aspects of a project can be given, FHWA must approve the FEIS (Record of Decision) or EA (FONSI). Once the environmental document is approved, the Regional Engineer, or the Bureau Chief of Design and Environment for projects on major new alignment with concurrence of the Director of the Division of Highways, will grant design approval. The Secretary of IDOT and the Director of the Office of Planning and Programming should also be contacted on their desire for a briefing meeting before design approval granted. A sample design approval sign-off sheet is shown in Figure 12-5.A.

### 12-5.03 Combined Design Reports

For Combined Design Reports, the following will apply:

1. Submittal of Reports. The designer will submit the Combined Design Report to the Regional Engineer. Submit a copy of approved Report to BDE. The Regional Engineer may approve a proposed improvement where the corridor or location has been predetermined and is documented in a Combined Design Report only after the following has occurred:
  - The applicable requirements of Chapter 11 and other applicable laws and regulations (e.g., those related to Chapter 19 and Part III "Environmental Procedures") have been met.

**FEDERAL AID PRIMARY ROUTE 413  
FROM INTERSTATE ROUTE 270 AND INTERSTATE  
ROUTE 255 INTERCHANGE IN MADISON COUNTY  
TO ILLINOIS ROUTE 267 NORTH OF ALTON, ILLINOIS  
IN MADISON COUNTY**

**FINAL DESIGN REPORT**

Prepared by  
the Illinois Department of Transportation

August 1998

The proposed action is the construction of approximately 21 miles (34 km) of four-lane, fully access-controlled, divided highway. The proposed highway extends from the directional interchange of I-270 and I-255 west of Glen Carbon to Illinois Route 267 north of Alton.

This Design Report addresses the no-action alternative and the option of improving existing highways in the study area. Detailed studies for five build alternatives are also presented in this document.

An Environmental Impact Statement has been prepared and approved in conjunction with this Design Report and assesses the potential social, economic, and environmental effects of the various alternatives. The recommended alternative for construction is Alternative C.

Design Approval \_\_\_\_\_  
Regional Engineer or Bureau of Design & Environment                      \_\_\_\_\_  
Date

**EXAMPLE OF DESIGN APPROVAL SHEET  
(Major Type Project)**

**Figure 12-5.A**

- The appropriate number of copies of the FEIS or EA and Appendix A have been submitted by the district as described in Part III “Environmental Procedures”; or if the project qualifies as a Categorical Exclusion, the environmental documentation is included in the Combined Design Report.
  - The public involvement activities as required by Chapter 19 have been fulfilled.
  - Two copies of the Public Involvement Document have been submitted which assembles all letters received, comments received, copies of advertising notices published in newspapers for informational meetings and public hearings and the disposition of comments.
  - Two copies of the Advisory Committee/Working Groups Document have been submitted, if applicable, which provides the description and summary of this process; see Chapter 19 for details.
  - BDE and FHWA have concurred, and BDE has approved, any design exceptions to the project. However, if the project involves the Interstate, FHWA must approve any Level 1 design exceptions.
  - The district has written a memorandum describing the reasons for selecting the recommended alignment and design features, the items submitted, and requesting design approval.
2. Design Approval. If an FEIS or EA is required for the project, FHWA must approve the separate environmental document before design approval can be given on the Combined Design Report by BDE. If the project qualifies as a Categorical Exclusion type project, design approval is obtained from BDE along with concurrence of the environmental issues as described in the report. FHWA signs the EA document that applies to environmental studies and grants Categorical Exclusion concurrence.

On most projects, design approval will be granted by Regional Engineer. For controversial projects, the Bureau Chief of Design and Environment and the Director of the Division of Highways should be contacted on their desire for a briefing meeting before design approval is granted.

#### **12-5.04 State Improvement Reports**

For State Improvement Reports, the following will apply:

1. Submittal of Reports. Projects in this category are similar to those covered in a Combined Design Report (major improvements) except that a decision was made during the programming process not to use Federal funds on the project. The Regional Engineer approves projects in this category without FHWA involvement after the following has occurred:

- The public involvement activities as required by Chapter 19 have been fulfilled.
  - Environmental information and documentation have been completed. Use the EA record form as a checklist to determine potential project impacts. Include a summary and analysis of impacts as a separate section in the report.
  - The district has submitted two copies of the State Improvement Report and Appendices including copies of any Technical Reports.
  - BDE has concurred in and approved any design exceptions to the project.
  - The district has written a memorandum describing the reasons for selecting the recommended design alternative, the items submitted, and requesting design approval.
2. Design Approval. Design approval will be granted by the Regional Engineer. For controversial projects, the Bureau Chief of Design and Environment and the Director of the Division of Highways should be contacted on their desire for a briefing meeting before design approval will be granted.

#### **12-5.05 Other Type of Reports**

##### **12-5.05(a) Submittal of Reports**

Projects in this category of improvement are documented by using an Abbreviated Project Report (Figures 12-3.B and 12-3.C), a Project Report (Figure 12-3.A), a 3P Report (form BDE 2564), or a SMART Report (form BDE 2565).

For certain types of projects as listed in Section 12-3.10, the preparation of a report to document engineering decisions is not required. These projects, which are exempt from the preparation of a Phase I engineering report, require no right-of-way and are prepared only as a PS&E submittal to BDE.

For these Reports, the Regional Engineer gives the design approval. Submit one copy of the signed report to BDE. Phase I Report Approval (BDE 2601) is the required approval form for Project Reports. 3P Report (form BDE 2564) and SMART Report (form BDE 2565) provide entry lines for design approval at the end of the forms.

Before any reports can be finalized, the district and the BDE regional field engineers must determine if any design exceptions on the project are required and, if so, concurrence of the exception must be approved by the Regional Field Engineer through discussions at a district coordination meeting. See Chapter 31 for guidelines on design exceptions.

**12-5.05(b) Regional Engineer Approvals**

Approval authority is granted to Regional Engineers for all project reports except for Corridor, Feasibility Studies, and Design Reports involving major new alignment. In addition, note the following:

1. **New Right-of-Way.** For projects requiring 3 acres per mile (0.75 hectares per kilometer) or more of new right-of-way, the Regional Engineer may approve these projects provided the following have been met:
  - all coordination procedures with resource agencies (e.g., IDNR, IDOA) have been followed;
  - the Environmental Section and resource agency sign-offs have been obtained;
  - all design exceptions have been approved by the BDE Regional Field Engineers; and
  - the necessary geometric design approvals have been issued by BDE.
2. **Intersection/Interchange Improvements.** District geometric engineers may approve intersection/interchange improvement projects provided an intersection/interchange design study has been prepared according to the criteria in Chapter 14 or Chapter 15 and the district geometrics engineer has been certified by Director of Highways/Chief Engineer. If the district geometrics engineer has not been certified, submit the intersection design study to BDE for approval. At times, a certified district geometrics engineer may be transferred into a position with responsibilities different than those involved when the certification was obtained. For these cases, BDE must reissue the certification in writing for the new district geometrics engineer. Once the new district geometrics engineer has been certified, the district geometric engineer may again approve intersection/interchange improvement projects and intersection design studies as stated above.
3. **Structure Improvement Projects.** Regional Engineers may approve the following non-Interstate projects, with no in-stream impacts, provided the usual approvals, including bridge deck milling and resurfacing, are received from the Bureau of Bridges and Structures and concurrence on the bridge width is received from the Regional Field Engineer:
  - a. **Stream Crossings.** Approval may be granted for stream crossings where the existing waterway opening and design highwater clearance are satisfactory and will be retained, and there will no additional lanes added to the structure. These projects may include bridge deck replacements, bridge superstructure replacements, and bridge widening with no substructure work. The Bureau of Bridges and Structures must provide concurrence of the Bridge Condition Report and hydraulic clearances prior to the Regional Engineer's approval.

- b. Grade Separations. Approval may be granted for rehabilitation of grade separations where the existing vertical clearances are acceptable and can be maintained and where there will be no additional lanes added to the structure. These projects may include bridge deck replacements, bridge superstructure replacements, and bridge widening with some substructure work to meet current horizontal clearance requirements. The Bureau of Bridges and Structures must provide concurrence of the Bridge Condition Report prior to the Regional Engineer's approval.
4. 3P and SMART Projects. Regional Engineers will typically approve these projects. Discuss these projects at the district coordination meetings to determine if there is a potential for unusual circumstances or if any design exceptions are required.

The Regional Engineer may only re-delegate authority to signoff on projects to the district Program Development Engineer. To ensure the approval authority outlined above for Regional Engineers is being exercised uniformly on a Statewide basis and to provide consistency in project development procedures, quality reviews will be conducted annually by BDE and FHWA. This will allow the Department to maintain the integrity of its Project Oversight Agreement with FHWA.

#### **12-5.05(c) Bureau of Design and Environment Approvals**

For any type of proposed improvement not eligible for Regional Engineer approval (i.e., Corridor, Feasibility and Design Reports with major new alignment), the report is submitted and approved by BDE.

#### **12-5.06 Reports for Routes with Combined Jurisdictions**

Where BDE and the Bureau of Local Roads and Streets (BLR&S) have joint jurisdiction of a facility, the following sections will apply.

##### **12-5.06(a) State Highway System**

For Federal-aid projects, use the Department's Project Oversight or Exempt Procedures; see Chapter 31. It will not be necessary to submit Project Reports to FHWA for design approval or concurrence except for projects on the Interstate system. However, FHWA still has oversight responsibilities on all Federal-aid projects that have any potential for significant environmental impacts and/or involvement with multilane access-controlled facilities on the National Highway System (NHS). In addition, all Group II Categorical Exclusion projects with potential for "unusual circumstances" must be discussed with FHWA at district coordination meetings. In addition, consider the following:

1. No Jurisdictional Transfer. The following applies to all State routes, marked or unmarked:
  - a. Reports. Discuss all projects at district coordination meetings before finalizing and submitting any reports. Reports prepared by the district or their consultant should

be submitted to BDE for review, approval, or information. Reports prepared by the local agency or their consultant should be submitted to BLR&S for review, approval, or information. When the need for a design exception is discovered at the local coordination meeting on routes under State Jurisdiction, BLR&S will coordinate and discuss this information with BDE prior to approval action.

- b. NHS Facilities. If a local agency is preparing the report for a State highway on the NHS, BDE will review the highway geometrics and cross-section design during the development of preliminary alternatives stage. Once the geometrics and cross-section designs are agreed to, BLR&S will review the report and process it accordingly.
2. Jurisdictional Transfer to a Local Agency. The following will apply:
- a. Federal Funds. Regardless of which agency initiates a project, submit the Project Report to BLR&S for review and approval. When the State is providing matching funds, BLR&S will coordinate the design requirements with BDE prior to approval.
  - b. State-Only Funds. The preparation of a Project Report will usually be required. Submit the report to BDE for review and approval, as required, when reports are prepared by the district or their consultant, or to BLR&S if a local agency or their consultant prepared the report. The local agency should coordinate the proposed design with the district BLR&S before submitting the report to the Central Office.
  - c. District Coordination Meetings. For jurisdictional transfers using either Federal funds or State-only funds, it is imperative that these projects be discussed at the district coordination meetings. This will allow BDE and BLR&S to become aware of proposed design features and costs and to determine if the project is still the same as originally discussed during programming meetings.
  - d. Agreements. Ensure all joint projects conform to the Department's participation policies for joint agreements; see Chapter 5.
  - e. Review of Agreements. After joint agreements are finalized by district and submitted to BLR&S, BLR&S will forward agreements to BDE for their review and concurrence. In addition to the normal review by the BDE Preliminary Engineering Section, the Regional Field Engineers will also review the agreement for proper design content.

#### **12-5.06(b) Local Highway System**

The following will apply to projects on the local highway system (e.g., county highways, township roads, municipal streets):

1. Federal Funds. Submit the Project Report to BLR&S for review, coordination, and approval. When the State highway system is involved (e.g., an intersection with a State highway), the district geometrics engineer will review the design to the extent appropriate

and obtain any approvals of exceptions to geometric policy from BDE. Concurrence with the intersection design should be accomplished prior to submittal of the report to BLR&S for approval.

2. Other Funds. No report will be necessary. Environmental coordination and design exceptions should be processed through BLR&S. The district geometrics engineer may be requested to review the intersection design studies. The district BLR&S will approve the construction plans.

#### **12-5.06(c) Combined Systems**

For projects that have substantial work on both highway systems, use the following procedures:

1. State-Only Funds. For projects being developed with State-only funds, process the Project Reports through BDE when Central Office design approval is required.
2. Federal Funds. For projects using Federal funds and where the district or their consultants prepare reports, process the Project Report through BDE. BDE will coordinate any design requirements with BLR&S. Where local agencies and their consultants prepare reports, process the Project Report through BLR&S. BLR&S will coordinate any design requirements with BDE.

#### **12-5.06(d) Modified Procedures**

Where special or unusual situations arise during project development, modified review and processing procedures may be necessary. In these cases, the district, BLR&S, and BDE should agree on the modified procedures to use.

#### **12-5.07 Project Reports for the Highway Safety Program**

The Highway Safety Program is intended to make moderate cost improvements, addressing specific site-related crashes, and eliminating over-represented crash patterns. These projects will typically require an Abbreviated Project Report or may be exempt from the preparation of a report; see Section 12-3.10.

In many cases, the improvements may be short-term until major reconstruction can be undertaken. Any additional work not directly related to the specific crash problem is not eligible for Highway Safety Program funding, unless it can be justified as being appropriate or necessary due to its relationship with the basic crash history.

In addition to the guidelines in Section 12-3.07, Project Reports for safety improvements will include the Regional Engineer's concurrence of the project in the Highway Safety Program. Project Reports should include the following information:

- project priority numbers for the annual District Highway Safety Program;

- project locations showing county, route, and limits of construction;
- descriptions of work as determined by the District Highway Safety Program Team;
- estimated costs and benefit/cost ratios; and
- district Highway Safety Team member titles, their bureaus, and signatures together with the Regional Engineer's concurrence.

Document the selection of a project for the Safety Program on the Program Sheet, see Figure 12-5.B, and include it with the Project Report with the PS&E submittal.

When any significant revisions to the scope of work, estimated cost, or benefit/cost ratio are proposed for the annual District Highway Safety Program, the Safety Team members and the Regional Engineer must sign and submit a Safety Program Revision sheet. Also, include this sheet in the Project Report or with the PS&E submittal. Figure 12-5.C illustrates the suggested format for a Highway Safety Program Revision Sheet. This information is required for BDE project monitoring activities and provides for Statewide Safety Program and Project Criteria Monitoring, which is a requisite to design approval.

Design approval procedures and the preparation of a Project Report for safety projects are not waived by Departmental Policy TRA-15 and approval procedures and the preparation of a Project Report for safety projects; approval procedures will continue to be in accordance with Section 12-5.05 or Section 12-3.10.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT HIGHWAY SAFETY PROGRAM SHEET**

District 10                      Fiscal Year (FY) 96                      FY Allocation \$900,000

<u>PRIORITY NUMBER</u>	<u>COUNTY, ROUTE, TERMINI</u>	<u>SCOPE OF WORK</u>	<u>ESTIMATED COST &amp; B/C RATIO</u>
1	Sauk Co., US 12, North Street to Freedom Street in Baraboo	High-Friction Resurfacing & Traffic Signal Modernization, 0.3 mi (0.48 km)	\$222,000 B/C = 2.8
2, 3, etc.	-----	-----	-----

TOTAL COST OF FY SAFETY IMPROVEMENTS \_\_\_\_\_

\_\_\_\_\_  
District Traffic Safety Team Member                      Date

\_\_\_\_\_  
District Maintenance Safety Team Member                      Date

\_\_\_\_\_  
District Planning Safety Team Member                      Date

\_\_\_\_\_  
District Design Safety Team Member                      Date

Approved: \_\_\_\_\_  
Regional Engineer                      Date

**EXAMPLE HE PROGRAM SHEET**

**Figure 12-5.B**

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT HIGHWAY SAFETY PROGRAM  
REVISION \* SHEET**

District 10

Fiscal Year (FY) 96

<u>PRIORITY NUMBER</u>	<u>COUNTY, ROUTE, TERMINI</u>	<u>SCOPE OF WORK</u>	<u>ESTIMATED COST &amp; B/C RATIO</u>
1	Sauk Co., US 12, North Street to *Lake Street in Baraboo	High-Friction Resurfacing & Traffic Signal Modernization, * 0.3 mi (0.48 km)	\$275,000 * B/C = 2.3

District Traffic Safety Team Member	Date
District Maintenance Safety Team Member	Date
District Planning Safety Team Member	Date
District Design Safety Team Member	Date
Approved: <span style="border-top: 1px solid black; padding-top: 5px;">Regional Engineer</span>	Date

**EXAMPLE HE PROGRAM REVISION SHEET**

**Figure 12-5.C**



## 12-6 CORRIDOR PROTECTION

### 12-6.01 Need

Section 4-510 of the *Illinois Highway Code* (605 ILCS 5/4-510) provides a means of protecting the right-of-way of “future additions” to State highways from future developments. This statute would apply to either new construction on new location or to additions or widening of the existing highway system under the reconstruction category.

Prior to initiating a corridor preservation project, the proposed improvement must be analyzed to determine the potential for development on future right-of-way needs. A proposed highway located in or near a rapidly developing urban area might require corridor protection soon after design approval is received, whereas a proposed highway in a rural area might have little likelihood of immediate development.

Not more than ten years after a protected corridor is established, and not later than the expiration of each succeeding ten year period, the Department shall hold public hearings to discuss the viability and feasibility of the protected corridor. The Department shall retain the discretion to maintain any protected corridor but shall give due consideration to the information obtained at the public hearing. If the Department in its discretion determines that the construction of the roadway is no longer feasible, the Department shall abolish the protected corridor.

### 12-6.02 Procedures

The Land Acquisition *Policies and Procedures Manual* describes the procedures and exhibits needed to file a Corridor Protection Map.



## 12-7 ROUTE LOCATION DECISIONS

### 12-7.01 Purpose

A Route Location Decision is a legal declaration made by the Illinois Department of Transportation, establishing the location of a proposed State highway or revising the location of an existing State route, as required by Chapter 605 ILCS 5/4-204 of the *Illinois Highway Code*.

### 12-7.02 Applicability

Prepare a Route Location Decision where the following occurs on a State highway:

- a route will be developed on a new location;
- there is a change in the termini of an existing route;
- a portion of an existing route will be relocated for a length of 1 mile (1.6 km) or more;
- a portion of an existing route will be relocated a lateral distance of 0.5 miles (0.80 km) or more from the former location;
- a loop or spur will be added to an existing route;
- an existing route will be relocated due to the expansion of airport facilities; and/or
- in conjunction with an Order Establishing a Freeway, the freeway or expressway will be developed on a new location. Where a portion of an existing route will be declared a freeway, a Route Location Decision is not required.

### 12-7.03 Content

The Route Location Decision consists of a detailed legal description referenced to section corners, townships, ranges, and a map upon which the selected route location is shown.

Approximate scale values may be used in the description where field survey data is not available. A county map having a scale 1 in = 1 mile (1:60,000 metric) typically is used to show the route location.

A sample Route Location Decision is shown in Figure 12-7.A.

### 12-7.04 Preparation and Processing

Subsequent to the review of comments received at a public hearing or informational meeting and the disposition of comments, and after design approval of the location is given by BDE, prepare a Route Location Decision and forward it, in duplicate, to BDE. The Preliminary Engineering Section will review the location decision for form and content and will process it for execution.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

## ROUTE LOCATION DECISION

Along Federal-aid Route 155 from Henry Street in Alton, one block east of the Clark Bridge, in a generally southeasterly direction to a point near the intersection with FA Route 4 near Wood River in Madison County.

WHEREAS, the Department of Transportation of the State of Illinois has proceeded to select, lay out, and survey a part of Federal-aid Route 155 along a line as shown on the map attached hereto and made a part hereof, and on a location more particularly described as follows:

Commencing from a stone set at the northwest corner of Front Street and Henry Street, as said streets are now laid out on the plats of the City of Alton, thence South 84 degrees 19 minutes East along an easterly prolongation of the north line of Front Street for a distance of 99.00 feet (30.175 meters) to a point in the east line of Henry Street; thence South 6 degrees 12 minutes West along the east line of Henry Street for a distance of 864.60 feet (263.530 meters) to a point, said point being the POINT OF BEGINNING; thence South 80 degrees 48 minutes East along the centerline of FA Route 155 for a distance of 585.73 feet (178.531 meters) to a point of curve, ...

*(continuation of detailed legal description referenced to section corners, townships, and ranges)*

... for a distance of 266.82 feet (81.327 meters) to an intersection with the centerline of FA Route 4 (Business US 67); said point of intersection being the END OF ROUTE LOCATION DECISION; and being approximately 1000 feet (305 meters) South 68 degrees 17 minutes West from the east Line of NW 1/4 of Section 28, T5N, R9W of Third Principal Meridian, Madison County.

WHEREAS, the location of Federal-aid Route 155 within the above limits having been fully examined and observed and the width of right-of-way needed for developing and improving said route having been considered and determined; and

WHEREAS, it is required that a detailed description of the location of that part of Federal-aid Route 155 described above, and the width of right-of-way needed for development and improvement be entered of record in the Department of Transportation of the State of Illinois;

IT IS THEREFORE ORDERED, that that part of Federal-aid Route 155 extending from a point on Henry Street in Alton, one block east of the Clark Bridge, in a generally southeasterly direction to a point near the intersection with FA Route 4 near Wood River in Madison County be and is hereby located as described herein, and that the said location as described be and is hereby selected as the location of part of Federal-aid Route 155 and also, that there shall be acquired for this part of Federal-aid Route 155 a general right-of-way width of 200 feet (60.960 meters), except that such additional widths may be acquired as may be required for backslopes in cuts, downslopes in fills, frontage roads to serve built-up areas, and additional areas as may be required at intersecting streets or highways for providing traffic flow, safe-sight distances, and control of access to Federal-aid Route 155.

**SAMPLE ROUTE LOCATION DECISION****Figure 12-7.A**

IT IS FURTHER ORDERED that this map and order be filed as a part of the records of the Department of Transportation of the State of Illinois.

ENTERED THIS \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
Secretary of Transportation

**SAMPLE ROUTE LOCATION DECISION**

**Figure 12-7A**  
(Continued)

**12-7.05 Execution**

Upon execution of the Route Location Decision by the appropriate Department officials, an original copy of the document is returned to the district for recording in the Office of the County Clerk of each county in which the highway is located. Once the recording is complete, the Route Location Decision is returned to BDE for filing.

## 12-8 ORDER ESTABLISHING A FREEWAY

### 12-8.01 Freeways and Expressways

1. New Locations. According to Chapter 605 ILCS 5/8-101 of the *Illinois Highway Code*, once it has been decided to control access on a State route, it is necessary to designate and establish the facility as an access-controlled highway. This action is initiated after design approval is obtained for the freeway/expressway. The Order Establishing a Freeway (Order) is a legal declaration made by the Department designating a highway as an access-controlled facility and delineating the extent of the freeway/expressway.
2. Revisions to Existing Orders. This situation is identical to “new locations” except that an existing Freeway Order is revised to describe a change in the originally approved access control limits; see Section 37-1.03 and Chapter 35.

### 12-8.02 Procedures

The Order must include the access limits along the mainline and the specific limits on all crossroads kept open to traffic. The Order contains a legal description of the freeway/expressway referenced to section corners, townships, and ranges. The Order is approved and signed by the Illinois Secretary of Transportation. An original copy of the fully executed Order is returned to the district for recording in the Office of the County Clerk of each county in which the freeway/expressway is located. Once the recording is completed, the Order is returned to BDE for filing. Figure 12-8.A illustrates a sample Order.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

ORDER ESTABLISHING A FREEWAY

Along Federal-aid Route 155 from Henry Street in Alton, one block east of the Clark Bridge, in a generally southeasterly direction to a point near the intersection with FA Route 4 near Wood River in Madison County.

The Department of Transportation of the State of Illinois acting under authority conferred on it by "An Act authorizing the Department of Transportation, the County Board of any County, or the corporate authorities of any City, Village, or Incorporated Town to designate and establish existing and proposed highways under their respective jurisdiction and control as freeways, and to limit access thereto" designated as Chapter 605 ILCS 5/8-101, as amended, and the Department being of the opinion that the safety and convenience of highway traffic will be promoted and the public interest subserved thereby, does hereby designate and establish a FREEWAY along the general location of those portions of Federal-aid Route 155 described below, and does declare its intention of proceeding to improvement and develop said portions of Federal-aid Route 155 in a manner which will permit access between said FREEWAY and abutting lands only at entrances provided for that purpose, in accordance with the provisions of said Act:

Commencing from a stone set at the northwest corner of Front Street and Henry Street, as said streets are now laid out on the plats of the City of Alton, thence South 84 degrees 19 minutes East along an easterly prolongation of the north line of Front Street for a distance of 99.00 feet (30.175 meters) to a point in the east line of Henry Street; thence South 6 degrees 12 minutes West along the east line of Henry Street for a distance of 864.60 feet (263.530 meters) to a point, said point being the POINT OF BEGINNING; thence South 80 degrees 48 minutes East along the centerline of FA Route 155 for a distance of 585.73 feet (178.531 meters) to a point of curve, thence along a curve to the right, having a radius of 2864.79 feet (873.188 meters), for a distance of 1879.17 feet (572.771 meters) to a point of tangency; thence South 43 degrees 13 minutes East for a distance of 589.97 feet (179.823 meters) to a point of curve; thence along a curve to the left, having a radius of 3819.72 feet (1164.251 meters), for a distance of 1433.33 feet (436.879 meters) to a point of tangency; thence South 64 degrees 43 minutes East for a distance of 259.62 feet (79.132 meters) to a point of curve; thence along a curve to the right, having a radius of 5729.58 feet (1746.376 meters), for a distance of 2206.67 feet (672.593 meters) to a point of tangency; thence South 42 degrees 39 minutes East for a distance of 1241.69 feet (378.467 meters) to a point of curve; thence along a curve to the left, having a radius of 2864.79 feet (873.188 meters), for a distance of 970.00 feet (295.656 meters) to a point of tangency; thence South 62 degrees 3 minutes East for a distance of 2529.42 feet (770.967 meters) to a point on the westerly edge of east-half of Fractional Section 19, T5N, R9W, 3rd PM; said point being South 0 degrees 51 minutes East a distance of 498.40 feet (151.912 meters) from the center of said Section 19, thence South 62 degrees 3 minutes East for a distance of 791.51 feet (241.252 meters) to a point of curve; thence along a curve to the right, having a radius of 3819.72 feet (1164.251 meters), for a distance of 1631.11 feet (497.162 meters) to a point of tangency; thence South 37 degrees 35 minutes East for a distance of 319.90 feet (97.506 meters) to a point of curve; thence along a curve to the left, having a radius of 2864.79 feet (873.188

**SAMPLE ORDER ESTABLISHING A FREEWAY/EXPRESSWAY**

**Figure 12-8.A**

meters), for a distance of 1718.34 feet (523.750 meters), to a point of tangency; thence South 71 degrees 57 minutes East for a distance of 1111.06 feet (338.651 meters) to a point of curve; thence along a curve to the right, having a radius of 7473.04 feet (2277.783 meters), (for a distance of 1021.69 feet (311.411 meters) to a point of tangency; thence South 64 degrees 7 minutes East for a distance of 1256.64 feet (383.024 meters) to a point of curve; thence along a curve to the left, having a radius of 3819.72 feet (1164.251 meters), for a distance of 3173.33 feet (967.231 meters) to a point of tangency, thence North 68 degrees 17 minutes East for a distance of 266.82 feet (81.327 meters) to an intersection with the centerline of FA Route 4 (Business US 67); thence continuing North 68 degrees 17 minutes East along the centerline of SBI Route 3, being also the centerline of Ferguson Avenue, for a distance of 598.70 feet (182.483 meters) to a point, said point being approximately 40 feet (122 meters) South 68 degrees 17 minutes West from the east line of the NW 1/4 of Section 28, T5N, R9W of the Third Principal Meridan, Madison County, and the END OF THIS FREEWAY ORDER.

Notice is hereby given that, in accordance with the provisions of the Act referred to above, no owner of or persons having an interest in land abutting those portions of Federal-aid Route 155 hereby designated and established as a FREEWAY shall lay out, provide, or construct any new means or enlarge or extend any existing means of ingress to or egress from said abutting land from or to such FREEWAY except upon written consent of the Department of Transportation.

Notice is further given that, in accordance with the provisions of the Act referred to above, no new highway, road, street, alley, or other public way shall be opened into or connected with or be carried over or under those portions of Federal-aid Route 155 hereby designated and established as a FREEWAY except upon written consent of the Department of Transportation.

By Order of  
The Department of Transportation

\_\_\_\_\_  
Secretary of Transportation

\_\_\_\_\_  
Date

**SAMPLE ORDER ESTABLISHING A FREEWAY/EXPRESSWAY**

**Figure 12-8.A**  
(Continued)

