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Intended Use of Manual for INDOT and Local Projects

This manual has been written to set expectations for waterway permitting deliverables and review paths for projects developed by the Indiana Department of Transportation (INDOT). Other projects may also benefit from the guidance in this manual. Specifically, preparers of permits for local projects that receive federal funds and which follow INDOT standard specifications are encouraged to use this manual; however, INDOT does not review permits or other related deliverables for local projects.



INTRODUCTION TO COAST GUARD BRIDGE PERMITTING

A. Who Must Apply for a Bridge Permit

1. Any individual, partnership, corporation, or local, state, or federal legislative body, agency, or authority planning to construct or modify a bridge or causeway across a navigable waterway of the United States must apply for a Coast Guard bridge permit. This includes all temporary bridges used for construction access or traffic detour.
2. For bridges constructed by the state or municipal agencies, primary authority to apply for a permit for the construction of a bridge project will be presumed without proof.
3. If state law does not require a license, primary authority may be granted in the charter of a corporation or the authority inherent in ownership of the land where the structure will be placed. In these cases, an extract from the charter and evidence of sufficient real estate interest to allow construction of the bridge should be submitted with the application. In such cases where the Coast Guard doubts the applicant's ability to construct and utilize the bridge, particularly for a private bridge owner, proof of property rights must be furnished to the Coast Guard as part of the application.
4. Failure to obtain a bridge permit before commencing bridge construction or modification work is a federal offense, punishable by civil and criminal penalties.

B. Bridge Permit Application Guide

1. The Bridge Permit Application Guide assists the applicant in applying for a Coast Guard bridge permit to:
 - a. Construct a new bridge or causeway, or
 - b. Reconstruct or modify an existing bridge or causeway across navigable waters of the United States.
2. The Bridge Permit Application Guide is located on the Bridge Program website: <http://www.uscg.mil/hq/cg5/cg551/>.

C. How the Coast Guard Can Help

1. The local Coast Guard District Bridge Office is one of the best sources of information for the project. The applicant should direct all project-related questions, concerns, comments, and requests to the bridge program staff in the Coast Guard District Bridge Office where the project is located.
2. A map of the district boundaries is located at the end of this document so the applicant may locate the Coast Guard District Bridge Office in the project area.
3. A list of the mailing addresses and telephone numbers of the Coast Guard District Bridge Offices is located on the Bridge Program website: <http://www.uscg.mil/hq/cg5/g551/>. The responsibility for processing all bridge permit applications is at the District Commander organizational level.
4. A glossary is also located on the Bridge Program website: <http://www.uscg.mil/hq/cg5/g551/>, providing explanations to many key terms involved in obtaining a Coast Guard bridge permit.

D. Requirements and Laws A bridge permit is the written approval of the location and plans of the bridge or causeway to be constructed or modified. Federal law prohibits the construction of these structures unless the Coast Guard first authorizes them.

E. Coast Guard Bridge Permitting Authority

1. In 1967, the Coast Guard was transferred to the Department of Transportation. One of the Coast Guard's newly assigned duties was to issue bridge permits.
2. In 2002, the Coast Guard preserved its assigned duties under the Homeland Security Act of 2002 when transferred from the Department of Transportation to the Department of Homeland Security.
3. The Secretary of Homeland Security delegated this authority to the Commandant, U. S. Coast Guard, on 28 February 2003, by Department of Homeland Security Delegation Number: 0170.1.

4. The Coast Guard approves bridge location and plans under the authority of several Acts pertaining to bridges.

F. Legislation Pertaining to Bridges

1. These Acts include Section 9 of the Rivers and Harbors Act of 1899 and the General Bridge Act of 1946.
 - a. The purpose of these Acts is to preserve the public right of navigation and to prevent interference with interstate and foreign commerce. The General Bridge Act of 1946, as amended, the Rivers and Harbors Act of 1899, as amended, and the Act of March 23, 1906, as amended, all require the location and plans of bridges and causeways across the navigable waters of the United States be submitted to and approved by the Secretary of Homeland Security prior to construction. The General Bridge Act of 1946 is cited as the legislative authority for bridge construction in most cases.
 - b. These Acts placed the navigable waters of the United States under the exclusive control of the U. S. Coast Guard to prevent any interference with their navigability by bridges or other obstructions except by express permission of the United States Government.

G. Bridge Program Policy

1. Under the previously mentioned Acts, the Coast Guard's mission is to administer the Bridge Program. The Coast Guard approves the location and plans of bridges and causeways and imposes any necessary conditions relating to the construction, maintenance, and operation of these bridges in the interest of public navigation.
2. The Coast Guard is also required by law to ensure environmental considerations are given careful attention and importance in each bridge permitting decision.
3. As explained further in Section C of the Bridge Permit Application Guide, relevant environmental statutes and executive orders for bridge project compliance include those listed in the Bridge Permit Application Guide.
4. The Coast Guard is obligated to consult with and obtain comments from any federal agency with legal jurisdiction or special expertise concerning any environmental or navigational impact involved. Such comments are generally obtained through direct coordination with affected agencies, responses to the public notice, and the Local Notice to Mariners (LNM).
5. The Coast Guard Bridge Program protects the freedom of navigation and the quality of the environment by taking a balanced approach to total transportation systems, both land and water modes, in all program actions.
6. The bridge statutes and subsequent court interpretations require bridges provide for the reasonable needs of navigation, not for all the needs of navigation. The reasonable needs of land traffic must also be met.
7. Therefore, Coast Guard bridge permit actions consider the overall goals of the U.S. Department of Homeland Security in a balanced manner to accommodate the needs of all modes of transportation.
8. Rules and regulations governing the U. S. Coast Guard bridge permit program are listed in Parts 114 and 115 of Title 33, Code of Federal Regulations (CFR). A copy may be found in most local libraries, online at the U.S. Government Printing Office website or purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20401.

H. Navigable Waters

1. Navigable waters for Coast Guard bridge permitting purposes are defined by 33 CFR § 2.36, unless specifically declared otherwise by Congress, to include:
 - a. Territorial seas of the United States;
 - b. Internal waters of the United States subject to tidal influence; and
 - c. Internal waters of the United States not subject to tidal influence that:
 - 1) Are or have been used, or are or have been susceptible for use, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce, notwithstanding natural or man-made obstructions that require portage, or
 - 2) A governmental or non-governmental body, having expertise in waterway improvement, determines to be capable of improvement at a reasonable cost (a favorable balance between cost and need) to provide, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce.

2. If the applicant is uncertain whether or not a waterway is susceptible to improvement for navigation, is tidal, or is considered navigable, contact the Coast Guard to obtain information regarding a navigability determination.
3. The classification of certain waterways or portions of waterways as navigable occasionally changes, changing the information required for applicants.
4. For these reasons, if an applicant is planning to construct a new bridge or causeway or modify an existing bridge or causeway over a canal, channel, stream, river, lake, bay, or other body of water or waterway, they should contact the local Coast Guard District Bridge Office before submitting a formal permit application.
5. Additionally, due to the different characteristics of the waterways and navigation in each District, needed information varies from one District to another. An applicant should contact the local District Office for applicability of requirements listed in the Bridge Permit Application Guide.

I. Temporary Bridges

1. Any proposed temporary bridge requires a bridge permit prior to construction. Follow the same procedures and information requirements as for a permanent bridge.
2. A temporary bridge is often used during the construction of a permanent bridge. A request for the approval of this type of temporary bridge should be included in the application for the permanent bridge.

J. Time Limits for Construction

1. Based on the estimate given in the application, a reasonable period of time will be allowed for the construction of the bridge project covered by the permit.
2. Coast Guard bridge permits specify that the permit becomes null and void unless construction of the bridge is commenced and completed by certain dates. This time period is usually three years and five years, respectively, from the date of the permit.
3. Longer construction times can be requested and substantiated with good reasons. The specified time should correspond to the actual time needed to complete construction, since a time extension may not be routinely granted.
4. If the authorized work is not completed within the time specified in the permit, the permit is null and void. A new application and approval are required before construction work can continue.
5. However, if a written request for a time extension is submitted at least 30 days before the expiration date of the permit, the existing permit will remain in effect during processing. Work may continue until the final agency action is taken on the time extension request.

K. Bridge Protective Systems

1. When considering an application for a bridge permit, the Coast Guard may require a bridge protective system to provide navigation safety.
2. In the permit application, the applicant must consider the possible need for a bridge protective system that would promote safer navigation through the bridge.
3. The need for a bridge protective system is based on present and future navigation transiting the proposed bridge site.
4. When required, the applicant must submit a plan for a bridge protective system that includes the following information:
 - a. A description of the proposed type of bridge protective system (include a description of the construction methods and materials from the standpoint of navigation safety).
 - b. The dimensions and minimum clear horizontal distance normal to the channel axis measured between the most restrictive parts of the bridge protective system.
5. When changes in navigation affect the safety of navigation and the bridge structure, the Coast Guard District Commander may require the installation of bridge protective systems at the bridge owner's expense.
6. A Vessel Impact Assessment shall be completed to determine the type of bridge protective system required for the bridge, if applicable.

L. Clearance Gauges

1. When necessary for reasons of safety of navigation, the District Commander may require or authorize the installation of clearance gauges in accordance with 33 CFR § 118.160. Early coordination and consultation with the cognizant Coast Guard District Bridge Office is necessary for making this determination.
2. Under special or peculiar circumstances, or conditions which make compliance with these standards impractical, the bridge owner may apply in writing to the District Commander for permission to deviate from these standards or obtain a waiver of the requirement for clearance gauges. In some instances, the District Commander may authorize use of electronic measuring devices as replacement for the fixed gauges.

M. Approval of Falsework and Construction Procedures

1. Clearances provided for navigation through or under the bridge spans associated with falsework and construction activities must be approved by the Coast Guard. This is not a separate permit action by the Coast Guard but applicants should consult with the local Corps of Engineers Regulatory office for matters under the jurisdiction of the Corps. The Coast Guard will review, coordinate and approve the proposed temporary navigational clearance restrictions through or under a bridge by use of falsework, pilings, floating equipment, closure of draws, or any work or activities which temporarily reduce the navigational clearances and design flood flows, including obstruction of any or all spans of the bridge. Early coordination with the Coast Guard District Bridge Office is required for proposed construction/demolition plans.
2. A Coast Guard bridge permit normally includes a condition stating the plans for cofferdams, falsework, or any other temporary structures to be placed in the water to facilitate the bridge construction, must be submitted to and approved by the District Commander before the start of construction.
3. Approval of a temporary reduction of previously approved navigational clearances for any of these temporary structures varies greatly. Approval depends on the location of the bridge, type of river traffic, the time of year the structures will be in place, etc.
4. For these reasons, the applicant must specify the minimum navigational clearances required during the construction of a bridge in any construction contract.
5. The applicant may obtain this information by writing to the appropriate Coast Guard District Commander.
6. Requests for approval of the proposed plans for temporary structures and erection schemes shall be made in writing to the Coast Guard District Commander early enough to allow proper review, coordination and approval. This request must include the proposed plans, including drawings on 8 ½ x 11 paper, tentative work scheduled for the temporary structures and any other temporary hazards to navigation, such as a moored floating plant.
7. Plans for cofferdams, falsework bents, brackets, temporary dolphins, survey towers, test piles, work dikes, etc., should be submitted to the Coast Guard District Commander for his approval prior to commencement of construction. Use of these types of items may require review and permitting by the Corps of Engineers under the provisions of Section 10 of the River & Harbor Act of 1899 and/or Section 404 of the Clean Water Act.

N. Pre-Construction Conferences Coast Guard District Bridge Office personnel shall be invited to attend any pre-bid and pre-construction meetings for a bridge permitted by the Coast Guard. The Coast Guard appreciates the opportunity to explain procedures and answer any questions concerning our requirements. Invitations for Coast Guard personnel to attend pre-bid/pre-construction meetings should be made by contacting the Coast Guard District Bridge Office.

O. Maintenance

1. Bridges constructed under a Coast Guard permit must be maintained in accordance with the applicable Bridge Act, permit conditions and approved plans. No further authorization is required for routine maintenance. The Coast Guard District must be provided advance notification regarding any maintenance that will affect navigation to allow timely review, coordination with waterway users and approval prior to deviating from the approved plans or operation of the bridge.
2. Repairs to a bridge which do not alter the clearances, type of structure, or any integral part of the substructure or superstructure or navigation conditions, but which consist only in the replacement of worn or obsolete parts, may, if the bridge is a legally approved structure, be made as routine maintenance without approval of the U.S. Coast Guard.

P. Transfer of Permits

1. Although a permit is issued to a specific party, the approval granted for a bridge permit is not restricted to construction, operation, or maintenance of the bridge by that party.
2. The permit passes with the title when it is transferred to an assignee or purchaser of the bridge. The new owner or assignee must strictly comply with the terms and conditions of the permit.

Q. Bridge Navigational Lighting

1. Bridges across waterways, which support nighttime navigation, are required to display navigational lights in accordance with Part 118 of Title 33, CFR.
2. Approval of navigational lights and other required signals must be obtained, prior to construction, from the Coast Guard District Commander (Bridge Office) with jurisdiction over the bridge project area.
3. The permittee is responsible for maintaining proper temporary navigational lighting and other such markings, as prescribed, on bridges during construction. Permanent lighting must be maintained on the bridges after the completion of construction.
4. The District Commander may exempt bridges over waterways with no significant nighttime navigation from the lighting or other signal requirements.
5. For the best service and ease of maintenance, lighting installations should incorporate the recommended features outlined below in accordance with 33 CFR Part 118.
6. If the applicant considers bridge lighting during the bridge design phase, it can help avoid future difficulties.
7. Since the bridge lighting requirements in 33 CFR Part 118 are specified as performance standards, the applicant should ensure the lighting equipment proposed for a specific bridge project meets these standards by contacting the local Coast Guard District Bridge Office.
8. Any person required by 33 CFR Part 118 to maintain lights and other signals upon any bridge or abutment over or in the navigable waters of the United States who fails or refuses to maintain such lights and other signals, or to obey any of the lawful rules and regulations relating to the same is subject to a penalty as provided in 14 United States Code (U.S.C.) 85.
9. No person shall obstruct or interfere with any lights or signals maintained in accordance with the regulations prescribed in this part. Any person violating the provisions of 33 CFR § 118.10 shall be deemed guilty of a misdemeanor and be subject to a fine for each offense. Each day during which such violation shall continue shall be considered a new offense.
10. Additional information can be found in the Coast Guard Bridge Lighting and Other Signals guide found at <http://www.uscg.mil/hq/cg5/cg551/>.

R. Navigation Evaluation

1. Section 2.A.2.g.17.a) of the Bridge Permit Application Guide requires an applicant for a Coast Guard bridge permit to prepare a navigation evaluation. This evaluation shall be conducted to identify and evaluate current and future navigational needs with regards to the sufficiency of proposed horizontal and vertical clearances provided by a bridge project. Items which should be taken into consideration for this evaluation include, but are not limited to:
 - a. Review of all bridges upstream and downstream of the proposed bridge site to determining existing minimum horizontal and vertical clearances;
 - b. Review of guide clearances for the waterway;
 - c. Waterway layout and geometry;
 - d. Waterway depth and fluctuations;
 - e. Current speed and direction;
 - f. Type and size of vessels utilizing the waterway to include:
 - 1) Vessel Name
 - 2) Vessel length overall
 - 3) Vessel beam
 - 4) Vessel draft
 - 5) Vessel air draft
 - g. Vessel transit frequencies, transit speeds and load configurations;
 - h. Vessel traffic characteristics;
 - i. Review of annual cargo movements (cargo types and quantities);
 - j. Site-specific information such as historical data on vessel allisions/collisions, rammings and groundings in the waterway, bridge/waterway geometry, sailing path, stream speed, and wind speed;
 - k. All vessels and cargoes that will need to be partially disassembled/dismantled in order to transit the proposed bridge and whether the vessels currently possess that capability;
 - l. Proposed bridge clearance impact on present and prospective upstream commercial activity, e.g. jobs, and economic growth and development. Address any existing or planned commercial/industrial

developments negatively affected by the proposed clearances and discuss the economic impacts the proposed clearances will have on these businesses; and

- m. Any existing facilities on the waterway that are or could be considered critical infrastructure, key resources, or important/unique US industrial capability i.e. are these facilities unique or one of only a few of the type in the area. Address whether the proposed clearances negatively impact those facilities and their customers.
2. Additional guidance on determining the reasonable needs of navigation can be found on the Coast Guard Office of Bridge Programs website:
[http://www.uscg.mil/hq/cg5/cg551/Navigational%20Clearance%20Methodology%20White%20Paper%2010%20Oct%2012\(website%20version\).pdf](http://www.uscg.mil/hq/cg5/cg551/Navigational%20Clearance%20Methodology%20White%20Paper%2010%20Oct%2012(website%20version).pdf)

Please contact your local Coast Guard District Bridge Office should you have any additional questions regarding navigation evaluations.

S. District Commander's Investigation

1. All bridge related work including new construction, replacement, alteration, demolition, etc are considered to be "proposed" until permitted or approved by the appropriate Coast Guard office.
2. Upon submission of a bridge permit application, a request for a bridge permit is investigated by the Coast Guard District bridge program staff to ensure:
 - a. The proposed bridge is under Coast Guard jurisdiction (i.e., across navigable waters of the United States).
 - b. The application includes all of the necessary information, including one set of reproducible plans on 8 ½ x 11 inch format, and adequate environmental and other supporting documentation. (As part of an initial review, a preliminary decision is made to determine the required type of environmental document.)
 - c. The proposed bridge provides for the reasonable needs of navigation.
3. The Coast Guard District Commander undertakes a rigorous independent investigation to determine the possible impacts of the proposed project on navigation and the human environment.
4. As part of the District Commander's independent investigation, scoping/coordination meetings and consultation may be required to determine the level of environmental documentation (See Section 2.A. of the Bridge Permit Application Guide). In addition, a notice requesting public comment is issued to all known interested individuals, adjacent property owners, expertise groups, and government agencies.
5. The Coast Guard District bridge program staff receives, evaluates, and acts upon the responses to the public notice. The applicant will be furnished any substantive comments received in response to the public notice to resolve or dispute the issues that are raised. Normally, the public comment period is 30 days.
6. Public meetings shall be held when determined necessary by the Coast Guard, due to substantial issues concerning the proposed bridge's effect on the reasonable needs of navigation.
7. Public meetings may also be held, when appropriate, in accordance with the statutory requirements of the National Environmental Policy Act of 1969 (NEPA).
8. The purpose of a public meeting is to allow interested parties to express their views and develop pertinent data for evaluating the permit application.
9. Following the Coast Guard District Commander's investigation, the request for the permit is forwarded to Coast Guard Headquarters with the case record and the District Commander's recommendation for issuance or denial of the permit.
10. In certain cases, the District Commander may issue or deny the permit.

T. Headquarters Review

1. When a Coast Guard Headquarters final agency action is required, the staff of the Permits Division, Bridge Program Office, U. S. Coast Guard Headquarters in Washington, DC, reviews and evaluates the case file submitted by the District Commander.
2. Based on this evaluation, the District Commander's recommendation may be accepted or rejected, and a bridge permit may be issued or denied.

BRIDGE PERMIT APPLICATION GUIDE

OFFICE OF BRIDGE PROGRAMS, U.S. COAST GUARD

Bridge Permit Application Guide

U.S. Department of
Homeland Security

United States
Coast Guard



COMDTPUB P16591.3C
OCTOBER 2011

Promulgation Letter



Commandant
United States Coast Guard

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Subj: BRIDGE PERMIT APPLICATION GUIDE

1. **PURPOSE.** This manual has been prepared to assist Federal, State and local agencies, as well as members of the general public, when applying for a Coast Guard permit to construct a new bridge or causeway or reconstruct or modify an existing bridge or causeway across the navigable waters of the United States.
2. **ACTION.** All Coast Guard unit commanders, commanding officers, officers-in-charge, deputy/assistant commandants, and chiefs of headquarters staff elements shall comply with the provisions of this manual. Internet release is authorized.
3. **DIRECTIVES AFFECTED.** This Publication supersedes the previous Bridge Permit Application Guide, COMDTPUB P15691.3B.
4. **DISCUSSION.** Federal law prohibits the construction of any bridge across the navigable waters of the United States unless first authorized by the Coast Guard. This manual shall be provided to State or local agencies who routinely apply for bridge permits and to other prospective applicants when requested through the Internet. If the procedures described in this manual are followed, it will expedite the permitting process. Questions regarding a specific project should be directed to the Bridge Program staff of the Coast Guard district where the project is located.
5. **SUMMARY OF CHANGES.**
 - a. There have been many minor changes incorporated into this edition of the Bridge Permit Application Guide. A significant portion of the introductory/background information has been removed and will now be available solely on the Commandant (CG-551) website (<http://www.uscg.mil/hq/cg5/cg551/>). A significant change is the previous guide section which identified the information required for a letter of application, including a sample

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letter, was deemed repetitive. The sample letter has been removed and the section on the application package requirements has been updated. Also moved to the Commandant (CG-551) website is the glossary, lighting guide and guide clearance information, along with the district map and contact info.

- b. The document attached herein provides all the necessary information for an applicant to apply for a Coast Guard bridge permit. The guide is now broken down into two sections, the Introduction and the Permit Application. The permit application section is further broken down into three subsections: The Application Package, Plan Sheet Requirements and Environmental Document Requirements. Overall the Guide provides policy guidance and clarification on program implementing procedures and numerous editorial and format changes.
6. RECORDS MANAGEMENT CONSIDERATIONS. This Manual has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not have any significant or substantial change to existing records management requirements.
 7. ENVIRONMENTAL ASPECTS AND IMPACT CONSIDERATION.
 - a. The development of this directive and the general policies contained within it have been thoroughly reviewed by the originating office and are categorically excluded (CE) under current USCG CE #33 from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series).
 - b. This directive will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this Manual must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), Council on Environmental Policy NEPA regulations at 40 CFR Parts 1500-1508, DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.
 8. FORMS/REPORTS. None.

D.A. Goward /s/
Director, Marine Transportation
Systems Management

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SECTION 1 INTRODUCTION TO THE PERMITTING PROCESS

The Coast Guard approves the location and plans of bridges and causeways and imposes any necessary conditions relating to the construction, maintenance, and operation of these bridges in the interest of public navigation. A bridge permit is the written approval of the location and plans of the bridge or causeway to be constructed or modified across a navigable waterway of the United States. Any individual, partnership, corporation, or local, state, or federal legislative body, agency, or authority planning to construct or modify a bridge or causeway across a navigable waterway of the U.S. must apply for a Coast Guard bridge permit in accordance with 33 CFR 115.50.

Additional information regarding Coast Guard permitting can be found online at <http://www.uscg.mil/hq/cg5/cg551/default.asp>. Federal law prohibits the construction of these structures unless the Coast Guard first authorizes them. By following the procedures in this publication the Coast Guard can efficiently process a bridge permit application.

This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is not intended to nor does it impose legally-binding requirements on any party. It represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the general public, and the Coast Guard, as well as other federal and state regulators, in applying statutory and regulatory requirements. You can use an alternative approach for complying with these requirements if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach (you are not required to do so), you may contact the District Commander who is responsible for implementing this guidance.

SECTION 2 PERMIT APPLICATION

The Coast Guard bridge permitting process is directed by laws, policies, professional standards, and other requirements. This chapter is a guide to help you through the bridge permit application process. Additional information may be found at 33 CFR, Parts 114 and 115.

A. THE APPLICATION PACKAGE - The application package consists of a cover letter, permit plans, and an environmental evaluation. A checklist for each of these portions of the application follows this section.

1. Per 33 CFR 1115.50(k), when you apply for a bridge permit, submit an application package to the cognizant Coast Guard District Bridge Office which has jurisdiction over the area of the proposed bridge site.
2. Format the application cover letter as shown below.

Salutation (i.e. Dear Sir;)

Application is hereby made for a Coast Guard Bridge Permit.

a. Applicant information:

- 1) Name;
- 2) Address;
- 3) Telephone number; and
- 4) Email address.

b. Consultant/Agent information (if employed):

- 1) Name;
- 2) Address;
- 3) Telephone number; and
- 4) Email address.

c. Proposed Bridge(s):

- 1) Lead federal agency for environmental review;
- 2) Name of the waterway that the bridge crosses;
- 3) Number of miles above the mouth of the waterway where the bridge is located and provide latitude and longitude at centerline of navigation channel (contact the local Coast Guard Bridge Office for guidance);

- 4) City or town, county, and state where the bridge is located at, near, or between;
 - 5) Brief description of project to include type of bridge proposed and existing bridge at project site, if applicable;
 - 6) Purpose and need of project;
 - 7) Estimated cost of bridge and approaches;
 - a) Provide the estimated cost of the bridge as proposed, with required vertical and horizontal navigational clearances.
 - b) Provide the estimated cost of a low level bridge on the same alignment with only sufficient clearance to pass high water while meeting the intended purpose and need.
 - 8) Type and source of project funding (federal, state, private etc).
- d. Legal Authority for proposed action:
- 1) The primary authority for the construction of the bridge and under what legislative authority the bridge is being built (state permit, charter, or statement of ownership of lands); typically the General Bridge Act of 1946, as amended; and
 - 2) The legislative authority for the existing bridge as listed in the original permit if it is to be replaced.
 - 3) If the applicant does not own the existing bridge which is being replaced or modified, include a signed statement from the bridge owner authorizing the removal or modification work.
- e. International bridges (if applicable):
- 1) The International Bridge Act of 1972, or a copy of the Special Act of Congress if constructed prior to 1972, should be cited as the legislative authority for international bridge construction; and
 - 2) Presidential approval shall be obtained from the State Department prior to issuing a Coast Guard bridge permit under the International Bridge Act of 1972.
- NOTE:** Please include a copy of State Department approval for international bridges in the application package for a Coast Guard bridge permit.
- f. Dimensions of the navigation opening: (All navigational clearances should be stated in US linear feet. Provide clearances in meters if international bridge).
- 1) Vertical clearance: This is the vertical distance between the lowest part (e.g., member, chord, or steel) of the superstructure spanning the navigation channel and the recognized datum (e.g., MHW, 2% flow line, etc.) at the bridge site. Cite clearances above the appropriate high water elevation and low water elevation. In

the case of movable bridges, cite clearances in the open and closed positions. In some situations, vertical clearances should be cited at the margins of channel, and for a bascule bridge clearances at the tip of the leaves, if not fully open.

- 2) **Horizontal clearance:** This is the horizontal distance, measured normal to the axis of the channel, through which the stated vertical clearance is available. Clearance may be between piers (full width of the span), between the bridge protective system, or bank-to-bank in the case of a bridge having no piers in the waterway.
 - 3) **Length of bridge project:** This is the horizontal distance from abutment-to-abutment or approach-to-approach.
 - 4) **Width of project:** This is the width of the bridge at its widest point (out-to-out).
 - 5) **Depth of the waterway:** At the appropriate elevation (e.g., NGVD 1929, NAVD 1988, etc.).
 - 6) **Width of waterway:** At project site at MHW if tidal or OHW if non-tidal.
- g. We recommend you discuss waterway characteristics, waterway usage, and prospective long term navigational impacts of the proposed project, and include:
- 1) The name and contact information for marine facilities within a 3-mile radius of the project [public boat ramps, marinas (or major docking facilities), boat repair facilities, etc.];
 - 2) The approximate width of the waterway at the proposed bridge location (bank to bank, shoreline to shoreline, etc.);
 - 3) The depths of the waterway at the proposed bridge location in and around the navigation channel;
 - 4) A description of vessels on the waterway that are engaged in emergency operations, national defense activities, or channel maintenance, and any potential impacts to their operation;
 - 5) Information regarding whether the Corps of Engineers has completed or plans to complete a federal navigation project on this waterway;
 - 6) A description of the present and prospective recreational navigation on the waterway, indicating whether the proposed project will have an impact on the safe, efficient movement of any segment of the present or prospective recreational fleet operating on the waterway;
 - 7) A description of the present and prospective commercial navigation and the cargoes moved on the waterway, indicating whether the proposed project will have an impact on the safe, efficient movement of any segment of the present or prospective commercial fleet operating on the waterway;

- 8) Whether the proposed bridge will block access of any vessel presently using local service facilities;
 - 9) Whether alternate routes bypassing the proposed bridge are available for use by vessels unable to pass the proposed bridge;
 - 10) A description of any local harbor, indicating whether the bridge will prohibit the entry of any vessels to the local harbor refuge;
 - 11) Whether the proposed bridge will be located within one-half mile of a bend in the waterway;
 - 12) Whether there are factors located within one-half mile of the proposed bridge which would create hazardous passage through the proposed structure and a description of each factor;
 - 13) Whether local hydraulic conditions increase the hazard of passage through the proposed bridge and a description of these conditions;
 - 14) Whether atmospheric conditions increase the hazard of passage through the proposed bridge and a description of these conditions;
 - 15) A description of guide clearances established for the waterway, if applicable. If not, indicate whether clearance gauges are needed and why;
 - 16) A description of any other factors considered necessary for the safe, efficient passage of vessels through the proposed bridge; and
 - 17) A description of the impacts to navigation caused or which could be reasonably caused by the proposed bridge including but not limited to: proposed construction methodology, proposed or prospective changes to the existing bridge operating schedule (for movable bridges), and any proposed mitigation to all unavoidable impacts to navigation.
 - a) Conduct a navigational evaluation, and include a review of all bridges upstream and downstream of the proposed site to determine the minimum vertical and horizontal clearances available on the waterway.
 - b) If the proposed bridge is fixed, and is replacing an existing drawbridge with unlimited vertical clearance, you must determine whether the proposed bridge will accommodate existing and perspective navigation.
- h. Existing bridge(s) if applicable:
- 1) Name(s) of bridge: e.g., US 40 Highway Bridge; or Coleman Memorial Bridge; or State Route 7 Bridge also known as Preston Falls Bridge;
 - 2) Type of bridge: e.g., fixed or moveable (drawbridge, bascule, vertical lift, swing span); highway, railway, pedestrian, pipeline;

- 3) Mile point, latitude and longitude at centerline of bridge, and navigational clearances, in linear measurement; and
 - 4) Owner of the bridge.
- i. Discuss construction methodology and removal of existing bridge(s), as applicable:
 - 1) Discuss proposed construction methodology and restrictions;
 - 2) Discuss maintenance of land and waterborne traffic during construction activities;
 - 3) Discuss extent of removal of existing bridge, time needed for removal, etc.; and
 - 4) Discuss demolition methodology.

NOTE: Because the safety of navigation is of paramount importance, the Coast Guard shall make the final decision concerning the extent of bridge removal.
 - j. Other Agencies with jurisdiction over the proposed project:
 - 1) Agency; and
 - 2) Permits or type of approvals required for the project.
 - k. Summary of environmental analysis.
 - 1) Identify lead federal agency for NEPA. (For an EIS include date filed with EPA and a copy of the Record of Decision); and
 - 2) Indicate whether the proposed bridge will have a significant effect on the human environment and briefly identify impacts.
1. Signature Block (applicant/consultant/agent).
3. Include the following attachments (if applicable) with the application package:
 - a. Original and one copy of map of the location/vicinity and plan sheets on standard 8 ½ x 11" paper (See Plan Sheet Checklist);
 - b. Environmental Evaluation or Re-Evaluation (contact the local Coast Guard District Office for re-evaluation requirements). (See Section 2.C.);
 - c. Navigation Survey to support vertical and horizontal navigation clearance requirements;
 - d. Vessel Impact Assessment, if required by the District Commander;
 - e. Lead federal agency's Final CE determination, EA, EIS, FONSI, or ROD as appropriate (If EIS, provide EPA filing dates for DEIS & FEIS). When the Coast

Guard is the lead federal agency, the Coast Guard must concur with the selection of the consultant used for the development of the environmental document;

- f. Authorization for applicant to make application to modify or remove another's bridge;
 - g. Consultant/ Agent authorization letter;
 - h. Proof of ownership of existing bridge;
 - i. Proof of right to build (ownership of land);
 - j. Extracts of motions from meetings authorizing construction of the proposed bridge;
 - k. Water quality certification under 33 U.S.C. 1251 (and proof of application requesting it), to include time extensions, waivers, or a statement from the certifying agency that the WQC is either still valid or that WQC is not needed. (See Section 2.C.1.b.);
 - l. CZM consistency statement, to include time extensions. (See Section 2.C.1.c.);
 - m. State agency concurrence in CZM consistency certification, to include time extensions, or a statement from the certifying agency that the state concurrence is still valid;
 - n. List of property owners – at a minimum adjacent property owners, formatted in Microsoft Excel, or comparable spreadsheet software. Please contact the local bridge office for additional guidance; and
 - o. Provide a summary of preliminary conferences and early coordination or scoping efforts with applicant and/or interested parties. Include information about public meetings.
4. Applications for Extensions of Time.
- a. Per 33 CFR 114.45, applicants must submit to the appropriate Coast Guard District Commander, time extension requests to commence or complete bridge construction, or to remove a bridge being replaced as part of a permitted bridge project. Submit the following information when requesting an extension of time:
 - 1) Description of construction;
 - 2) Status of the construction work;
 - 3) An explanation of why the project will not be commenced/completed on time, i.e. why an extension is needed;
 - 4) Percentage of project completed to date;
 - 5) Projected completion date and how long the applicant wishes for the permit extension;

- 6) Water Quality Certification and application for Certification;
- 7) Coastal Zone Management (CZM) consistency certification;
- 8) State concurrence with CZM consistency certification; and
- 9) Environmental documentation: Any categorical exclusions, environmental assessments, environmental impact statements, supplemental studies, findings of no significant impact, records of decision or reevaluations required by the lead agency.

B. PLAN SHEETS - Plans submitted with the bridge permit application become an official, and permanent, part of the issued permit or permit. To minimize delays, provide the following information:

1. Plan Sheet Checklist - Use the following checklist for specifics to include with bridge plans:

a. General

_____ Provide all plans on standard 8 ½ X 11” paper. Include the original plus one copy of the plans (of good reproducible quality), on the fewest sheets possible that still show significant project structural details.

NOTE: Do not show bridge navigational lighting plans on bridge plan and elevation views. Use a separate sheet for the bridge lighting plan.

_____ Show all dimensions and distances in U. S. linear feet. For international bridges also show all dimensions in metric equivalent.

_____ Include the datum used in the plan and elevation view. Use the same datum for all submitted drawings (e.g. NAVD, NGVD).

_____ All plan sheets shall bear the stamp of a professional engineer certifying the design meets American Association of State Highway and Transportation Officials (AASHTO) and/or American Railway Engineering and Maintenance-of-Way Association (AREMA) standards, including private bridges. If the bridge has been designed to withstand vessel impact, a certified statement to that effect, along with the design vessel chosen, shall be included on the plan sheets by a professional engineer.

- b. Title Blocks – Include the following items in the title blocks (lower right-hand corner on all of the plan sheets):

_____ Applicant/Owner;

_____ Consultant/Agent;

_____ Name of Bridge;

- ___ Name of Waterway;
- ___ Mile point of bridge location (from confluence of mouth of waterway) in statute miles;
- ___ City, County, and State (state at, near, or between – as appropriate);
- ___ Date of plans (i.e. mm/dd/yyyy); and
- ___ Sheet number of total number of sheets in set (i.e. Sheet 1 of 5).

c. Location/Vicinity Map

- ___ Show graphic scale and north arrow;
- ___ Show location of bridge on waterway;
- ___ Identify the name of the waterway;
- ___ Show course of waterway (i.e. ebb/flood);
- ___ Show structures immediately adjacent to the proposed bridge and their relation to the proposed bridge;
- ___ Identify wildlife and waterfowl refuges and any historical and archaeological sites; and
- ___ Insert a small map of the state in which the project is located with an arrow showing the location of the proposed project.

d. Plan View

- ___ Show graphic bar scale and north arrow;
- ___ Identify the adjacent property owners at the four corners of the proposed structure(s);
- ___ Show existing shorelines;
- ___ Show ebb and flood in tidal waters and direction of flow in non-tidal waterway;
- ___ Show mean high and low waterlines in tidal areas. Show ordinary high water and ordinary low water elevations if proposed activity is in a non-tidal waterway;
- ___ Show all portions of existing bridge(s) that will remain in place;
- ___ Show principal dimensions of structure(s) from grade to grade. Show length, width, etc.;

- _____ Show location of dredging, excavation, fill or rip-rap. Give approximate number of cubic yards;
- _____ Show location of the bridge protective system, piles, cables, etc. existing or to be constructed in the waterway. Identify type of material to be utilized;
- _____ Show limits of navigational channel;
- _____ Show axis of channel;
- _____ Show horizontal clearances, normal to the axis of the channel between the bridge protective system, pilings, or abutments;
- _____ Show water depth at mean low (or ordinary low if non-tidal) at various locations in the channel, under, upstream and downstream of the bridge; and
- _____ Show outline of the bridge protective system.

e. Elevation View

- _____ Show graphic bar scale and north arrow;
- _____ Show mean high and mean low water elevations in tidal areas. Show ordinary high and low water elevations in non-tidal areas;
- _____ Show amount of fill in cubic yards below mean high water;
- _____ Show horizontal clearance normal to the axis of the channel between the bridge protective system, pilings, or abutments, as appropriate for navigational channel;
- _____ Show vertical clearances referenced to the appropriate high water stage either Mean High Water (MHW) or Ordinary High Water (OHW). Show vertical clearances at the center, as well as at the horizontal limits of the navigational channel (the most restrictive vertical clearance in the navigational channel);
- _____ If the bridge will have a draw, show the draw in the open and closed positions;
- _____ Show proposed and existing contour of waterway bottom; and
- _____ Show 100-year flood elevation.

f. Typical Section View

- _____ Show graphic bar scale;
- _____ Show out-to-out width of the structure(s). (This is the width of the bridge at its widest point.); and
- _____ Include location and dimensions of travel lanes, shoulders, sidewalks, fishing/pedestrian platforms, railings, pipelines, etc.

PLEASE SUBMIT THE FOLLOWING PERMIT PLAN SHEETS SEPARATELY IF APPLICABLE:

g. Details of the Bridge Protective System

_____ Show bridge protective system in plan and elevation views including detail of attachment to pier, countersunk bolts, and relationship to mean high and low waterlines (on elevation view).

h. Temporary Structures/Falsework

_____ Show temporary structures/falsework;

_____ Show existing bridge(s) to be removed; and

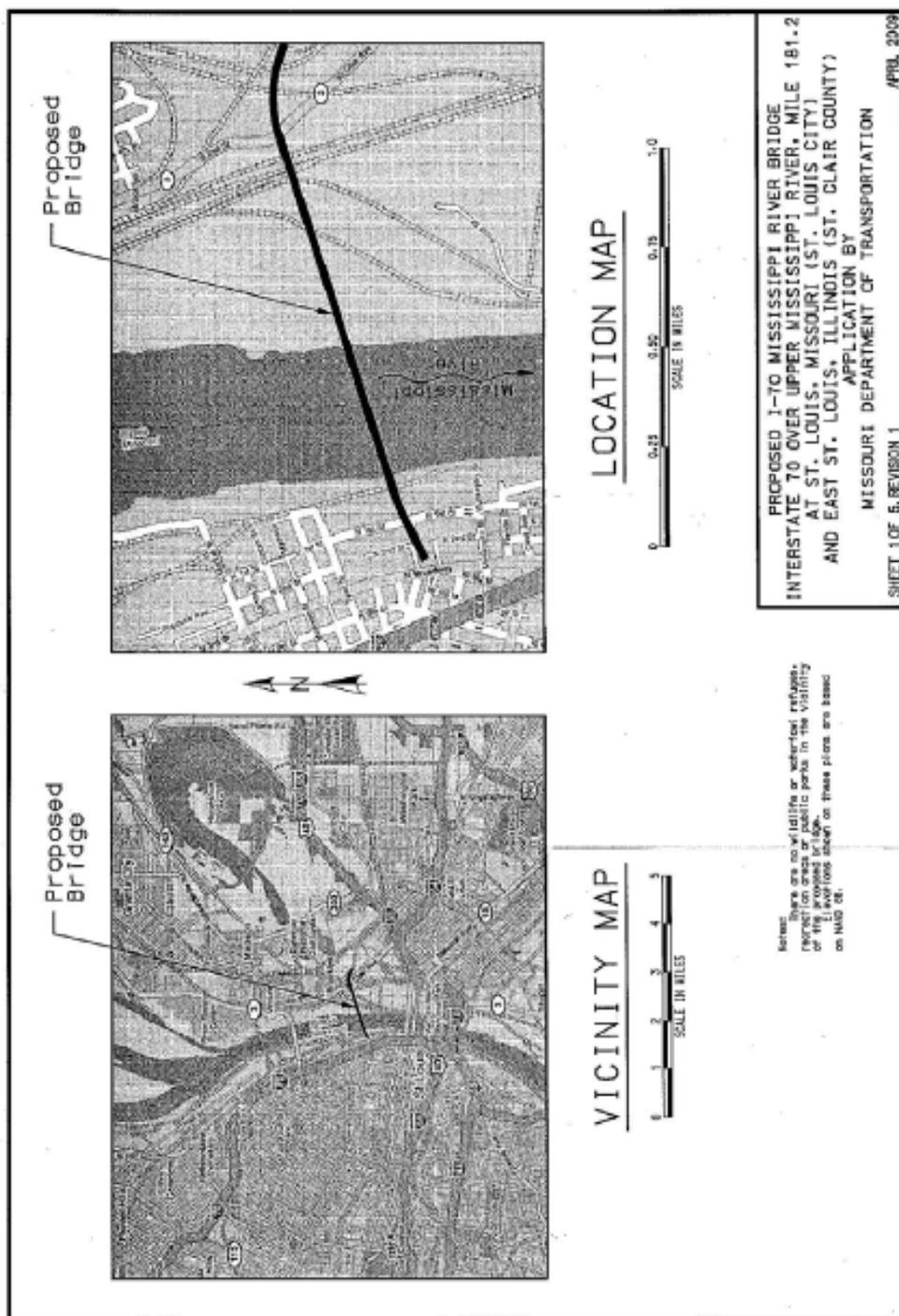
_____ Show minimum horizontal and vertical clearances during construction.

i. Bridge Lighting Plan

_____ Submit lighting plan application in accordance with 33 CFR 118 and bridge lighting guide (see USCG Bridge Program website). This is a separate application from the bridge permit application.

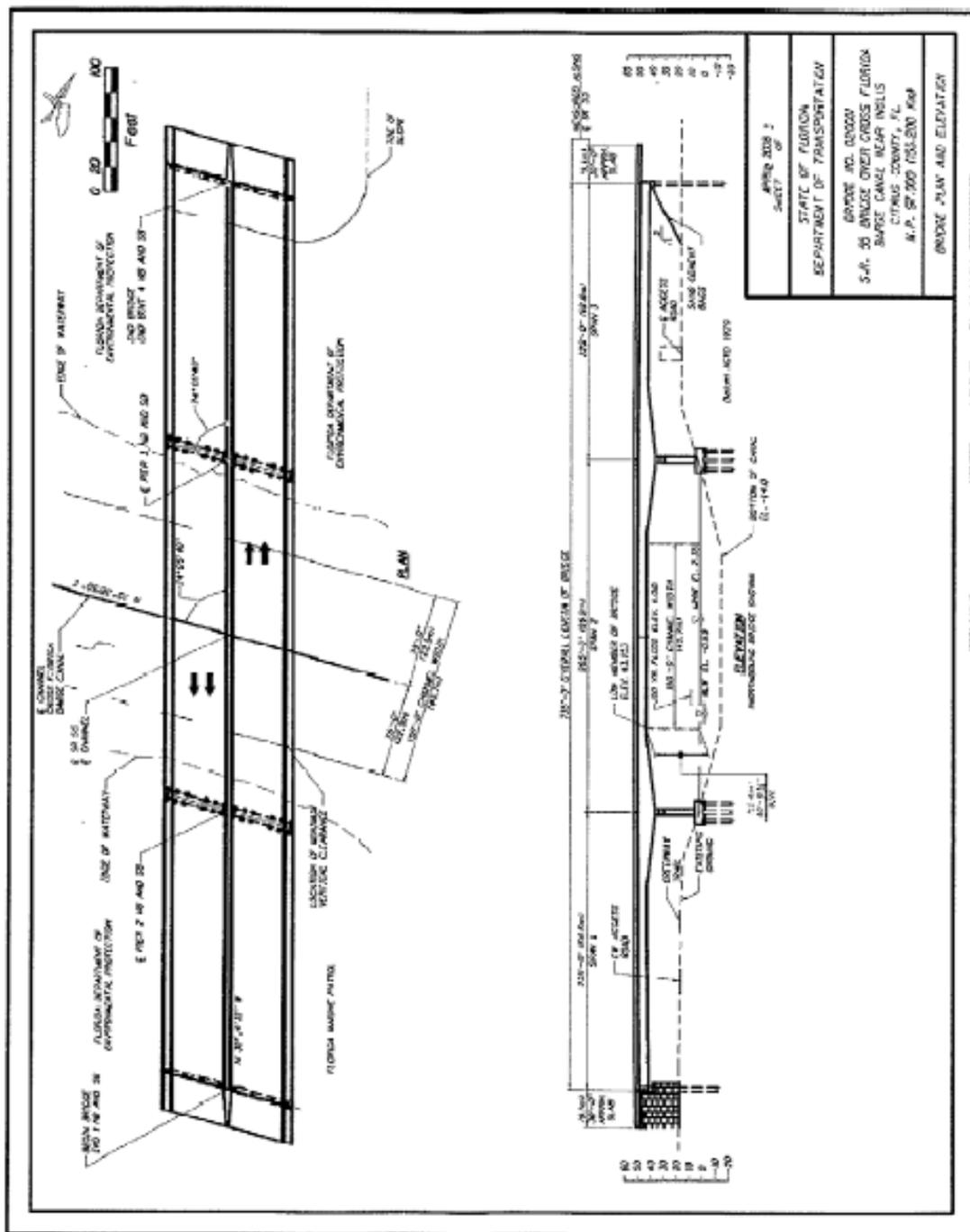
Example 2.2

Combined Vicinity and Location Map



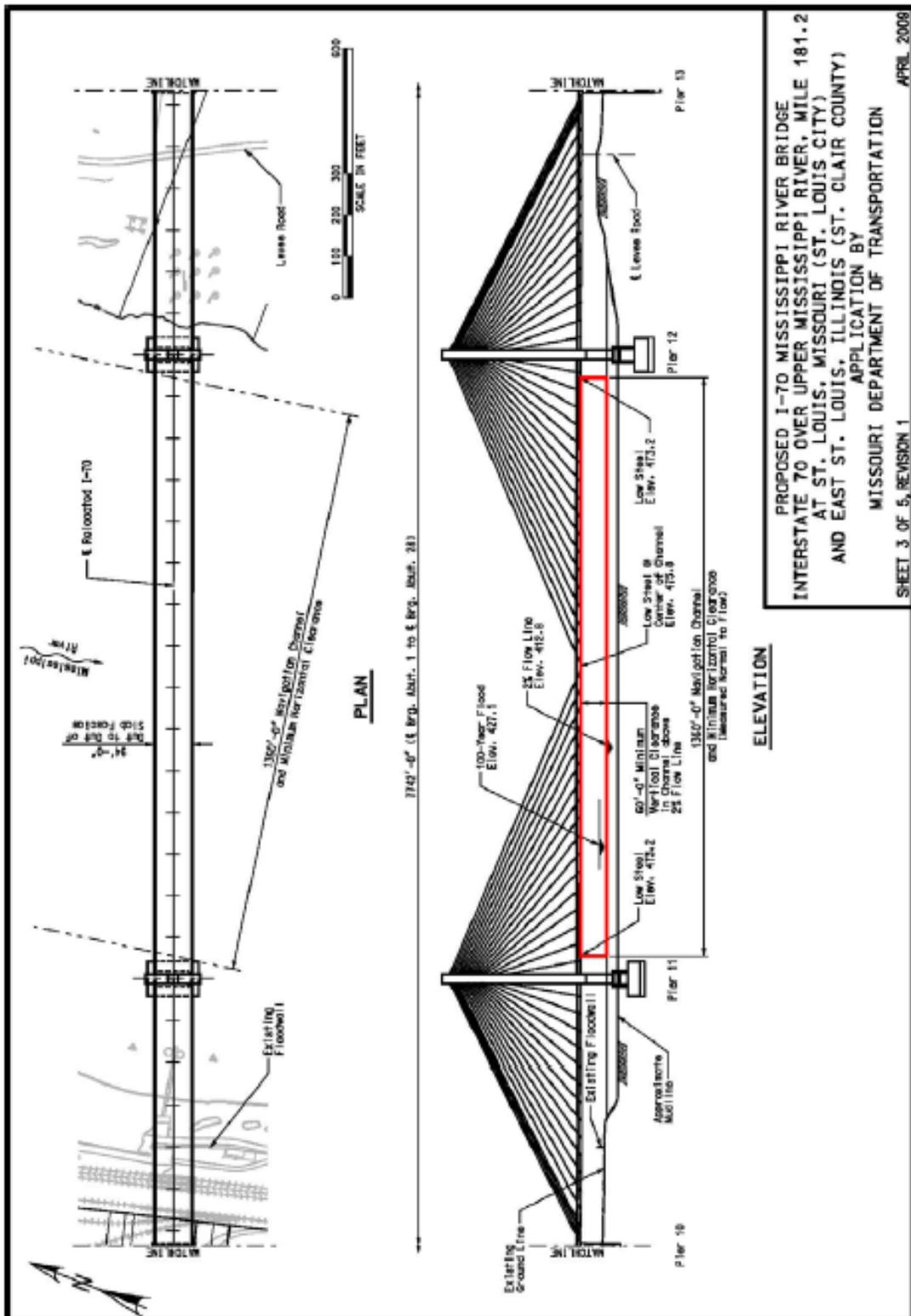
Example 2.3

Combined Plan and Elevation Views



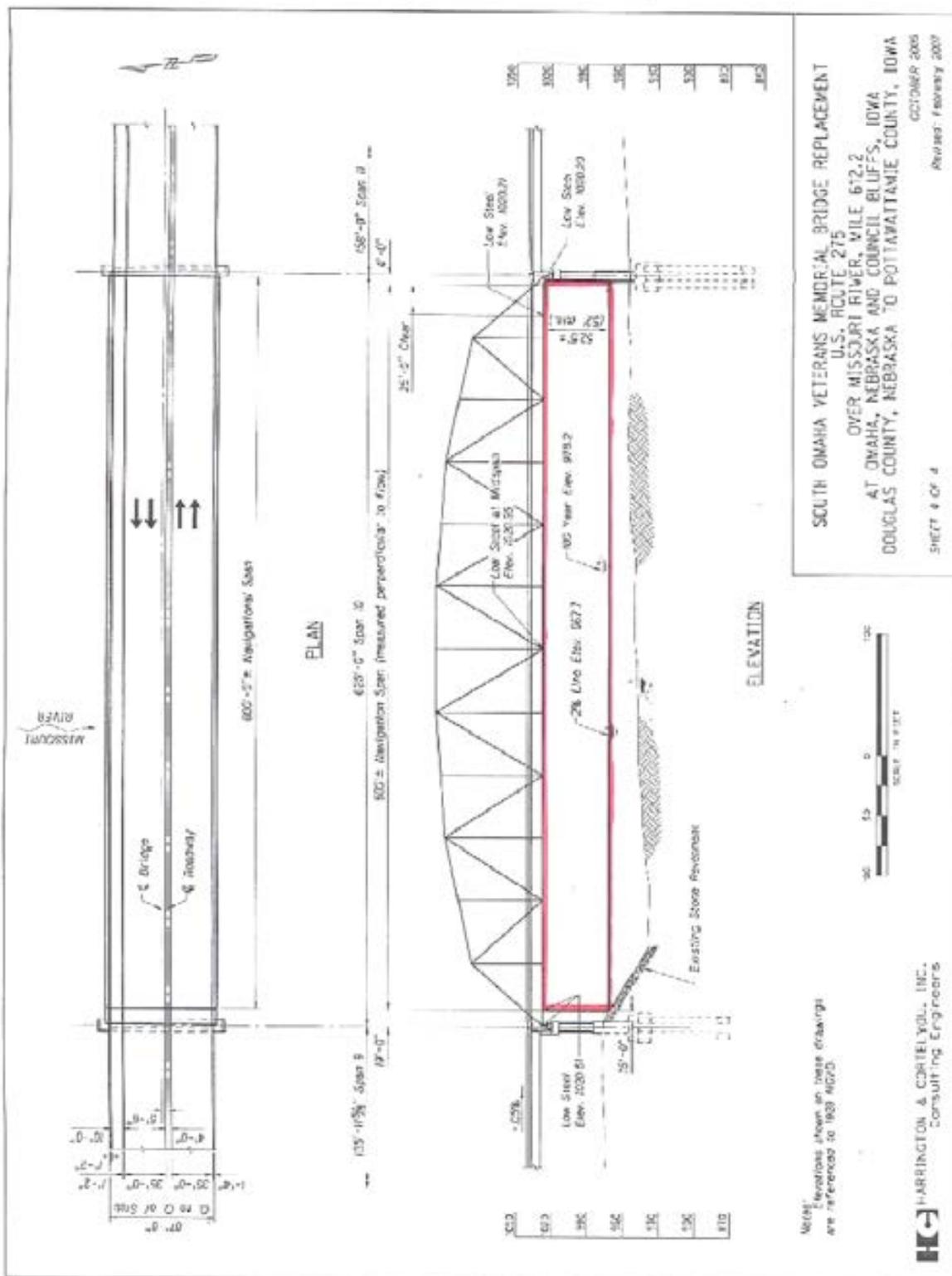
Example 2.4

Combined Plan and Elevation Views



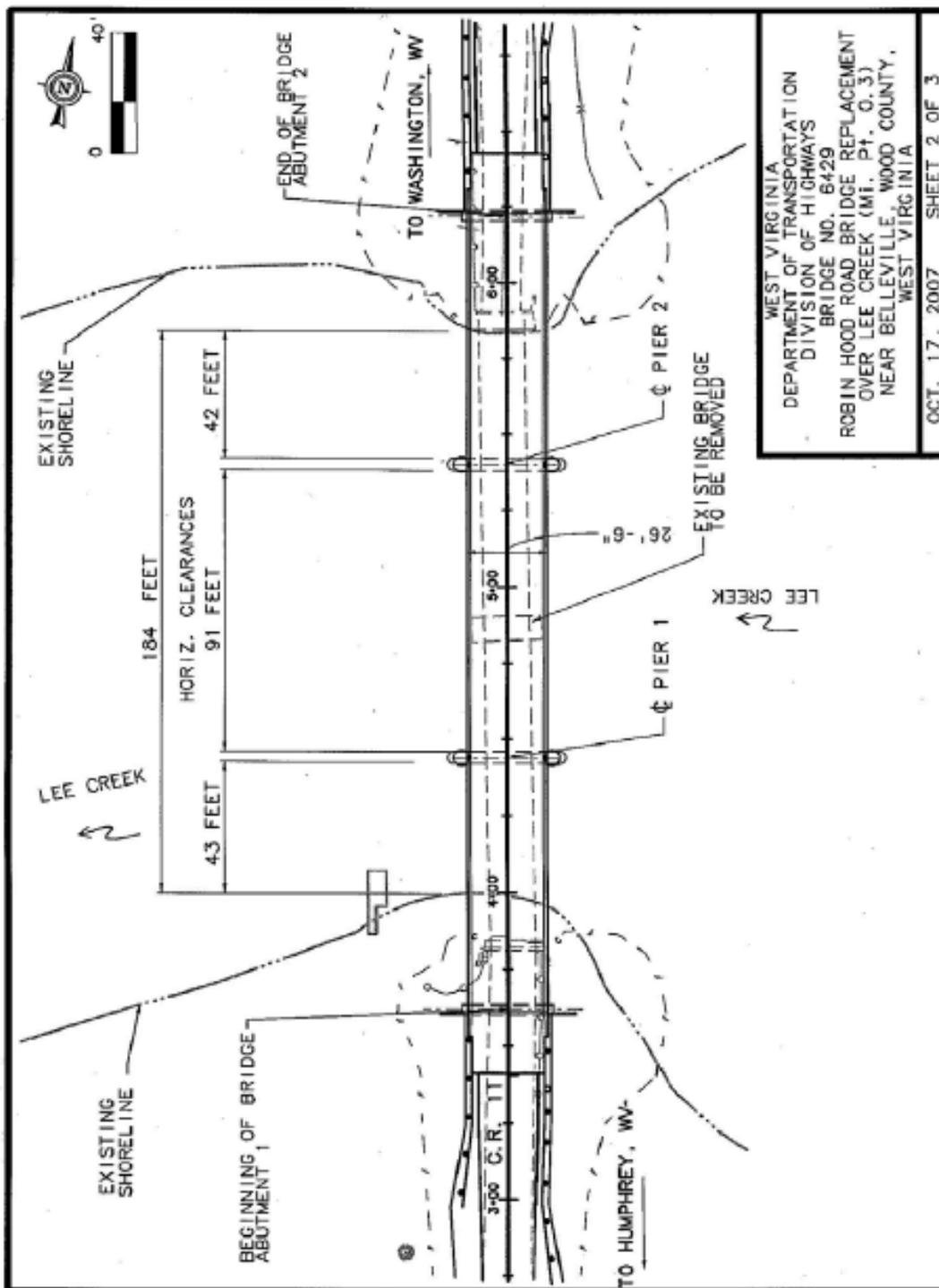
Example 2.5

Combined Plan and Elevation Views

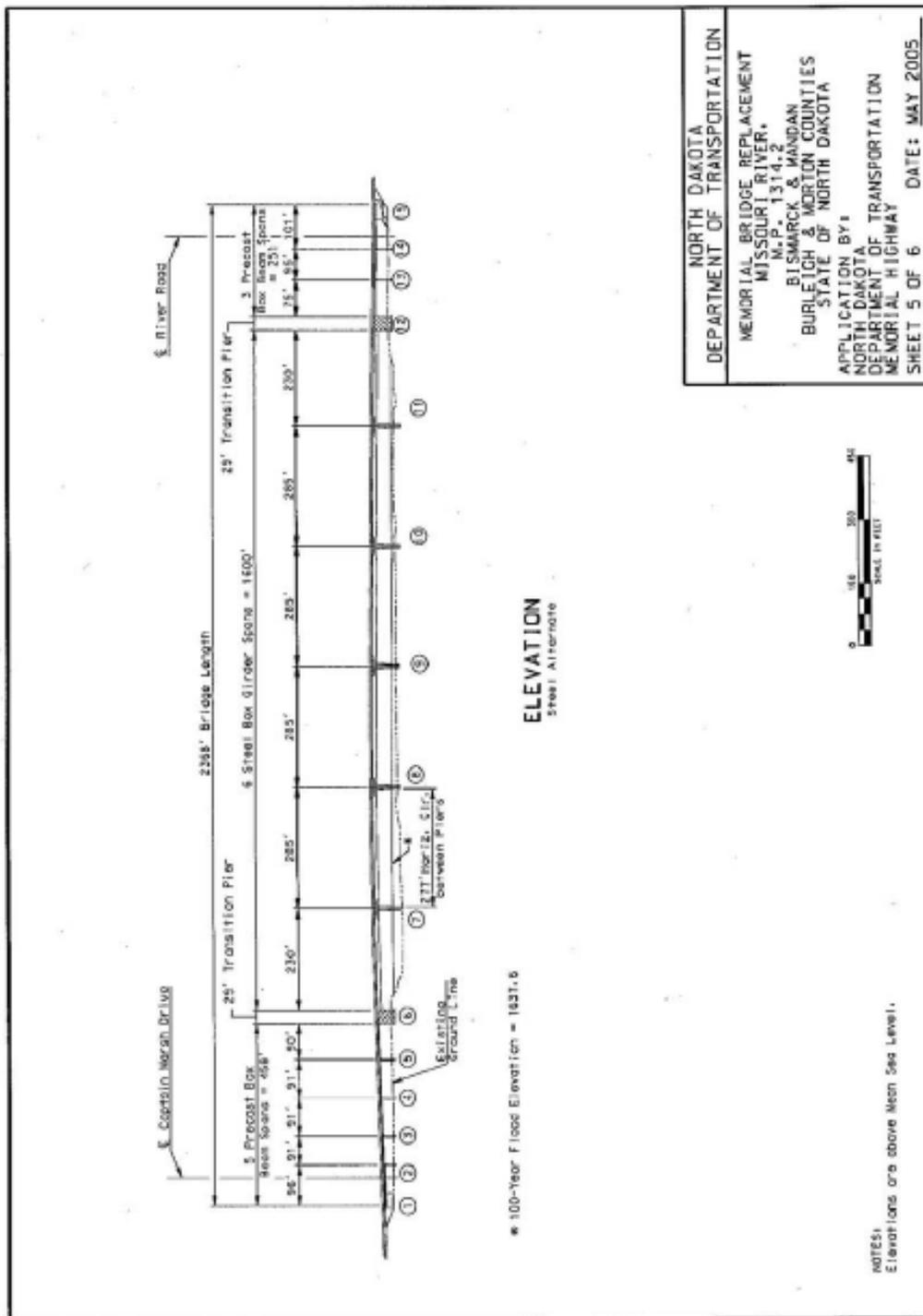


Example 2.6

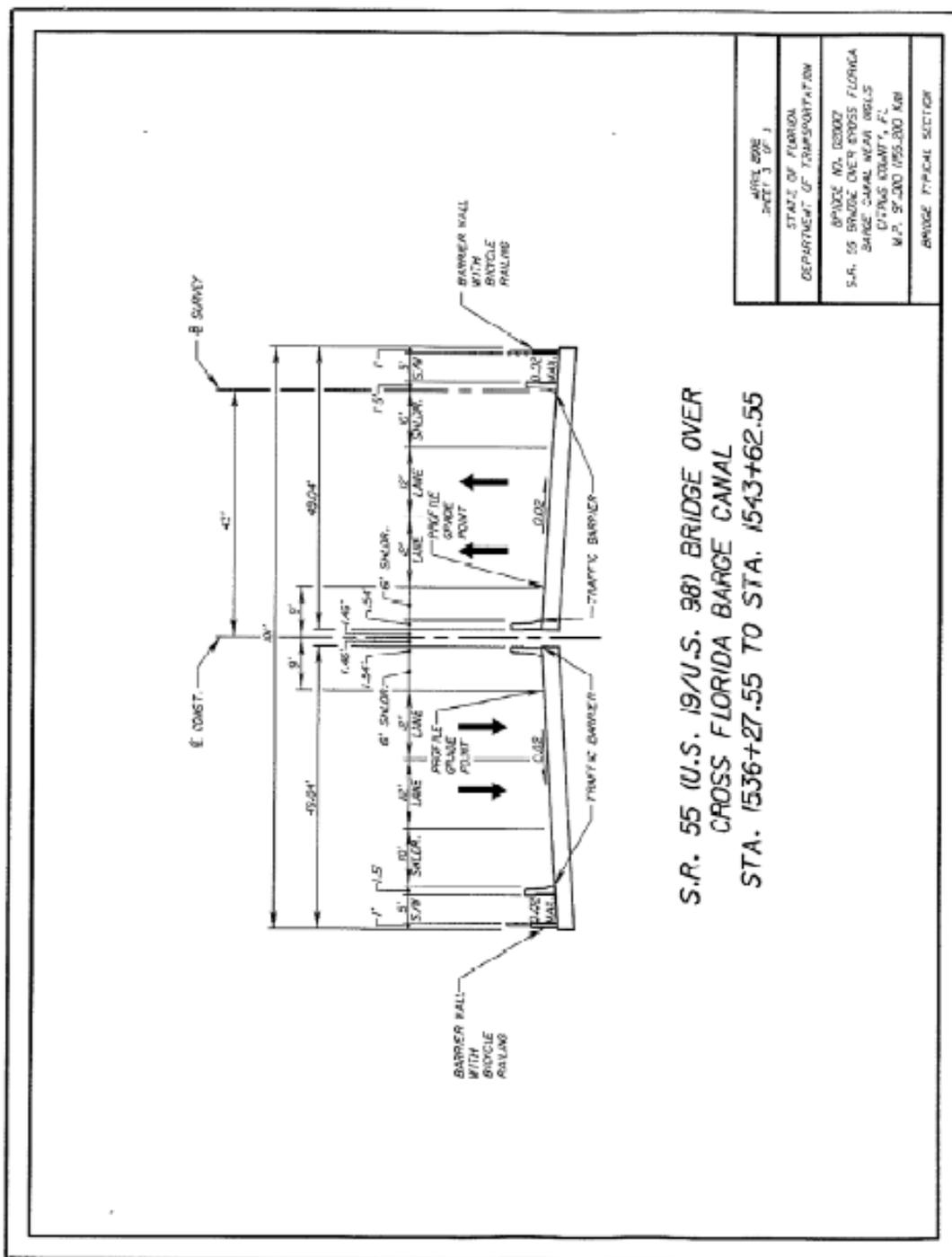
Plan View



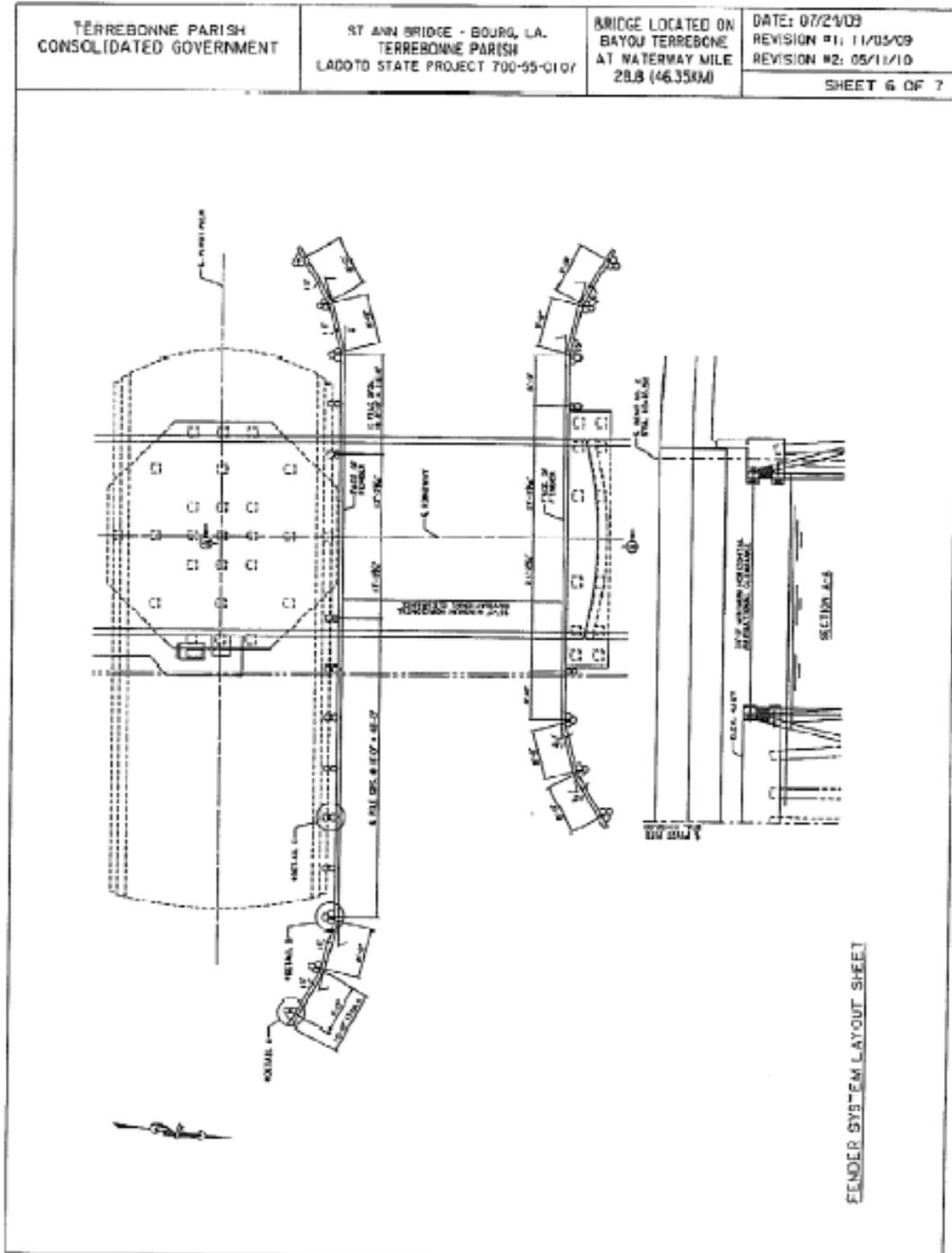
Example 2.7
Elevation View



Example 2.8
Typical Cross Section

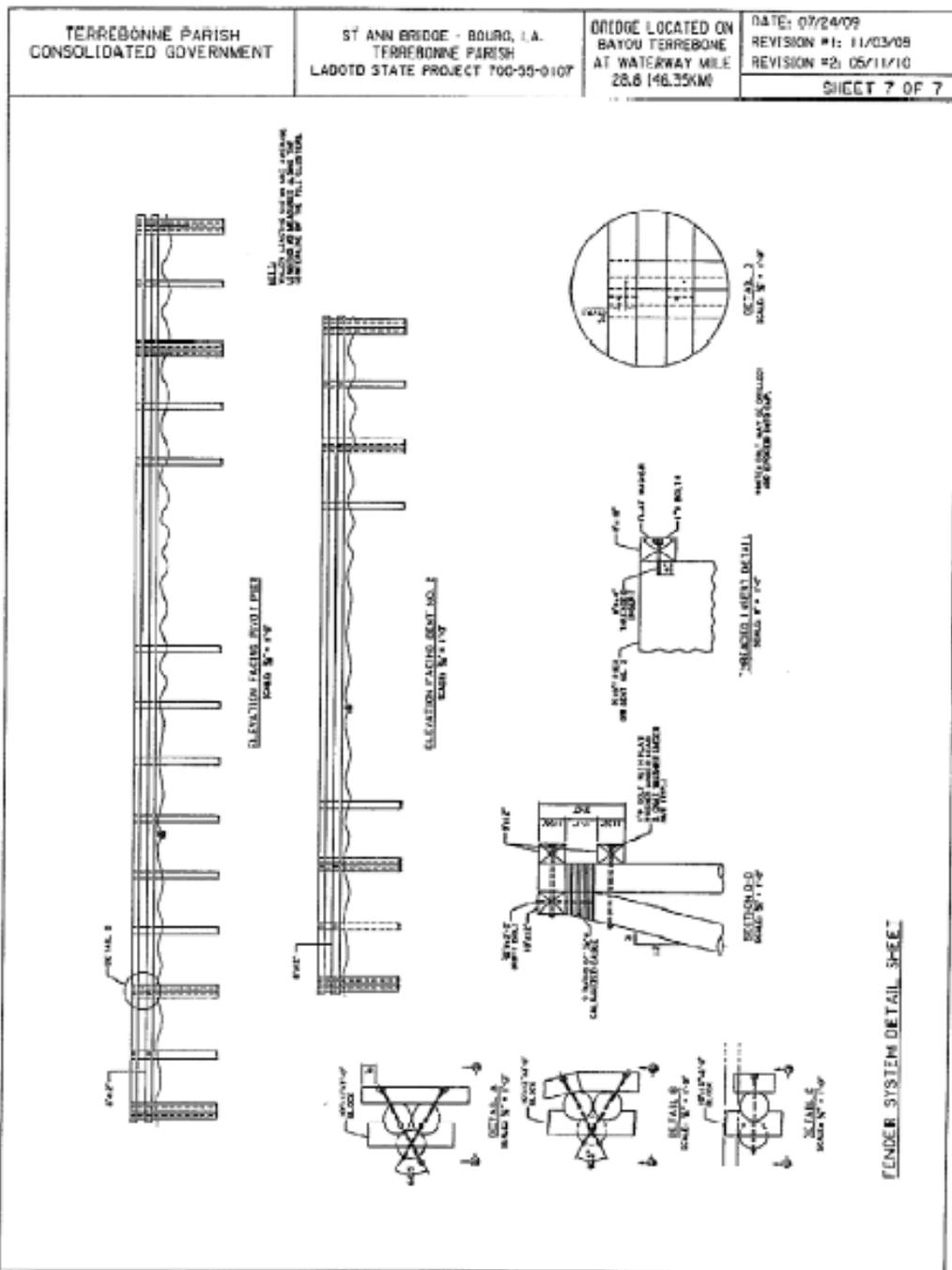


Example 2.9
Bridge Protective System



Example 2.10

Bridge Protective System



C. ENVIRONMENTAL DOCUMENTATION REQUIREMENTS

1. Per the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321) as amended, and its implementing regulations (40 CFR 1500-1508), the following information is required for all application packages:
 - a. **Alternatives:** NEPA requires all federal agencies to use a systematic, interdisciplinary, scientific approach when analyzing project impacts under their respective jurisdictions.
 - 1) These studies must assess: primary and causally related impacts due to the construction of the proposed bridge project, irreversible or irretrievable commitments of resources, comments of federal, state and local government agencies having jurisdiction by law or expertise, and comments of other interested parties or groups. The potential impacts on navigation are considered to be a significant part of the environmental impacts and shall be included in the NEPA review process. When the Coast Guard is the lead federal agency in a project involving a bridge, the NEPA jurisdiction extends to the logical termini on both sides of the bridge or the bridge and road sections having independent utility.
 - 2) Per 40 CFR 1502.14, the following information is required to document alternatives:
 - a) Identification of the alternatives for the proposed project (Alternatives provided should be more than just build and no build. Alternatives should include various bridge types considered.);
 - b) Location;
 - c) Design;
 - d) Probable impacts of each alternative on the quality of the human environment;
 - e) Commitments of resources; and
 - f) Comments of federal, state and local government agencies, and other interested parties or groups. (For further information, contact the local Coast Guard District.)
 - b. **Clean Water Act Coordination:** Section 401 of the Clean Water Act of 1977 (33 U.S.C. 1251), as amended, prohibits federal permitting or licensing agencies from issuing authorizations for construction activities having discharges into navigable waters, until the appropriate water quality certifying agency has issued a water quality certification or waiver procedures have been satisfied.
 - 1) **Water Quality Certification:** If applicable to the proposed project;

- a) State certifying agency name and point of contact with phone and email address. (e.g., State DEP, Water Management District, State Department of Natural Resources, etc.);
 - b) Obtain a Water Quality Certification (WQC), waiver or statement that the WQC is not required from the appropriate federal, interstate, or state agency and include in the permit application package, along with a copy of the WQC application, if applicable;
 - c) If the WQC has not yet been obtained, but has been applied for, include the proof of application in the permit application package;
 - d) If WQC was waived, provide authority of the waiver; and
 - e) Specify if the WQC is granted under a Programmatic Agreement (e.g., US Army Corps of Engineers Nationwide Permit (NWP) and the NWP number, etc.).
- 2) NPDES Permit: List coordination, date(s), enclosures, and EPA comments, if applicable.
 - 3) Safe Drinking Water Act: List coordination, date(s), enclosure(s), and EPA comments, if applicable.
- c. **Coastal Zone Management Plan:** The Coastal Zone Management (CZM) Act of 1972 (16 U.S.C. 1451), as amended, and its implementing regulations (15 CFR 930), requires all projects located within the designated coastal zone of a state to be consistent with the state's federally approved CZM plan.
- 1) Section 307 of that act instructs federal agencies not to take action until they have received written certification from the applicant and the state CZM agency, signifying that the proposed project is consistent with the state's coastal zone management plan.
 - 2) If the State or territory has a federally approved CZM plan, and the project is located in the coastal zone, the following information is required:
 - a) Written certification and date that the proposed project is consistent with the approved state CZM Plan; and
 - b) The State CZM Program office concurrence in writing with the certification. (For further information, contact the State Coastal Zone Management Office.)
 - 3) Per the Coastal Barrier Resources Act of 1982: 16 U.S.C. 3501, verify that the proposed project complies with the listed act's guidance (if applicable).
 - 4) List Executive Order 13089 – Coral Reef Protection coordination, and US Coral Reef Task Force, if applicable.

- d. **Floodplain:** The base floodplain is the area that would be inundated by a base flood or 100-year flood. The base flood is defined as that flood having a one-percent chance of being exceeded in any given year. Executive Order 11988, Floodplain Management and Protection, requires federal agencies to avoid authorizing projects in the base floodplain unless there is no practical alternative. By their very nature, most bridges are located within the base floodplain. Therefore, the Coast Guard must ensure that the project design includes all measures practicable to minimize floodplain impacts and to protect the natural and beneficial values of the floodplain.
- 1) State whether the proposed project is located in a base floodplain. If the proposed project is located in a base floodplain, be sure that the application package includes the following information:
 - a) Describe extent of encroachment in base floodplain to include amount fill;
 - b) The degree that the action supports development in the floodplain;
 - c) Any risk to human safety (For further information, contact the regional office of the Federal Emergency Management Agency (FEMA). State the FEMA Flood Insurance Rate Map Community Panel Number and panel dates, if applicable;
 - d) Cite the 100-year flood elevation and proposed bridge low member (chord, or steel) elevation, within the 100-year floodplain; and
 - e) Describe the effect of the proposed bridge on drift and flood height.
- e. **Historic/Cultural Resources:** All bridge actions require compliance with:
- 1) The National Historic Preservation Act of 1966, Section 106 (16 U.S.C. 470);
 - 2) Protection and Enhancement of the Cultural Environment (E.O. 11593);
 - 3) Native American Graves Protection and Repatriation Act;
 - 4) Antiquities Act of 1906;
 - 5) Archaeological Resources Protection Act of 1979; and
 - 6) American Indian Religious Freedom Act of 1978.

For further information, contact National Park Service, State Historic Preservation Officer (SHPO), local parks or recreation officials, or local historic preservation organizations. If the proposed project impacts any resources covered under any of the above mentioned Acts or Executive Orders:

- 1) Briefly describe these properties and discuss the impacts of the proposed project;
 - 2) Briefly describe mitigation efforts to reduce these impacts;
 - 3) Provide a copy of Cultural Resource Assessment Survey, if applicable;
 - 4) If applicable, provide other unique information regarding Section 106 process, such as any correspondences with applicable historic preservation and cultural resources agencies for compliance with the National Historic Preservation Act, Executive Order 11593 – Protection and Enhancement of the Cultural Environment, Native American Graves Protection and Repatriation Act, Antiquities Act of 1906, Archaeological Resources Protection Act of 1979, and American Indian Religious Freedom Act of 1978. Include all correspondence, if applicable; and
 - 5) Include all coordination from Advisory Council on Historic Preservation, National Park Service, SHPO, and other unique and substantive information, if applicable.
- f. **Wetlands:** Wetlands are defined as lands either permanently or intermittently covered or saturated with water. Executive Order 11990, Protection of Wetlands, states that no federally approved project shall occur in wetlands unless there is no practical alternative to constructing in the wetlands. As a result, the Coast Guard must analyze alternative locations which avoid taking wetlands. If no alternative locations or designs are practicable, then the Coast Guard must ensure that the project design includes all practicable measures to minimize wetland impacts. If the proposed project is located in or adjacent (within 500 feet) to a wetland, the following information is required:
- 1) Type and acreage of wetlands taken;
 - 2) A brief description of efforts to mitigate impacts and estimated monetary/functional value, if known or can be reasonably estimated;
 - 3) Date the Wetlands Finding was approved and include a copy of the Wetlands Finding, as applicable; and
 - 4) The amount of acreage saved or increase in wetlands resulting from mitigation efforts.
- g. **Fish and Wildlife**
- 1) **Threatened and Endangered Species:** The Endangered Species Act of 1973 (16 U.S.C. 1531), as amended, prohibits any activity threatening the continued existence of a federally designated endangered or threatened species. If threatened or endangered species are potentially present in the proposed project area, then the applicant must:

- a) Contact the U. S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and the State Fish and Game Commission representatives for assistance in determining whether the project is located in the range or habitat of endangered or threatened species;
 - b) If the project is within the range of such species, list species and discuss impacts or lack thereof;
 - c) Briefly discuss mitigation efforts to reduce the impact;
 - d) Provide the date and a copy of any biological assessment prepared or approved, if applicable; and
 - e) List any correspondence and dates of consultations with Federal, state or local agencies to determine compliance with Endangered Species Act of 1973, Fish & Wildlife Coordination Act (FWCA), Marine Mammal Protection Act of 1972, Migratory Bird Treaty Act of 1918, Executive Order 13186 – Responsibility of Federal Agencies to Protect Migratory Birds, Bald and Golden Eagle Protection Act, National Marine Sanctuaries Act, Executive Order 13112 - Invasive Species, and other unique and substantive information, if applicable.
- 2) **Essential Fish Habitat:** The Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1855), as amended, requires federal agencies which fund, permit, or carry out activities that may adversely impact Essential Fish Habitats (EFH) to consult with the National Marine Fisheries Service (NMFS) regarding potential adverse effects of actions on EFH.

If the applicant knows at the time of application for a bridge permit that the proposed project will impact EFH, the applicant should submit an EFH assessment technical memo.

- h. **Noise Levels:** All authorized bridge construction work must comply with the provisions of the Noise Control Act of 1972 (42 U.S.C. 4331), as amended. Under the Noise Control Act, the adverse impacts on existing activities or land uses that may result from the bridge, its related highway sections, or its construction must be considered.
 - 1) Include the following information in the application packet concerning noise levels:
 - a) The anticipated operational noise levels for the proposed project and mitigation;
 - b) The anticipated temporary construction noise/vibration levels for the proposed project and mitigation;
 - c) A description of all possible measures to minimize the noise impact if there is no alternative to avoid the adverse effects;

- d) State standards that were used as guides for noise levels for particular activity categories, for example the FHWA's Federal-Aid Highway Program Manual and any state or local ordinances that may be used (For further information, contact the local highway department); and
 - e) State whether the proposed project is in compliance with the Noise Control Act of 1972 and include EPA comments if applicable.
- i. **Clean Air:** All bridge actions must comply with the provisions of the Clean Air Act (CAA) [42 U.S.C. 7506(c)], as amended. Section 176(c) of the CAA, as amended (42 U.S.C. 7401), prevents the Coast Guard from approving any project or from issuing any permit for actions not conforming to the provisions of an approved Federal Implementation Plan (FIP) or to a State Implementation Plan (SIP). The Coast Guard must ensure that projects under its jurisdiction meet the National Ambient Air Quality Standards (NAAQS) before issuing a bridge permit.
- 1) NAAQS were established pursuant to Section 109 of the CAA and include standards for the following criteria pollutants:
 - a) Carbon monoxide (CO);
 - b) Lead (Pb);
 - c) Nitrogen Oxide (NO_x);
 - d) Ozone (O₃);
 - e) Particulate matter (PM₁₀); and
 - f) Sulfur dioxide (SO₂).
 - 2) The General or Transportation Conformity Rule applies to all proposed bridge projects in an area designated non-attainment or maintenance for any of the six criteria pollutants under the NAAQS.
 - a) When the General Conformity Rule (40 CFR 93.150) applies to bridge projects requiring a Coast Guard bridge permit, a conformity determination is required for each of the criteria pollutants identified in 40 CFR 93.153, unless the pollutant levels are deemed de minimus for the proposed project during construction and operational scenarios or are exempt under sections such as 40 CFR 93.126.
 - b) Transportation plans, programs and projects funded or approved under Title 23, United States Code, or the Federal Transit Act require air quality conformity analyses and determinations pursuant to 40 CFR Part 51 and 93, Subpart T (51.390, 93.100), the Transportation Conformity Rule. This determination is normally completed by the FHWA or the FTA, as appropriate, for Title 23 Projects. This rule also applies to projects that are

- regionally significant, per 40 CFR 93.121. EPA and/or the local air agency make the determination of regional significance.
- c) Both Conformity Rules apply when private funds are used for the project and the project is considered regionally significant.
 - 3) If the proposed bridge project is in an attainment area, the Conformity Rules do not apply. Actions do not require FIP or SIP conformity when neither the General nor Transportation Conformity Rules apply.
 - 4) Certain projects may generate low levels of direct or indirect emissions of the criteria pollutants. They are likely to be below minimum allowable levels and may be exempt from the General Conformity Rule air quality assessment.
 - 5) The Conformity Rules pertain to criteria pollutants only. NEPA documents should contain information on these criteria pollutants, attainment/non attainment status, conformity determinations, as well as, hazardous air pollutants, greenhouse gases and odor compounds.
 - 6) During the bridge permitting process, early coordination and consultation with the state and local air quality agencies is important to determine whether the project is consistent with an approved FIP or SIP governing the ambient air quality at the proposed bridge project location.
- j. **Wild and Scenic Rivers:** Section 7 of the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271), as amended, prohibits the issuance of any federal permit for construction of projects having adverse impacts on a river, or a proposed river, with values qualifying it for protection under this act.
- 1) To determine whether there are any designated or proposed wild, scenic, or recreational rivers located in or within ½ mile radius of the proposed project, the applicant should visit the U. S. National Park Service (NPS) website or contact a NPS representative with jurisdiction over the geographic area of the proposed bridge for assistance in identifying wild and scenic rivers in the project area. If the proposed project will affect a wild and scenic river:
 - a) List date that waterway was designated as a wild, scenic, and/or recreational river and include the proposed project's impacts;
 - b) List impacts and mitigation, and cite corresponding materials and dates, provide NPS comment, and provide other unique and substantive information, if applicable;
 - c) If the river is recreational, list compliance with Section 6(f) - Land and Water Conservation Fund Act of 1965, provide NPS comment, and provide other unique and substantive information, if applicable; and

- d) List compliance with Executive Order 13061 - American Heritage Rivers, provide CEQ comment, and provide other unique and substantive information, if applicable.
- k. **Residential or Business Displacement:** All bridge actions must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. 4601 and 4604). The Act applies to projects that involve federal action.
- 1) When applicable, the following information is required for displaced residences or businesses:
 - a) List businesses and residences affected by project; and
 - b) List impacts and mitigation.
 - 2) Bridge actions must also comply with the Executive Order 12898, Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations. (For further information, contact the local Coast Guard District.)
- l. **Prime and Unique Farmland:** The Council on Environmental Quality directed federal agencies authorizing construction projects to evaluate impacts on prime and unique farmlands. Agencies should ensure that such farmlands are not irreversibly converted to uses which eliminate their productivity, scenic or wildlife habitat values, or benefit as open space.
- 1) If prime and unique farmlands are within the proposed project area, then the applicant must:
 - a) Contact the U. S. Natural Resources Conservation Service (NRCS) representative with jurisdiction over the geographic area of the proposed project for information regarding prime and unique farmlands under the Farmlands Protection Policy Act of 1981 (7 U.S.C. 4201);
 - b) State the number of acres of designated prime or unique farmlands being taken by the proposed project; and
 - c) Contact the Coast Guard District with jurisdiction over the geographic area of the proposed project for further guidance if the project will affect prime and unique farmlands.
- m. **Other Environmental Controls/Laws:** list impacts and mitigation in reference to Federal, state, and other environmental controls/laws unique to this case and cite corresponding enclosure(s). Include in this list:
- 1) **Environmental Health and Safety Risks to Children:** List compliance with Executive Order 10345 – Environmental Health and Safety Risks to Children, and cite corresponding enclosure(s) and EPA comment, if applicable;

- 2) Occupation Safety and Health Act of 1970: List compliance with Occupation Safety and Health Act of 1970, and cite corresponding enclosure(s) and OSHA comment, if applicable;
 - 3) Emergency Planning and Community Right-to-Know Act: List compliance with the Emergency Planning and Community Right-to-Know Act, and cite corresponding enclosure(s) and EPA comment, if applicable;
 - 4) Federal Compliance with Right-To-Know Laws & Pollution Prevention Requirements: List compliance with Executive Order 12856 – Federal Compliance with Right-To-Know Laws & Pollution Prevention Requirements, and cite corresponding enclosure(s) and EPA comment, if applicable;
 - 5) Pollution Prevention Act of 1990: List compliance with the Pollution Prevention Act of 1990, and cite corresponding enclosure(s) and EPA comment, if applicable;
 - 6) Resource Conservation and Recovery Act: List compliance with Resource Conservation and Recovery Act, and cite corresponding enclosure(s) and EPA comment, if applicable;
 - 7) Federal Compliance with Pollution Control Standards: List compliance Executive Order 12088 – Federal Compliance with Pollution Control Standards, and cite corresponding enclosure(s) and EPA comment, if applicable;
 - 8) Environmental Effects Abroad of Major Federal Actions: List impacts and mitigation for Executive Order 12144 – Environmental Effects Abroad of Major Federal Actions, and cite corresponding enclosure(s) and EPA comment, if applicable; and/or
 - 9) Comprehensive Environmental Response, Compensation and Liability Act: List compliance with Comprehensive Environmental Response, Compensation and Liability Act, and cite corresponding enclosure(s) and EPA comment, if applicable.
- n. **Cumulative and Indirect Impacts:** Briefly discuss potential cumulative or indirect impacts, if any. List impacts and mitigation, cite corresponding materials and dates, and provide other unique and substantive information.

NOTE: For More Information – As stated throughout this guide, your local Coast Guard Bridge Office is available to provide information regarding any questions in the bridge permit application process.

2. **ENVIRONMENTAL CHECKLIST** - The following checklist is provided as a quick reference to ensure the Environmental Section of the permit application package is complete:

Environmental documentation, including the following items, if applicable:

- Alternatives
- Clean Water Act Coordination
 - Water Quality Certification
 - CZM Plan
- Floodplain
- Historic/Cultural Resources
- Wetlands
- Fish and Wildlife
 - Threatened and Endangered Species
 - Essential Fish Habitat
 - Migratory Bird Act
 - Marine Mammal Protection Act
- Noise Levels
- Clean Air
- Wild and Scenic Rivers
- Residential or Business Displacement
 - Environmental Justice
- Prime and Unique Farmland
- Other environmental controls/laws
- Cumulative and Indirect Impacts
- Navigation

TABLE 2.1 - Environmental Control Laws, Executive Orders, and Regulations Requiring Compliance, as applicable, with Bridge Program Actions

UNITED STATES CODE REFERENCES	IMPLEMENTING REGULATIONS
BRIDGE LAWS: <i>33 U.S.C. 401; 491 – 508; 511 TO 535(I)</i>	33 CFR PARTS 114 – 118
NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 <i>42 U.S.C. 4321</i>	40 CFR 1500 – 1508
CLEAN WATER ACT OF 1977 <i>33 U.S.C. 1251, 1352 AND 1330)</i> SAFE DRINKING WATER ACT <i>42 U.S.C. 300(f)</i> COASTAL ZONE MANAGEMENT ACT OF 1972 <i>16 U.S.C. 1451; and 3501 - 3503</i> COASTAL BARRIER RESOURCES ACT OF 1982 <i>16 USC 3501</i>	40 CFR PART 121 Water Quality Certification 40 CFR PARTS 401-503 and 136 15 CFR PART 930 E.O. 11990, Protection of Wetlands E.O. 11988, Floodplain Management and Protection DOT Order 5620.2 Floodplain Management E.O. 13089, Coral Reef Protection
NATIONAL HISTORIC PRESERVATION ACT OF 1966, SECTION 106 <i>16 U.S.C. 470</i> NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT <i>25 U.S.C. 3001</i> ARCHAEOLOGICAL RESOURCES PROTECTION ACT OF 1979 <i>16 U.S.C. 470aa. – 470ll.</i> AMERICAN INDIAN RELIGIOUS FREEDOM ACT OF 1978	36 CFR PARTS 60, 63, and 800 43 CFR 10 E.O. 11593, Protection and Enhancement of the Cultural Environment
FISH AND WILDLIFE COORDINATION ACT <i>16 U.S.C. 661 - 666</i> ENDANGERED SPECIES ACT OF 1973 <i>16 U.S.C. 1531</i> MARINE MAMMAL PROTECTION ACT OF 1972	50 CFR PART 17 50 CFR PART 402 50 CFR PART 216

Environmental Control Laws, Executive Orders, and Regulations Requiring Compliance, as applicable, with Bridge Program Actions	
NATIONAL MARINE SANCTUARIES ACT <i>16 U.S.C. 1431</i>	15 CFR PART 922
MAGNUSON – STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (Essential Fish Habitat) <i>16 U.S.C. 1855</i>	50 CFR PARTS 600.805 - .930 E.O. 13112, Invasive Species
MIGRATORY BIRD TREATY ACT OF 1918 <i>16 U.S.C. 703 – 712</i>	50 CFR PART 10 and 21
BALD AND GOLDEN EAGLE PROTECTION ACT	E.O. 13186, Responsibilities of Federal Agencies to Protect Migratory Birds
NOISE CONTROL ACT OF 1972 <i>42 U.S.C. 4331, 4332, and 4901</i>	23 CFR PART 772
CLEAN AIR ACT <i>42 U.S.C. 7401, 7410 and 7506(C)</i>	40 CFR PARTS 6, 51 and 93
WILD AND SCENIC RIVERS ACT OF 1968 <i>16 U.S.C. 1271 – 1287</i>	36 CFR PART 297
UNIFORM RELOCATION ASSISTANCE & REAL PROPERTY ACQUISITION POLICIES ACT OF 1970 <i>42 U.S.C. 4601 and 4604</i>	23 CFR PART 740 and 49 CFR PART 24 E.O. 12898 Environmental Justice
PRIME AND UNIQUE FARMLANDS (Farmlands Protection Policy Act of 1981) <i>7 U.S.C. 4201</i>	7 CFR PART 658 DOT Order 5610.1C, Procedures for Considering Environmental Impacts
OCCUPATIONAL HEALTH AND SAFETY ACT OF 1970 <i>29 U.S.C. 651</i>	29 CFR PART 1910
ENVIRONMENTAL HEALTH AND SAFETY RISKS TO CHILDREN	E.O. 10345, Environmental Health and Risks to Children
EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 <i>14 U.S.C. 116</i>	40 CFR PARTS 350-372
FEDERAL COMPLIANCE WITH RIGHT-TO-KNOW LAWS AND POLLUTION PREVENTION REQUIREMENTS	E.O. 12856, Federal Compliance with Right-to-Know Laws & Pollution Prevention Requirements
POLLUTION PREVENTION ACT OF 1990 <i>42 U.S.C. 13101</i>	40 CFR PARTS 112 & 300

Environmental Control Laws, Executive Orders, and Regulations Requiring Compliance, as applicable, with Bridge Program Actions	
RESOURCE CONSERVATION AND RECOVERY ACT <i>42 U.S.C. 9601</i>	40 CFR PARTS 239-282
FEDERAL COMPLIANCE WITH POLLUTION CONTROL STANDARDS	E.O. 12088, Federal Compliance with Pollution Control Standards
ENVIRONMENTAL EFFECTS ABROAD OF MAJOR FEDERAL ACTIONS	E.O. 12144, Environmental Effects Abroad of Major Federal Actions
COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980 <i>42 U.S.C. 103</i>	40 CFR PARTS 300 – 374

BRIDGE PERMIT PROCESSING PROCEDURE

The information provided below outlines the steps involved in processing a permit application from initial pre-application coordination to permit issuance or denial. The responsibility for processing all bridge permit applications is at the District Commander organizational level.

1. Pre-application meetings between the Coast Guard, the applicant and any other interested federal, state or local agencies, to include the NEPA scoping process and consultation.
2. Receipt of the application by the Coast Guard.
3. Coast Guard review process:
 - a. Within 30 days of receipt of the application, Coast Guard District sends letter to applicant requesting any additional information, if required;
 - b. When application received is considered complete, Coast Guard District prepares public notice, coordination letters and Coast Guard Local Notice to Mariners;
 - c. Coast Guard issues public notice, coordination letters and Local Notice to Mariners;
 - d. Coast Guard review of comments:
 - 1) Applicant provided opportunity to respond to comments; and
 - 2) District holds scoping/coordination meetings and public hearings, if necessary.
 - e. Coast Guard findings and recommendations:
 - 1) Preparation of navigability documentation; and
 - 2) Preparation of environmental documentation.
4. Final Coast Guard agency action:
 - a. Coast Guard District action:
 - 1) Coast Guard District completes a full evaluation and prepares its Findings of Fact;
 - 2) Coast Guard District provides recommendation to issue or deny permit; and
 - 3) Coast Guard District either issues or denies a Coast Guard bridge permit. Bridge Program policy requires more complex permit applications, such as those which are highly controversial or which require an environmental assessment of environmental impact statement, be issued by Coast Guard Headquarters.
 - b. Coast Guard Headquarters final agency action:
 - 1) Review and full evaluation of proposed project (navigation and environmental); and
 - 2) Permit issuance or denial (as necessary).

GLOSSARY OF BRIDGE TERMS

1. **Abutment:** A substructure composed of stone, concrete, brick or timber supporting the ends of a single span bridge or the extreme end of a multi-span bridge. Usually it also supports the approach embankment.
2. **Advance Approval Waterways:** (Title 33, Code of Federal Regulations, Section 115.70, as amended): The Commandant, U.S. Coast Guard has given advance approval to the location and plans of bridges to be constructed across reaches of waterways navigable-in-law, but not actually navigated other than by logs, log rafts, rowboats, canoes and small motorboats. In such cases, the clearances provided for high water stages will be considered adequate to meet the reasonable needs of navigation. The term “small motorboats” shall be interpreted in light of the things and conditions with which it is associated. The term means rowboats, canoes, and other similar craft with outboard motors. It does not include sailing or cabin cruiser craft. The term is used to distinguish such craft from the definition of “motorboat” in the Motorboat Act of June 25, 1940 (46 U.S.C. 526), which includes craft up to 65 feet in length.
3. **Allision:** For Bridge Program terms, the violent impact of a movable object (vessel) striking a stationary object (bridge or/and bridge protective system).
4. **Alteration:** For Bridge Program terms, the structural changes, replacement, or removal of the bridge.
5. **Alteration of Bridge:** Any repairs, relocation, reconstruction, additions, or modifications to a bridge, which will change any of the information shown on the plans (permit drawings) attached to the Federal Bridge Permit is considered an alteration of the bridge and requires prior approval of the Coast Guard.
6. **“After-the-fact Permit”:** A permit designation for a bridge that is completed.
7. **Amendment:** For Bridge Program terms, a Coast Guard document that amends original bridge permit and is signed by District Commander or Administrator, Bridge Program.
8. **Approval Date:** The date of final agency action when the permit is signed by the approving official, the date the permit is issued. Each page of the permit text and attached plan set is stamped with the approval date and shows the permit number.
9. **APA:** The Administrative Procedure Act (APA) in 1946 established the basic framework of administrative law governing agency action, including rulemaking.
10. **Approval plan set:** Approved plans consecutively numbered as a set, part of the permit.
11. **Approved:** The term “approved” means approved by the Commandant unless otherwise stated.
12. **Appurtenance:** For Bridge Program terms, means an attachment or accessory to a bridge or vessel. Appurtenances on a bridge include the bridge protective system, clearance gauges, lighting, etc. An appurtenance on a vessel extends beyond the hull or

superstructure, is not an integral part of the vessel and is not needed for a vessel's piloting, propelling, controlling, or collision avoidance capabilities.

13. **Automated Drawbridge:** For Bridge Program terms, means a drawbridge that is operated by an automated mechanism, not a drawtender. An automated drawbridge is normally kept in the open-to-navigation position and closes when the mechanism is activated.
14. **Axis of the Channel:** An imaginary line representing the usual line of travel by a vessel through a bridge, usually the center marked by an arrangement of two green 360-degree lights suspended just below the outermost edges of the upstream and downstream bottom chords.
15. **Bank Cushion:** The distance or amount of space between a channel bank and a vessel considered necessary to minimize risk of vessel grounding as a result of bank suction.
16. **Bank Suction:** The tendency to force a ship bodily in a transverse direction (sway force) when running close to a channel bank. Usually the ship will tend to move toward a channel bank; thus the force is called bank suction.
17. **Bascule Bridge:** A bridge superstructure on which one or two movable roadway spans are counterbalanced by weights and raised from a horizontal position to almost vertical (open) position for the passage of river traffic.
18. **Base Flood:** A flood having a one percent change of being exceeded in any given year (commonly known as a 100-year flood).
19. **Base Floodplain:** The area adjacent to the waterway, which would be inundated by a base flood.
20. **Beam:** One of three principal dimensions of a ship; the width of a vessel in a transverse direction at its widest point, usually amidships.
21. **Bend:** A channel turn that is designed as a continuous curve with a given radius; usually provided for large channel changes (or turn angles) in direction. However, for bridge permit purposes, any bends in the waterway within one-half mile of the proposed bridge are documented regardless of the radius of the curve or size of the channel.
22. **Bent:** A supporting unit of a trestle or a viaduct type structure. A "bent" consists of two or more columns or column-like members connected at their topmost ends by a cap, strut, or other member holding them in their correct position.
23. **Body:** A series of paragraphs in the bridge permit document which identify the applicant, the work proposed and the work approved. The body precedes the conditions.
24. **Bow:** The forward part of a ship or vessel; generally the forward 10 percent of the length of the ship hull where most of the hull curvature (flare) is located.

25. **Bow and Stern Thrusters:** Independent propulsion units integrated into the hull of a vessel or attached to barges being transported that help control the direction and alignment of a vessel or tow.
26. **Bowboat:** A small towboat or “tug” engaged to help a large tow to maneuver, usually by pushing or pulling on the head or “bow” of the tow.
27. **Bridge:** Any structure over, on, or in navigable waters of the United States used for transporting persons, vehicles, commodities or other physical matter and providing for the passage or flow of water through or under the structure.
- a. The term “bridge” includes all integral bridge elements: approaches and appurtenances, regardless of the materials used, whether natural or manufactured, or the construction methodology.
 - b. Types of “bridges” include: highway bridges, railroad bridges, pedestrian bridges, aqueducts, aerial tramways and conveyors, overhead pipelines, and similar structures of the same function with their approaches, bridge protective systems, foundations, and appurtenances (integral features).
 - c. The definition of “bridges” does not include: aerial power transmission lines, submerged pipelines, and other similar structures and works unless they are integral features of a bridge used in its construction, maintenance, operation or removal; or they are affixed to the bridge and affect the bridge clearances.
28. **Bridge Permit:** An authorization issued by the Coast Guard, approving the location and plans of a bridge across a navigable waterway of the United States. A “bridge permit” includes the approved bridge project plans.
- a. A “bridge permit” expresses the assent of the Federal Government as far as the project affects the public right of navigation, giving due consideration to the impacts on the quality of the human environment.
 - b. A “bridge permit” does not give any property rights, in either real estate or materials, or authorize any injury to private property or invasion of private rights. It does not remove the necessity of obtaining the assent of other agencies with cognizance of any aspect of the location, construction, or maintenance of a bridge.
 - c. Permits for completed bridges remain valid indefinitely, unless otherwise conditioned or amended, as long as the bridge remains in place, continues to be used for transportation purposes, and conforms to the original approved plans.
29. **Bridge Protective System:** Protective structures provided on a bridge to fully or partially absorb the vessel collision impact forces, or redirect the aberrant vessel away from the pier. The protective structures may be located directly on the bridge such as bridge pier fenders, or independent of the bridge such as dolphins. General types of bridge protective systems

include fenders, pile clusters, dolphins, sheer booms, sheer fences, island protection systems, and floating protection systems.

30. **Canalized Channel:** A channel consisting of one or more canals; an excavated watercourse, usually artificially cut through land area, without any existing channel, designed for navigation. Canal edges or borders usually extend above the water surface with visible banks and have important ship and bank interaction effects.
31. **Categorically Excluded Federal Action:** Certain Bridge Permit actions under consideration by the Coast Guard are categorically excluded from meeting the requirements of the National Environmental Policy Act (NEPA) of 1969. Projects and permit actions classified as categorical exclusions are not subject to Section 102(2)(C) of NEPA. Although not subject to NEPA, categorically excluded actions are reviewed for compliance with the other environmental protection laws, and may require preparation of an environmental assessment.
32. **Causeway:** A raised road of solid fill across water or marshland, constructed so that the water or marshland is on both sides of the road and there are no openings for navigation or water transfer.
 - a. A raised road with any openings is a “bridge” with solid fill approaches, not a “causeway.”
 - b. Congressional approval is required before the Coast Guard may approve a “causeway.”
33. **Channel:** The deeper, navigable portion of a waterway, usually marked and designated on the appropriate navigation chart with known widths and depths.
34. **Channel Limit:** The location of the authorized channel as designated on project design documents and depicted on hydrographic survey sheets; often provided as a channel width on navigation charts.
35. **Clearance Gauges:** A series of markings painted on or attached to bridge piers to indicate the vertical clearance available beneath the navigation span between “low steel” and various water levels. They may also be authorized electronic displays serving the same purpose.
36. **Closed:** For Bridge Program terms, means that the drawspan is not in the open position. Vessels, which can pass beneath the “closed” drawspan, are free to proceed.
37. **Coast Guard District Commander or District Commander:** The term "Coast Guard District Commander" or "District Commander" means an officer of the Coast Guard designated as such by the Commandant to command all Coast Guard activities within his or her district.
38. **Cofferdam:** An open box-like structure surrounding the area where an abutment, pier, retaining wall, or other structure will be placed. Water is removed from the enclosure so the excavation for preparing a foundation and the abutment, pier, or other construction may be done in the open air.
39. **Commencement of Construction:** The date when work actually starts at the proposed bridge site, its approaches, or ancillary works is the commencement of construction.

40. **Completion of Construction** (as defined in completion reports): The Coast Guard considers construction completed when removal of falsework and removal of existing bridge is completed, the construction contract is completed, required navigation lights and clearance gauges have been installed, and the bridge has been opened to traffic or placed in operation.
41. **Completion Report:** CG-4599 Form documenting official pertinent facts of a bridge.
42. **Concave Bank:** The bank of a meandering stream curved like the inner surface of a ball.
43. **Condition:** A specific provision placed in the permit. Conditions are numbered as a set of permit provisions to which the permittee is required to adhere as part of Coast Guard approval.
44. **Controllability:** A subjective term used to describe the apparent adequacy of response to ship control by the mariner; the inherent quality of a ship to stay on track.
45. **Crosscurrent:** The magnitude of the tidal or river current component perpendicular to the channel centerline or intended ship track.
46. **Current:** A generic term referring to the horizontal movement of water caused by various forces such as river currents or tidal currents.
47. **Datum Plane:** Reference to a specified tidal datum, usually in reference to Mean Sea Level (MSL).
48. **Deep Draft Waterway:** Navigation channels (usually excavated as by dredging) provided for the movement of self-propelled vessels with drafts greater than 15 feet.
49. **Demolition Plan:** The start-to-finish plan expected to be followed to remove a bridge or any portion of a bridge. The demolition plan must include text and drawings (plans) submitted to the Coast Guard District Commander (Bridge Office) for review and coordination prior to commencement of work. It should include a step-by-step description of the work and the expected times for commencing and completing each step.
50. **Descending Bank:** A generic term referring to the banks along a river with a flowing current; often referred to as left or right descending banks as seen by an observer looking downstream.
51. **Design-Build:** Allows for a bridge permit to be issued prior to final bridge design selection. Bridge permits can accommodate the design-build concept by allowing the bridge owner to obtain bids and select a design-build contractor while assuring the Coast Guard will get a set of final design plans which provide navigational clearances approved by the permit. Conceptual plans must be submitted with the permit application which clearly defines the navigational clearances to be provided at final design and with respect to channels located at the bridge location. There must be no deviation between conceptual design plans and final design plans which would materially affect navigation.

52. **Design Vessel (Ship):** A real or hypothetical ship with dimensions of the largest vessel that a navigation project is designed to accommodate. The design vessel size for critical bridges shall be determined such that the annual number of vessel passages that involved vessels larger than the design vessel amounts to a maximum of 50 vessel passages, or five percent of the total number of merchant vessels per year which could impact the bridge element, whichever is smaller. The design vessel size for regular bridges shall be determined such that the annual number of vessel passages that involve vessels larger than the design vessel amounts to a maximum of 200 vessel passages or ten percent of the total number of merchant vessels per year which could impact the bridge element, whichever is smaller.
53. **Deviation:** For Bridge Program terms, means a District Commander’s action authorizing a drawbridge owner to temporarily not comply with the drawbridge opening requirements in 33 CFR Part 117. A temporary change to the operating schedule of a drawbridge lasting less than or equal to 180 days; bridge owners must receive permission before commencement of a deviation.
54. **Docket:** A docket contains the administrative record of a rulemaking. The docket file includes each regulatory document published in the rulemaking, all public comments received on the notice of proposed rulemaking (NPRM), documentation of all public contacts resulting in comments on the merits of the NPRM, the evaluations required by the Department of Homeland Security, Executive Orders, or statute, an environmental assessment, and any relevant studies and materials considered in the rulemaking. The docket must be available for public inspection and copying during normal business hours.
55. **Docket Number:** Each rulemaking must have its own docket number. All Coast Guard rulemakings are assigned unique docket numbers provided via the Federal Docket Management System (FDMS). Docket numbers are obtained through the Coast Guard Office of Regulations in this format: Example USCG-2011-1234
56. **Dolphin:** A stand-alone unit placed upstream or downstream of a substructure element to protect portions of bridge exposed to possible damage from impacts by floating debris or vessels. Smaller dolphins are comprised of a cluster of piles drawn together with wire rope while larger dolphins are typically fixed together using concrete capping or a structural steel frame.
57. **Disclaimer Condition:** A standard condition in the permit alerting the permittee to his possible obligations to other agencies.
58. **Drawbridge:** For Bridge Program terms, means a bridge with an operational span that is intended to be opened for the passage of waterway traffic.
59. **Drawbridge Operation:** Drawbridges must open on signal unless otherwise specified in 33 CFR Part 117 subpart B.
60. **Drawbridge Types:**
- a. **Double-leaf Bascule:** The drawspan opens in an arc from the horizontal to the near vertical from both sides of the bridge.

- b. **Pontoon:** A floating bridge, using "pontoons" (i.e., flat-bottomed boats or portable floats) for support that has a movable span for allowing vessels to pass through.
 - c. **Retractable:** The drawspan is drawn horizontally back into the bridge.
 - d. **Single-leaf Bascule:** The drawspan opens in an arc from the horizontal to the near vertical from one side of the bridge.
 - e. **Swing:** The drawspan opens by rotating horizontally on a central axis (i.e., a pivot pier) so it is in line with the channel.
 - f. **Vertical Lift:** The drawspan opens by being lifted vertically.
61. **Drawspan:** For Bridge Program terms, means the operational span of a drawbridge.
 62. **Drift:** A bank or pile of flotsam/jetsam heaped up by currents of water resulting in damming.
 63. **Ebb Current:** The tidal current away from shore and toward the sea; usually downstream in a tidal stream and associated with a decrease in tide height.
 64. **Elevation (geographical):** Height above Mean Sea Level (MSL).
 65. **Encroachment:** Bridge construction or modification where any part of a bridge structure or approach roadway is located in the floodplain. An “encroachment” does not exist in replacement projects when only the piers, pilings, or pile bents are in the floodplain.
 66. **Environmental Assessment:** An analysis of the environmental impacts of a proposed activity that identifies the type, degree of effect, and probability of occurrence respecting primary, secondary and cumulative potential impacts (positive and negative) of that action, including alternative courses of action and if possible mitigative measures to minimize adverse impacts. Environmental assessments in support of application for bridge permits should be prepared following the guidelines in the Bridge Permit Application Guide.
 67. **Erection Scheme:** The start-to-finish plan expected to be followed to erect a bridge or any portion of a bridge. The erection scheme should accompany falsework plans submitted to the Coast Guard District Commander for approval prior to commencement of work. It should include a step-by-step description of the work and the expected times for commencing and completing each step.
 68. **Existing Bridge:** Bridge currently located at the site.
 69. **Existing to-be-modified bridge:** The structure at the bridge site which is to be altered under the proposed permit action.
 70. **Existing to-be-replaced bridge:** The structure at the bridge site which is to be removed as part of the new bridge construction.
 71. **Extension of Time:** For Bridge Program terms, a Coast Guard document that grants additional time to commence and/or complete a bridge project.
 72. **Falsework:** Any temporary structure that facilitates the construction, modification, or removal of a bridge. Types of “falsework” include: work platforms, temporary bents, erection towers, and cofferdams.

73. **FDMS:** Federal Docket Management System (FDMS) offers a single computerized, easily accessible location where all documents associated with a rulemaking are open to the public.
74. **Federal Register:** The Federal Register is a Government Printing Office document that contains a daily listing of all federal agency rulemakings and notices. Publication in the Federal Register provides constructive legal notice.
75. **Fender:** A protective structure that usually consists of timber, rubber, steel or concrete elements placed on or around a pier or abutment face as a buffer to fully or partially protect portions of bridge exposed to possible damages from impacts by floating debris or vessels. A fender may be supported by the pier it is intended to protect, or it may be independently supported.
76. **Final Rule:** The basic rulemaking document used to make a permanent change to the Code of Federal Regulations.
77. **Fixed Bridge:** For Bridge Program terms, a stationary structure across a waterway.
78. **Flanking:** The maneuvering action of a downbound tow (towboat and barges) sometimes used when approaching bridge, locks, or sharp bends. The current only is used for headway and the engines and rudders are used to maintain the proper angle until just before the lead barge reaches the bridge span, at which time the engines are backed and the head of the tow is swung gently in line with the opening. Then power is applied to drive through the opening. This is the safest way a heavy tow can make tight passages. Flanking often increases the transit time through a bridge.
79. **Floating Protection System:** It is usually consisted of cable net system suspended across the waterway or floating pontoon anchored in front of the pier to engage and capture the bow of an aberrant vessel. Usually this system is considered only for extremely deep water situations where other protective systems are not practicable.
80. **Flood Current:** The tidal current toward shore or up a tidal stream; usually associated with an increase in tide height.
81. **FOIA:** Freedom of Information Act (FOIA). Enacted in 1966, FOIA generally provides that any person has a right, enforceable in court, to obtain access to federal agency records (exceptions apply).
82. **Guide Clearances:** Guide clearances have been established for bridges over certain waterways. Guide clearances are the minimum acceptable clearances for bridges over a waterway or a reach of a waterway.
83. **High Water (HW):** The maximum height reached by a rising tide.
84. **Intended Strike:** Incidence where a vessel calls a bridge and requests and receives permission to land on the bridge or its protection system. Such strikes are used to “guide” or

“assist” a vessel or barge through a narrow bridge opening. Since these “Intended Strikes” do little to no damage, they do not meet the level of a reportable marine casualty.

85. **Island Protection System:** A protective island built around a bridge pier; typically a sand or quarry-run rock core protected by outer layers of heavy rock riprap for wave, current, and ice protection. The island geometry is developed to stop an aberrant vessel from hitting a pier by forcing it to run ground.
86. **Lead Federal Agency (LFA):** The federal agency with the primary responsibility to prepare the NEPA document.
87. **Local Notice to Mariners:** A weekly notice issued by each Coast Guard District to distribute important information affecting navigational safety within the district. The “Local Notice to Mariners” (LNM) reports changes to and deficiencies in aids to navigation maintained by and under the authority of the Coast Guard.
88. **Low Member (Low Steel, Low Chord):** That point on a bridge which is the lowest part of the superstructure.
89. **Lowerable:** For Bridge Program terms, means a non-structural vessel appurtenance that is or can be made flexible, hinged, collapsible, or telescopic so that it can be mechanically or manually lowered.
90. **Maneuverability:** The ability of a ship to change course or to move off track while underway by the application of steering and engine controllers.
91. **Maintenance of Traffic (MOT) Plan:** A MOT plan developed in support of a transportation project; may include highway, rail and waterway traffic alternatives to be employed while building a road or bridge project.
92. **Margin of Channel:** The outside limits of a channel when it does not extend from pier to pier because of the depth of the water or structural impediments. The margin(s) of channel beneath a bridge span are usually marked with red lights suspended just below the outermost edge of the bridge span structure.
93. **Marine Information for Safety and Law Enforcement (MISLE):** An electronic data system established in December 2001 into which all pertinent information and activities associated with each bridge is located. MISLE is also utilized to capture activities for many other Coast Guard missions.
94. **Marine Navigational Lighting:** The lights maintained on a bridge for the protection of marine navigation.
95. **Mean High Water (MHW):** The average of the height of the diurnal high waters at a particular location measured over a lunar cycle of 19 years.
96. **Mean Low Water (MLW):** The average of the height of diurnal low waters at a location measured over a lunar cycle of 19 years.

97. **Mean Sea Level (MSL):** The average height of the sea surface for all tide stages over a 19-year period. The datum for topographic maps and most land elevation references.
98. **Meandering Stream:** A stream that follows a turning and winding course.
99. **Milepoint:** Bridge location by reference to milepoint on the waterway, usually calculated from the mouth of the waterway and expressed in statute miles (not nautical miles) and metric equivalent in kilometers. See also item j, Figure 4-1, Form CG-4599, Bridge Completion Report instructions.
100. **Modification:** A bridge is modified when the configuration of the existing bridge is changed by adding new parts or replacing some parts of the existing bridge, and some parts of the existing bridge remain intact.
101. **Modifications to the Bridge:** Deviations from the approved bridge location or plans that require a new or amended bridge permit. This requirement applies to “modifications” required both before and after the bridge is constructed.
102. **Movable Bridge:** A structure across a waterway that through manual or electronic means can ‘open’ deck to allow for passage of vessels requiring greater vertical clearance than in the closed position.
103. **Navigability Determination:** For Bridge Program terms, means an examination of the attributes and location of a waterway to determine whether it is navigable (generally through the district legal officer).
104. **Nautical Mile:** A distance of 6,076 feet, or 1.85197 kilometers.
105. **Navigable Waters of the United States:** For Bridge Program purposes: waters subject to tidal influence, waterways with a history of substantial commercial navigation, waterways that presently have commercial navigation, or waterways susceptible to commercial development.
106. **Navigation:** The theory and practice of operating vessels, usually commercial vessels, in water bodies, charting the course for a ship movement.
107. **Navigation Traffic Pattern:** The use of established channels by vessels in one-way and two-way traffic patterns, including, but not limited to, the use of traffic separation schemes.
108. **Navigational Lighting:** The lights installed and maintained on a bridge by the owner as private aids to navigation. If lighting is required, the Coast Guard District Commander must approve “navigational lighting” prior to the construction of a bridge.
109. **New Permanent Bridge:** A newly constructed bridge which is to remain at a site where a temporary bridge is constructed as part of the bridge project.
110. **Nonstructural:** For Bridge Program terms, means that the item is not rigidly fixed to the vessel and can be relocated or altered.

111. **Notices to Mariners:** Coast Guard District Offices issue Notices to Mariners as circumstances prescribe. These notices include information about changes or deficiencies in aids to navigation, deficiencies in bridge navigation lights, notices of work in progress in the waterway and cautionary information. Written notices, called Local Notices to Mariners, are published weekly or as circumstances require. Broadcast notices are made when immediate dissemination of marine information is necessary for the safety of navigation. Broadcast Notices to Mariners are broadcast over Coast Guard radio stations. Broadcast notices are later confirmed by repetition in published Local Notices to Mariners when the original subject is still valid.
112. **Not Essential to Navigation:** For Bridge Program terms, means that a nonstructural vessel appurtenance, when in the lowered position, would not adversely affect the vessel's piloting, propulsion, control, or collision-avoidance capabilities.
113. **Normal Pool Elevation:** Height in feet above sea level at which a section of the river is normally maintained behind a dam.
114. **NPRM:** Notice of Proposed Rulemaking (NPRM) is usually the first Federal Register publication in the rulemaking process. This document provides public notice that a change is being proposed and it requests public comment on the proposal. The NPRM does not change the operating schedule of the bridge or the regulations contained in the CFR.
115. **Open River:** Any river or reach of a river having no obstructions, such as dams.
116. **Open River Conditions:** Certain rivers are impounded by movable dams with wickets. When the river stage is high enough for traffic to clear the dam, the wickets are lowered for the passage of river traffic over the dam bypassing the lock and the river is said to be in "open river conditions."
117. **Order to Alter (OTA):** Authorization signed by the Commandant if a bridge is eligible for funding under the Truman-Hobbs (T-H) Act. The OTA specifies the navigational clearance alterations required to meet the reasonable needs of navigation. The OTA amends the 'Bridge Permit' document. If the bridge in question is not eligible for T-H funding, the OTA, signed by the Administrator, Bridge Program, will specify the navigational clearance alterations required to meet the reasonable needs of navigation and will prescribe a reasonable time to accomplish them.
118. **Pier:** A structure composed of stone, concrete, brick, steel, or wood built in shaft or block-like form to support the ends of the spans of a multi-span superstructure at an intermediate location between its abutments.
119. **Pile:** A rod or shaft-like linear member of timber, steel, concrete, or composite materials driven into the earth to carry structure loads through weak soil strata to soil strata capable of supporting such loads.
120. **Pivot Point:** The point about which a ship actually turns. The pivot point varies as the ship is maneuvered and depends on all forces and movements acting on the ship.

121. **Preamble:** A series of paragraphs in the bridge permit document which states its purpose and authorizations, and introductory information. The preamble precedes the permit body.
122. **Proposed Bridge:** The permitted bridge as identified in a permit action. Use "proposed permanent bridge" when a temporary bridge is included in the permit action.
123. **Protection Cell:** A steel sheet-piling cell, usually round and filled with stone, sand, or concrete, that is part of the bridge protective system. The cell is strategically located to protect a bridge.
124. **Public Notice:** Coast Guard District published document advising the public of proposed bridge projects, environmental or regulatory actions. Mailing lists of public notices are distributed by watershed and geographic locations.
125. **Public Vessel:** For Bridge Program terms, means a vessel that is owned and operated by the United States Government or a government of a foreign country and is not engaged in commercial service, as defined in 46 U.S.C. 2101.
126. **Riprap:** Brick bats, stones, concrete blocks, or other protective covering material deposited on river and stream beds and banks, or lake, tidal or other shores to prevent erosion and scour.
127. **RIN:** Regulatory Identification Number (RIN). Generally each individual rule needs a unique RIN. However, because the Coast Guard publishes so many of the same types of rules every year, GSA and OMB's Office of Information and Regulatory Affairs have designated certain categories of rules as "routine and frequent" and assigned permanent RINs for them. The permanent RIN for 33 CFR Part 117 (Bridges) is 1625-AA09.
128. **Remotely Operated drawbridge:** For Bridge Program terms, means a drawbridge that is operated by remote control from a location away from the drawbridge.
129. **Removable Span Bridge:** For Bridge Program terms, means a bridge that requires the complete removal of a span by means other than machinery installed on the bridge to open the bridge to navigation.
130. **Shallow-draft Waterways:** Navigation channels provided for the movement of self-propelled vessels with drafts of 15 feet or less.
131. **Shallow Water:** A descriptive term to characterize navigation in waterways where the depth of water is shallow enough to cause significant ship hydrodynamic responses.
132. **Sheerboom:** A longitudinal structural elements generally positioned at a small angle to the direction of steam flow, placed to protect portions of bridge exposed to possible damage from impacts by floating debris or vessels. Sheer booms are generally positioned and anchored to accommodate fluctuations in water level and deflect the debris or vessel past the bridge substructure.
133. **Sheerfence:** Usually a timber fence that extends from a protective system element to or past a bridge pier to protect portions of bridge exposed to possible damage from impacts by floating debris or vessels and facilitates navigation through a span.

134. **Special Condition:** A provision in a bridge permit stating the permittee's obligations relating to a certain issue not normally existing in every bridge permit.
135. **Standard condition:** A provision in a permit stating the permittee's obligation to a situation common to all bridge projects with only minor adjustments.
136. **Standard Datums:** (For datums not listed, please contact the local Coast Guard District for assistance.)
- a. **High Water (HW):** The maximum height reached by a rising tide.
 - b. **International Great Lakes Datum (IGLD):** Height, in feet, above Low Water Datum (LWD) at a location in the Great Lakes basin.
 - c. **Mean High Water (MHW):** The average of the height of diurnal high waters at a particular location measured over a period of 19 years.
 - d. **Mean Low Water (MLW):** The average of the height of diurnal low waters at a location measured over a period of 19 years.
 - e. **Mean Sea Level (MSL):** The average height of the surface of the sea for all stages of the tide over a 19-year period. The datum for topographic maps and most land elevation references.
 - f. **Normal Pool Elevation:** Height in feet above sea level at which a section of the river is to be maintained behind a dam (impoundment design elevation).
 - g. **Two-Percent Flowline:** The statistical water surface elevation not expected to be exceeded more than two percent of the time at a particular location.
137. **Statute Mile:** A distance of 5,280 feet, equivalent to 1.60935 kilometers.
138. **Superstructure:** The structure of a bridge above the piers.
139. **Swept Path:** A single trace of the path of the extremities of the vessel platform as it makes its track while it transits the waterway. Account is taken of drift, drift angle and yaw.
140. **Temporary Bridge:** A temporary bridge is one constructed for a specific temporary purpose and is required to be removed by a certain time. There are temporary bridges but no temporary permits.
141. **Template:** A series of guides available to assist district bridge offices in drafting deviations and regulations. Bridge templates contain specific terminology used by the Bridge Program to ensure that all necessary sections of the rule have been addressed; available in Coast Guard intranet.
142. **Tidal Currents:** The reversing horizontal movement of water associated with the rise and fall of the tide caused by astronomical tide-producing forces.
143. **Tow (Noun):** An assembly of barges or other floating vessels being towed (pushed or pulled) by a self-propelled vessel (towboat) and under the charge of the vessel (towboat). A “tow” may be a towboat and one or more barges.
144. **Tow (Verb):** On the inland waterway system the verb “tow” usually means pushing barges.
145. **Towboat:** On the inland waterway system the word “towboat” usually means a self-propelled vessel designed to push barges. Small towboats are often called “switchboats.”
146. **Track:** A trace or trajectory of the path of a vessel as it makes its transit of a waterway. A vessel’s line of travel or course made good.

147. **Trench Channel:** Dredged or open-type restricted channels, intermediate between canals and shallow water, with submerged banks on each side, usually provided with range markers and channel edge buoys or beacons.
148. **Untended:** For Bridge Program terms, means that there is no drawtender at the drawbridge.
149. **Unused Bridge:** For Bridge Program terms, means any bridge no longer used for a land transportation purpose.
150. **Vertical Lift Bridge:** For Bridge Program terms, the drawspan opens by being lifted vertically.
151. **Vessel:** A general term referring to all types of self-propelled watercraft including ships, towboats, barges, tugs, yachts, and small boats.
152. **Yaw:** A nautical term to describe when a vessel swerves sideways or off course momentarily or temporarily.
153. **100-Year Flood:** The water surface elevation with a one-percent chance of being exceeded in any given year, commonly known as a base flood.