DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET
CINCINNATI, OH 45202-3222

21 December 2012

CELRD-PDO

MEMORANDUM FOR Commander, U.S. Army Engineer District, Huntington, Attention, Amy Jo Riffee (CELRH-EC-Q), Huntington District, Corps of Engineers, 502 Eighth Street, Huntington, WV 25701

SUBJECT: Review Plan for Grundy, Virginia, Section 202 Nonstructural Flood Damage Reduction Project

1. The attached Review Plan (RP) for Grundy, Virginia, Section 202 Nonstructural Flood Damage Reduction Project was presented to the Great Lakes and Ohio River Division for approval in accordance with EC 1165-2-209 "Civil Works Review" dated 31 January 2010.

2. The project is located in Grundy the county seat of Buchanan County, which is located in the southwestern portion of Virginia. The total land area in Grundy encompasses 4.98 square miles. The population of Grundy was 1021 in 2010.

3. The Grundy, VA Project Area has been subject to repeated flooding since its establishment in the late 1850s. In April 1977, the flood of record (a 100-year flood event) for the project area devastated the town of Grundy causing the death of three people and millions of dollars in damages.

4. In direct response to the 1977 flood, Congress passed the Energy and Water Development Appropriations Act of 1981 (PL 96-367). This act authorized the development of flood-protection measures for the Levisa and Tug Forks of the Big Sandy River Basin. Section 202 of this legislation directed the Secretary of the Army to initiate design and construction of flood damage reduction measures in those areas affected by the 1977 flood. Further, Section 105 of PL 104-206 (September 1996) added that "nonstructural flood control measures implemented under Section 202 of PL 96-367 shall prevent future losses that would occur from a flood equal in magnitude to the April 1977 flood by providing protection from the April 1977 flood level or the 100-year frequency event, whichever is greater."

5. The District evaluated several structural and nonstructural alternatives to reduce flood damages for the project area. All structural measures were eliminated. The District then pursued the development of nonstructural alternatives which would provide flood protection. The Directorate of Civil Works approved the final Detailed Project Report (DPR) and the DPR addendum on 3 May 1995.

a. The current status of each project feature is:

(1) **Floodproofing**. Twenty-two structures were flood proofed within the project area. Several others are in various stages as flood proofing of individual structures is ongoing.

(2) **Permanent floodplain evacuation**. Twenty structures were acquired and removed from the floodplain within the project area. Acquisition of individual structures is ongoing.

(3) **Ringwall/Levee**. Construction of the ringwall by CELRH and the highway/levee by VDOT is complete. No other work is planned for this project component.

(4) **Redevelopment Site**. Construction of the redevelopment is complete. This work included railroad relocation and construction of a highway access bridge and a pedestrian bridge. No other work is planned for this project component.

(5) **School Relocation**. Grundy Junior High School was closed and is now the Appalachian School of Law. The adjacent P.V. Dennis Elementary also closed and the building is now the law school's library. No other work is planned for this project component.

(6) **Relocation of Town Agencies**. Construction of the relocated fire station was completed by CELRH. Relocation of the police station by the Town should be completed in 2013. Police station relocation is being performed under a relocation contract between the Town and CELRH.

6. The RP defines the scope and level of peer review for the activities to be performed for the subject project. The USACE LRD Review Management Organization (RMO) has reviewed the attached RP and concurs that it describes the scope of review for work phases and addresses all appropriate levels of review consistent with the requirements described in EC 1165-2-209.

7. I concur with the recommendations of the RMO and approve the enclosed RP for Grundy, Virginia Section 202 Nonstructural Flood Damage Reduction Project.

8. The District is requested to post the RP to its website. Prior to posting, the name of all individuals indentified in the RP should be removed and approve the enclosed RP for the Buchanan County, VA, Section 202 Nonstructural Flood Damage Reduction Project.

9. The District is requested to post the RP to its website. Prior to posting, the names of all individuals identified in the RP should be removed.

10. If you have any questions please contact Dr. Hank Jarboe, CELRD-PDP, at (513) 684-6050.

Margaret W. Burcham
MARGARET W. BURCHAM
Brigadier General, USA
Commanding

Encls
1. Memo from John Bock, 15 November 2012
2. Review Plan

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WV 25701

REPLY TO
ATTENTION OF

CELRH-EC

27 November 2012

Memorandum For CELRD-PDS-H (Robert Iseli), Great Lakes & Ohio River Division, 550 Main Street #10032, Cincinnati OH 45202-3222

SUBJECT: Review Plan for Grundy, Virginia, Section 202 Nonstructural Flood Damage Reduction Project

1. In Accordance with EC 1165-2-209, attached is the initial submission of the Review Plan for Grundy, Virginia, Section 202 Nonstructural Flood Damage Reduction Project for your approval. The review plan does not include Agency Technical Review (ATR) outside of the District because ATR was not required when the DDR and P&S were developed; Independent Technical Review (ITR) was performed at that time. Independent External Peer Review (IEPR) is not recommended for the remaining components of the Grundy project since they are nonstructural in nature and there are no downstream life safety impacts imposed by the remaining components.

2. Please direct any question or comments to Amy Jo Riffee at 304-399-5544. After your approval, the Review Plan will be posted to the CELRH Intranet.

for Margaret Wilson

Encl

JOHN R. BOCK, P.E.
Chief, Engineering and Construction Division
Huntington District Dam Safety Officer

CF:
CELRH-EC-Q
CELRH-PM-PP-P

REVIEW PLAN

GRUNDY, VIRGINIA
SECTION 202 NONSTRUCTURAL
FLOOD DAMAGE REDUCTION PROJECT

Design and Construction Activities

Huntington District

MSC Approval Date: *Pending*
Last Revision Date: *None*

US Army Corps
of Engineers ®

REVIEW PLAN

GRUNDY, VIRGINIA
SECTION 202 NONSTRUCTURAL
FLOOD DAMAGE REDUCTION PROJECT
Design and Construction Activities

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS 3
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION 3
3. PROJECT INFORMATION 4
4. DISTRICT QUALITY CONTROL (DQC) 6
5. AGENCY TECHNICAL REVIEW (ATR) 7
6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR) 8
7. POLICY AND LEGAL COMPLIANCE REVIEW 9
8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION 9
9. REVIEW SCHEDULES AND COSTS 10
10. PUBLIC PARTICIPATION 10
11. REVIEW PLAN APPROVAL AND UPDATES 10
12. REVIEW PLAN POINTS OF CONTACT 11

ATTACHMENT 1: TEAM ROSTERS 12
ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW 14
ATTACHMENT 3: REVIEW PLAN REVISIONS 15
ATTACHMENT 4: COMPLETED ATR REVIEW REPORTS 16

1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan (RP) defines the scope and level of peer review for the remaining design and construction activities to be performed for the Grundy, Virginia, Section 202 Nonstructural Flood Damage Reduction Project. These are primarily floodproofing and acquisition of individual structures. It does not address project components that have already been constructed, such as the redevelopment site, ringwall, access bridge, and pedestrian bridge. The general location of Grundy is shown in Figure 1 below.

Figure 1 – General location of Grundy, Virginia

b. **References**

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010.
(2) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006.
(3) ER 1105-2-100, Planning Guidance Notebook, 22 April 2000.
(4) Grundy, Section 202 Nonstructural, Flood Damage Reduction Project, Project Management Plan.
(5) Grundy Nonstructural Project, Detailed Project Report, Appendix O, Section 202 General Plan, Aug 1993.

c. **Requirements.** This RP was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation. The EC outlines four general levels of review: District Quality Control (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this RP. The RMO for implementation documents is typically either a Major Subordinate Command (MSC) or the Risk Management Center (RMC). The RMO for the peer review effort described in this RP is the Great Lakes and Ohio River Division (LRD).

The RMO will coordinate with the Cost Engineering DX to ensure the appropriate expertise is included on the ATR teams to assess the adequacy of cost estimates, construction schedules, and contingencies.

The Flood Risk Management Planning Center of Expertise (PCX), Ecosystem Restoration PCX, and the Cost Engineering Directory of Expertise (DX) were not involved in the development or review of the Detailed Project Report (DPR). The DPR was completed in 1993, prior to the requirements for PCX and DX involvement. Since this RP is for the design and construction activities, the Flood Risk Management PCX, and Ecosystem Restoration PCX will not review this RP.

3. PROJECT INFORMATION

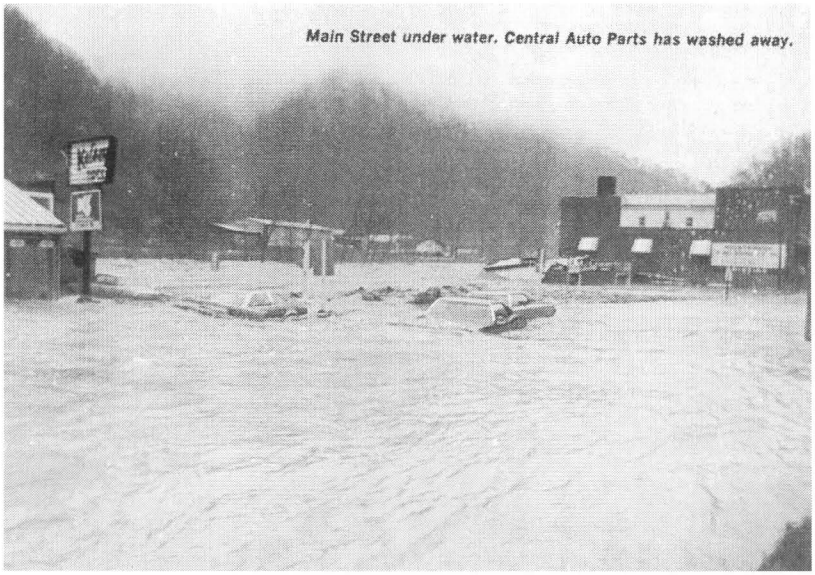
a. **Floodproofing- and Acquisition-Related Documents.** For the Grundy Section 202 Nonstructural Flood Risk Management Project in Grundy, Virginia, the only remaining work pertains to floodproofing or acquisition of individual residential or commercial structures located in the floodplain within project limits. Only DQC will be performed for documents prepared for these efforts, as described in this RP.

b. **Project Description.** Grundy is the county seat of Buchanan County. Buchanan County is located in the southwestern portion of Virginia. It is bordered by Dickenson County, Virginia to the southwest; Russell County, Virginia, to the south; Tazewell County, Virginia to the southeast; McDowell County, West Virginia to the northeast; Mingo County, West Virginia to the north; and Pike County, Kentucky to the northwest. The total land area in Grundy encompasses 4.98 square miles. The population of Grundy was 1,021 in 2010.

   The Grundy Project Area has been subject to repeated flooding since its establishment in the late 1850s. In April 1977, the flood of record (a 100-year flood event) for the project area devastated the Town of Grundy causing the death of three people and millions of dollars in damages. As a direct result of this flood and resultant losses at Grundy and other communities throughout Appalachian counties impacted by this event, Section 202 of the Energy and Water Development Appropriations Act of 1981 (Public Law 96-367) provided specific authorization for development of flood protection measures at Grundy.

   Emergency and recovery costs from the recurring flooding drain the already limited county and state revenues. Loss of structures and businesses due to flooding erodes the meager tax base of the county, making recovery more difficult with each event. In addition to the severe financial losses incurred due to the frequent flooding in the area, there is an adverse psychological effect on the population. The prospect of future flooding discourages proper maintenance and repair of structures. This in turn causes early deterioration of dwellings and business structures and accounts for a large number of floodplain structures.

   The nonstructural measures selected for the project area included floodproofing, permanent floodplain evacuation, a ringwall/levee, a redevelopment site, school relocation, and relocation of town departments. These measures have proven to be very effective flood damage reduction measures in areas where scattered and low-density flood prone development prevails over extensive reaches of the floodplain, such as found in the project area. These measures have been effectively implemented by the U.S. Army Corps of Engineers (USACE), Huntington District (CELRH) in the Tug Fork areas of Williamson, Matewan, Upper Mingo County, Lower Mingo County, Wayne County, and McDowell County, West Virginia; and Martin, South Williamson, Martin County, and Pike County, Kentucky.



Grundy Main Street during April 1977 flood

In a direct response to the 1977 flood, Congress passed the Energy and Water Development Appropriations Act of 1981 (PL 96-367). This act authorized the development of flood-protection measures for the Levisa and Tug Forks of the Big Sandy River Basin. Section 202 of this legislation directed the Secretary of the Army to initiate design and construction of flood damage reduction measures in those areas affected by the 1977 flood. Further, Section 105 of PL 104-206 (September 1996) added that "nonstructural flood control measures implemented under Section 202 of PL 96-367 shall prevent future losses that would occur from a flood equal in magnitude to the April 1977 flood by providing protection from the April 1977 flood level or the 100-year frequency event, whichever is greater."

The District evaluated several structural and nonstructural alternatives to reduce flood damages for the project area. All structural measures were eliminated due to excessive costs and insufficient flood damage reductions in the project area. The District then pursued the development of nonstructural alternatives which would provide flood protection to the project area. During the plan formulation process , the District became aware of the Virginia Department of Transportation' s (VDOT) plans for upgrade of U.S. Route 460 in the project area. The two agencies began coordination efforts to determine the amount of overlap between the two projects and to investigate the opportunity of combining both projects to reduce overall project costs.

As the result of the coordination efforts, the District developed the most cost-effective, implementable plan for the project area. The components of the joint project include floodproofing and floodplain evacuation in the upstream, downstream, and Slate Creek reaches. A unique flood protection plan was developed for the Central Business District (CBD) , which was further divided into three subreaches: Areas A, B, and C. The plan for the CBD consisted of a ringwall around Area B tied into an elevated section of highway embankment modified to act as a levee; relocation of the town fire station to a floodsafe site; and the preparation of an affordable floodsafe, community redevelopment site in Area C. The VDOT component of the project consisted of the acquisition and

demolition of all structures required for the upgrade of U.S. Route 460 from two lanes to four lanes, including flood-prone structures in the upstream and Area A reaches of the project area; relocation of two bridges; and the construction of highway elevated to the 100-year flood elevation.

These project components are further described in the Detailed Project Report (DPR), which was completed in August 1993. The DPR was completed before the requirement for Independent Technical Review (ITR) was implemented. The Directorate of Civil Works approved the DPR and the DPR addendum on 3 May 1995.

The following paragraphs indicate the current status of each project feature at the time of preparation of this RP:

(1) **Floodproofing.** Twenty-two structures have been floodproofed within the project area. Several others are in various stages as floodproofing of individual structures is ongoing.
(2) **Permanent floodplain evacuation.** Twenty structures have been acquired and removed from the floodplain within the project area. Acquisition of individual structures is ongoing.
(3) **Ringwall/Levee.** Construction of the ringwall by CELRH and the highway/levee by VDOT has been completed. No other work is planned for this project component.
(4) **Redevelopment Site.** Construction of the redevelopment have been completed. This work included railroad relocation and construction of a highway access bridge and a pedestrian bridge. No other work is planned for this project component.
(5) **School Relocation.** Grundy Junior High School was closed and is now the Appalachian School of Law. The adjacent P.V. Dennis Elementary also closed and the building is now the law school's library. No other work is planned for this project component.
(6) **Relocation of Town Agencies.** Construction of the relocated fire station was completed by CELRH. Relocation of the police station by the Town should be completed in 2013. Police station relocation is being performed under a relocation contract between the Town and CELRH.

c. Factors Affecting the Scope and Level of Review.

The Grundy project is a nonstructural project and remaining components of the project do not include any impoundments, floodwalls, or levees. From a life safety perspective, there is minimum risk. Raising-in-place of structures is not challenging, from a design perspective. This project is a nonstructural project and the threat to human life is not significant.

d. In-Kind Contributions. Products and analyses provided by Non-Federal Sponsors as in-kind services are subject to DQC, ATR, and IEPR. There are no in-kind services anticipated as part of the cost share. The projected total project cost exceeds $130 million. To date, the Town of Grundy has received $33.4 million in credit for lands, easements, rights-of-way, relocation, and disposals (LERRDs).

4. DISTRICT QUALITY CONTROL (DQC)

All implementation documents shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). CELRH shall manage DQC. Documentation of DQC activities is required and shall be in accordance with the Quality Manual of the District and LRD as managed in Qualtrax.

DQC is completed in accordance with the LRD Regional Business Processes Manual (the Region's Quality Management Plan). The LRD Regional Business Processes Manual is an ISO 9001 certified Quality Management System. DQC includes Quality Production, Internal Quality Checks and Reviews, Design Checks, and Project Delivery Team (PDT) Reviews as described in procedure 08504 LRD - QC / QA Procedures for Civil Works.

a. **Documentation of DQC.** In accordance with 08504 LRD - QC / QA Procedures for Civil Works, all drawings, computations, quantity estimates, and analyses provided to the DQC team for review will be annotated to show the initials of the designer and the checker and the date of the action.

b. **Products to Undergo DQC.** Any Detailed Design Reports (DDRs) and Plans & Specifications (P&S) would undergo DQC in accordance with 08504 LRD - QC / QA Procedures for Civil Works.

c. **Required DQC Expertise.** In accordance with 08504 LRD - QC / QA Procedures for Civil Works, anyone conducting design checks and reviews will be qualified to originate the design that they are checking. The disciplines involved in the DQC review will depend on the project feature being designed but will generally follow those presented in Table 2 of Attachment 1.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all implementation documents per EC 1165-2-209 (note that DDRs and P&S produced before the implementation of EC 1165-2-209, 31 January 2010, underwent Independent Technical Review (ITR) in accordance with the quality control requirements in effect at the time). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published U.S. Army Corps of Engineers (USACE) guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC.

a. **Products to Undergo ATR.**
   (1) **Floodproofing.** USACE does not prepare P&S for raising-in-place of individual structures. General guide plans are prepared and provided to participating landowners who hire their own contractors to accomplish the necessary work. Neither the general guide plans nor the homeowner-acquired plans will undergo ATR.
   (2) **Permanent floodplain evacuation.** If a structure cannot be floodproofed, then USACE may acquire the structure in the name of the Non-Federal Sponsor, vacate it, and demolish it. A simple scope of work is prepared describing how the demolition is to be performed. The demolition scopes of work will not undergo ATR.

b. **Required ATR Team Expertise.** Since ATR is not required for any of the current phases of the project, no team members are required at this time.

c. **Documentation of ATR.** Since ATR is not required for any of the current phases of the project, no documentation of ATR is required at this time.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for implementation documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Type I IEPRs are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.

- Type II IEPR. Type II IEPRs, or Safety Assurance Reviews (SARs), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health, safety, and welfare.

a. **Decision on IEPR.** No IEPR is recommended for the remaining components of the Grundy project. Although this project will reduce flood impacts to the town, the solution does not contain the typical risk associated with traditional flood damage reduction projects and does not pose a significant threat to human life. The remaining components of the Grundy project are nonstructural in nature. There are no floodwalls, levees, impoundments, or dams. Since the project does not impound or control floodwater in any way, there are no downstream life safety impacts. The project has a very low design and construction risk. Consequently, an IEPR is not warranted.

Major risk factors considered include the following:

(1) This project does not meet the intent of the "innovative materials or techniques" factor. It primarily includes routine raising-in-place of individual structures, which CELRH has performed numerous times as a means of flood risk management.
(2) The project design does not require redundancy, resiliency, or robustness.

(i) This project is not "redundant" in nature. Each individual structure will be acquired and removed, raised in place, or replaced on-site above the flood elevation. Performing two or more of these for a structure is not an option.
(ii) The project does not have any operational features in which to instill "resiliency." There are no ringwalls, flood walls, levees, or flood gates.
(iii) This project is not "robust" in nature. A perceived failure would occur during a flood greater than the 100-year event. However, this failure would not be due to the design or construction of the project, but due to its limiting legislative authorization.

(3) This project does not have a unique construction sequencing or a reduced or overlapping design construction schedule. Individual structures will be floodproofed as funding is available.

Further, an incomplete project, which could result from a lack of project funding, does not contain more risk to human life or life safety than the without-project condition. Structures may be floodproofed on an individual basis as funding is received, which will cause no increase in the risk to life safety.

b. **Products to Undergo Type I IEPR.** Not applicable. The DPR was completed in 1993 prior to the requirements of EC 1165-2-209.

c. **Products to Undergo Type II IEPR SAR.** Not Applicable. A Type II IEPR is not recommended for the Grundy project.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents have been reviewed throughout the study process for compliance with the law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

The DPR, completed in 1993, authorized a nonstructural project that would include floodproofing, permanent floodplain evacuation, a ringwall/levee, a redevelopment site, school relocation, and relocation of town departments. An ITR of the DPR was completed in April 2002. The Directorate of Civil Works approved the DPR on 3 May 1995.

8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX.

The DPR, completed in 1993, authorized a nonstructural project that would include floodproofing, permanent floodplain evacuation, a ringwall/levee, a redevelopment site, school relocation, and

relocation of town departments as components of a comprehensive flood damage reduction plan. The DPR was not coordinated with the Cost Engineering DX. As stated above, the DPR was completed in 1993, prior to the requirement for Cost Engineering DX involvement.

The RMO will coordinate with the Cost Engineering DX to ensure the appropriate expertise is included on the ATR teams to assess the adequacy of cost estimates, construction schedules and contingencies.

9. REVIEW SCHEDULES AND COSTS

a. **ATR Schedule.** At this time there are no established schedules for ATR because ATR is not required for any of the products addressed in this RP.

b. **ATR Cost.** Since ATR is not required for any of the current phases of the project, no costs have been calculated at this time.

10. PUBLIC PARTICIPATION

As part of the peer review, opportunities were and will continue to be provided for the public to comment on the study and decision documents that are to be reviewed. CELRH made the draft Grundy DPR and Environmental Assessment (EA) document available to the public for comment and sponsored several public meetings and workshops prior to its approval. Several National Environmental Policy Act (NEPA) public scoping meetings were held presenting information at various stages during the feasibility study to receive input from the public. Information obtained during public meetings was used to assist in plan formulation and to complete the draft environmental documents necessary to meet both Federal and State requirements. This includes State and Federal agency reviews as well. Additional public meetings will be conducted, as necessary, throughout the project phases. Information will also be conveyed to the public through the use of press releases and media interviews as necessary and through the use of posting information to CELRH's web site. There is no formal public review for the DDR, P&S, and construction phases. However, the cost share partner, the Town of Grundy, will have opportunities to review the construction phase as part of the PDT. Public facility owners will also have opportunities for review per the relocation contracts. Upon MSC approval of this RP, the RP will be posted on the CELRH Internet for Public Review: (http://www.lrh.usace.army.mil/approved_review_plans_rps).

11. REVIEW PLAN APPROVAL AND UPDATES

The MSC Commander is responsible for approving this RP. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the project. Like the PMP, the RP is a living document and may change as the study progresses. CELRH is responsible for keeping the RP up to date. Minor changes to the RP since the last MSC Commander approval will be documented in Attachment 3. Significant changes to the RP (such as changes to the scope and/or level of review) shall be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the RP, along with the Commanders' approval memorandum, will be posted on CELRH's webpage. The latest RP will also be provided to the RMO and MSC.

12. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this RP can be directed to the following points of contact:

- *Ken Woodard, CELRH, Project Manager, 304-399-5322*
- *John Simpkins, CELRH, Lead Engineer, 304-399-6993*
- *Melissa Boyd, CELRH, EC Quality Manager, 304-399-5129*
- *Roger Zemba, CELRD, MSC/RMO POC, 513-684-3018*
- *TBD, RMC, RMC POC, 720-215-xxxx*

ATTACHMENT 1: TEAM ROSTERS

TABLE 1: Product Delivery Team		
Functional Area	**Name**	**Office**
Project Manager	Ken Woodard, PE, PMP	CELRH
Lead Engineer / Civil Design / Relocations	John Simpkins	CELRH
Planning	Stephen Harris, CFM	CELRH
Real Estate	Gary Walker, PS	CELRH
Contracting	Eileen Hodges, CAP	CELRH
Legal	Kim Perry	CELRH
Public Affairs	Chuck Minsker	CELRH
Architecture	Evan Dailey, RA	CELRH
Structural	John Clarkson, PE	CELRH
Surveys	Earnest McCarty, Jr, PS	CELRH
Hydrology and Hydraulics	Christopher Lopez, PE	CELRH
Geotechnical (Soils)	Alexander Neal, PE	CELRH
Geology	Josh Bruce	CELRH
Cost Engineering	Stephen Wallington	CELRH
HTRW	Jean Read	CELRH
Construction	Kurt Baden	CELRH
Specifications	Rebecca Fulks	CELRH
Environmental	Michael McComas, CFM	CELRH

TABLE 2: District Quality Control Team		
Functional Area	**Name**	**Office**
DQC Lead / Civil Design / Relocations	Joe McCallister, PE	CELRH
Planning	Steve O'Leary, RA	CELRH
Real Estate	Elizabeth Cooper	CELRH
Contracting	Ginny Morgan, CAP	CELRH
Legal	Tom Bradley	CELRH
Public Affairs	Brian Maka	CELRH
Architecture	Todd Mitchell, RA	CELRH
Structural	Rick Rutherford, PE	CELRH
Surveys	Paul Dean, PS	CELRH
Hydrology and Hydraulics	Ken Halstead, PE	CELRH
Geotechnical (Soils)	Bill Weekley	CELRH
Geology	Anthony Paschall	CELRH
Cost Engineering	Brian Clouse	CELRH
HTRW	Janet Wolfe	CELRH
Construction	John Atkins	CELRH
Specifications	Alicia Scruggs	CELRH
Environmental	Mitch Strain, PWS, CPSC	CELRH

TABLE 3: Agency Technical Review Team

NAME	DISCIPLINE	OFFICE
TBD	None at this time	TBD

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) of the *<type of product>* for the *<Project Feature>* for the Grundy, Virginia, Section 202 Nonstructural Project has been completed. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of the following: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

SIGNATURE _____ _____

Name Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Kenneth L. Woodard, PE, PMP Date
Project Manager
CELRH-PM-PP-P

SIGNATURE _____ _____

TBD Date
Title TBD
CELRD-RBT

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE _____ _____

John R. Bock, PE Date
Chief, Engineering & Construction Division
CELRH-EC

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: COMPLETED ATR REVIEW REPORTS