DATE: DECEMBER 1, 2008 CLERK: MARY BETH BAILEY

MASSILLON CITY COUNCIL
CITY OF MASSILLON, OHIO
GLENN E. GAMBER, PRESIDENT

COUNCIL CHAMBERS LEGISLATIVE DEPARTMENT

ORDINANCE NO. 149 - 2008

BY: ENVIRONMENTAL COMMITTEE

TITLE: AN ORDINANCE authorizing the Mayor of the City of Massillon, Ohio, to sign the Letter of Agreement to comply with the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10) and Request for Provisionally Accredited Levee (PAL) Designation, and declaring an emergency.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF MASSILLON, STATE OF OHIO, THAT:

Section I:

The Council of the City of Massillon, Ohio, hereby determines it to be necessary in the public health, safety and welfare to enter into the Letter of Agreement to comply with the Code of Federal Regulations, Title 44, Section 65.10 (44 CRD 65.10) and Request for Provisionally Accredited Levee (PAL) Designation.

Section 2:

The Mayor of the City of Massillon, Ohio, is hereby authorized and directed to sign the Letter of Agreement to comply with the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10) and Request for Provisionally Accredited Levee (PAL) Designation.

Section 3:

This Ordinance is hereby declared to be an emergency measure necessary for the preservation of the health, safety and welfare of the community and for the additional reason that it is necessary that these documents are signed otherwise FEMA will no longer accredit the levee and all areas within the floodplain. Provided it receives the affirmative vote of two-thirds of the elected members to Council, it shall take effect and be in force immediately upon its passage and approval by the Mayor. Otherwise, it shall take effect and be in force from and after the earliest period allowed by law.

PASSED IN COUNCIL THIS 1st DAY OF December, 2008

ATTEST: Mary Beth Bailey
MARY BETH BAILEY, CLERK OF COUNCIL

Glenn Gamber
GLENN E. GAMBER, PRESIDENT

APPROVED: December 2, 2008

Francis H. Cicchinelli Jr.
FRANCIS H. CICCHINELLI, JR., MAYOR

I hereby certify that the foregoing ordinance is a true copy of the original, as passed by the Council of the City of Massillon, Ohio, and approved as noted thereon:

Mary Beth Bailey
Clerk of Council

Date 12/1/08

U.S. Department of Homeland Security
536 S. Clark St. 6th Floor
Chicago, IL 60605

FEMA

October 16, 2008

The Honorable Francis Cicchinelli, Jr., Mayor
City of Massillon
1 James Duncan Plaza
Massillon, OH 44646

RE: Massillon Local Flood Protection Project

Dear Mr. Cicchinelli, Jr.,

This is in regard to the Massillon Local Flood Protection Project shown on the effective Flood Insurance Rate Map (FIRM) and in the effective Flood Insurance Study (FIS) report for the City of Massillon. As you may know, the Ohio Department of Natural Resources and FEMA are working jointly to produce a countywide FIS report and Digital Flood Insurance Rate Map (DFIRM) for Stark County. This effort is being undertaken as part of FEMA's Flood Map Modernization (Map Mod) program.

The effective FIRM and FIS report depict some areas as receiving protection through the Massillon Local Flood Protection Project. Based on the information available and on the mapping standards of the National Flood Insurance Program (NFIP) at the time that the FIS was performed, FEMA accredited the levee with providing protection from the flood that has a one percent chance of being equaled or exceeded in any given year. This one percent annual-chance flood is also referred to as the base flood.

For FEMA to continue to accredit the identified levee with providing protection from the base flood, the levee must meet the requirements of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), entitled "Mapping of Areas Protected by Levee Systems" (copy enclosed). In accordance with 44 CFR 65.10(a), it is the responsibility of the community or other party seeking recognition of a levee system to provide the data defined and outlined within the regulation. Specifically, the design and construction data provided must be certified by a registered professional engineer or by a Federal agency with responsibility for levee design.

FEMA understands that it may take time to acquire and/or assemble the documentation necessary to fully comply with 44 CFR 65.10. Therefore, FEMA has incorporated a process into the aggressive schedule of Map Mod that, if needed, will provide the community or other party seeking recognition of a levee system, with additional time to submit all the necessary documentation. **This process can only take place if the levee owner, The United States Army Corps of Engineers – Huntington District, and a representative of the impacted community sign and return the enclosed agreement within 90 days of the date of this letter (before January 14, 2009).**

Completion and submittal of the enclosed template will serve as your official request that FEMA label the levee as a Provisionally Accredited Levee (PAL) on the DFIRM and will serve as your agreement that, to the best of your knowledge, the levee meets the requirements of 44 CFR 65.10. As stated above, it is the responsibility of the levee owner to submit the data required by 44 CFR 65.10 in order to certify the levee as providing protection from the base flood. The completed agreement must be submitted before January 14, 2009 the levee to receive the PAL designation.

By endorsing the agreement, you acknowledge that if all necessary documentation to comply with 44 CFR 65.10 is not provided before January 14, 2011, FEMA will initiate a map revision to redesignate certain areas on the landward side of the levee as floodprone. Upon receipt of the 44 CFR 65.10 submittal, we will review the data and determine whether the levee will continue to be accredited with providing protection from the base flood. Please note that affected communities that do not own and/or maintain the levee(s) in question are not responsible for submitting data necessary for 44 CFR 65.10 compliance.

The approved levees will be labeled as PALs during the 24-month period to convey to map users that levee certification verification is underway. FEMA recommends that you and other impacted communities implement outreach efforts to inform affected property owners that an assessment of the levee is underway. FEMA also encourages the purchase of flood insurance, even though coverage is not federally required.

If you have additional questions regarding the specific submittal requirements, please contact Mike Hanke of my staff, either by telephone at (312) 408-5364 or by e-mail, at mike.hanke@dhs.gov.

Please return the completed agreement to the following address:

FEMA
Attn: Mike Hanke
536 S. Clark St. 6th Floor
Chicago, IL 60605

We look forward to working with you and community officials to address this important matter. If there is anything we can do to facilitate the submittal process, please let us know.

Sincerely,

Norbert Schwartz

Norbert Schwartz
Director, Mitigation Division
FEMA Region V

Enclosures

Cc: Col. Dana R. Hurst, Huntington District Commander, United States Army Corps of Engineers
Mr. Jim Witherspoon, Chief Building Official, Floodplain Administrator
Mr. Dave Humphries, United States Army Corps of Engineers
Mr. Steve Spagna, United States Army Corps of Engineers
Ms. Cindy Crecelius, Ohio NFIP State Coordinator, ODNR

Mr. Jonathan Sorg, ODNR
Mr. Tadd Henson, Stantec
Mr. Mike Hanke, FEMA Region V
Mr. Robert Murdock, Regional Management Center 5
U.S. Senator George Voinovich, Washington, DC Office
U.S. Senator Sherrod Brown, Washington, DC Office
U.S. Congressman Ralph Regula, Washington, DC Office

Letter of Agreement to Comply With the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10) and Request for Provisionally Accredited Levee (PAL) Designation

Massillon Local Flood Protection Project

We, the undersigned, have received the letter from FEMA dated October 16, 2008, and the enclosed document entitled "Requirements of 44 CFR 65.10". We understand that FEMA is in the process of providing updated flood maps for Stark County and that the area behind the levee system known collectively as the Massillon Local Flood Protection Project will be remapped to reflect that the levee system has been designated as a PAL.

We understand that all the necessary information to show that the levee system known collectively as the Massillon Local Flood Protection Project complies with 44 CFR 65.10 will be required before January 14, 2011. In addition, we understand that it is the responsibility of the levee owners, both individually and collectively, to submit the data required by 44 CFR 65.10 before FEMA can accredit the levee system as providing protection from the base flood. This information will allow FEMA to move forward with the flood mapping for Stark County. We fully acknowledge that if complete documentation of compliance with 44 CFR 65.10 is not provided within the designated timeframe of 24 months, FEMA will initiate a map revision to redesignate certain areas on the landward side of the levee as floodprone.

Levee Owner Community CEO _____ (signature)

_____ (print)

_____ (name of community)

Date: _____

Other (if applicable) _____ (signature)

_____ (print)

Date: _____

FACT SHEET

LEVEES
IDENTIFYING THE RISK

Requirements of 44 CFR Section 65.10:

Mapping of Areas Protected by Levee Systems

As part of a mapping project, it is the levee owner's or community's responsibility to provide data and documentation to show that a levee meets the requirements of Section 65.10 of the National Flood Insurance Program (NFIP) regulations. Links to Section 65.10 and many other documents are available on FEMA's Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

The FEMA requirements in Section 65.10 are separated into five categories:

1. General criteria;
2. Design criteria;
3. Operations plans and criteria;
4. Maintenance plans and criteria; and
5. Certification requirements.

The requirements for each of these areas are summarized below.

(A) GENERAL CRITERIA

For purposes of the NFIP, FEMA will only recognize in its flood hazard and risk mapping effort those levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with the level of protection sought through the comprehensive floodplain management criteria established by Section 60.3 of the NFIP regulations. Section 65.10 of the NFIP regulations describes the types of information FEMA needs to recognize, on NFIP maps, that a levee system provides protection from the flood that has a 1-percent chance of being equaled or exceeded in any give year (base flood). This information must be supplied to FEMA by the community or other party seeking recognition of a levee system at the time a study or restudy is conducted, when a map revision under the provisions of Part 65 of the NFIP regulations is sought based on a levee system, and upon request by the Administrator during the review of previously recognized structures. The FEMA review is for the sole purpose of establishing appropriate risk zone determinations for NFIP maps and does not constitute a determination by FEMA as to how a structure or system will perform in a flood event.

(B) DESIGN CRITERIA

For the purposes of the NFIP, FEMA has established levee design criteria for freeboard, closures, embankment protection, embankment and foundation stability, settlement, interior drainage, and other design criteria. These criteria are summarized in subsections below.

(B)(1) FREEBOARD

For riverine levees:

- A minimum freeboard of 3 feet above the water-surface level of the base flood must be provided.
- An additional 1 foot above the minimum is required within 100 feet on either side of structures (e.g., bridges) riverward of the levee or wherever the flow is constricted.

- Ice loading;
- Impact of debris;
- Slope protection techniques;
- Duration of flooding at various stages and velocities;
- Embankment and foundation materials;
- Levee alignment, bends, and transitions; and
- Levee side slopes.

(B)(4) EMBANKMENT AND FOUNDATION STABILITY

Engineering analyses that evaluate levee embankment stability must be submitted.

The analyses provided shall evaluate expected seepage during loading conditions associated with the base flood and shall demonstrate that seepage into or through the levee foundation and embankment will not jeopardize embankment or foundation stability.

An alternative analysis demonstrating that the levee is designed and constructed for stability against loading conditions for Case IV as defined in U.S. Army Corps of Engineers (USACE) Engineering Manual 1110-2-1913, Chapter 6, Section II, may be used.

The factors that shall be addressed in the analyses include:

- Depth of flooding;
- Duration of flooding;
- Embankment geometry and length of seepage path at critical locations;
- Embankment and foundation materials;
- Embankment compaction;
- Penetrations;
- Other design factors affecting seepage (e.g., drainage layers); and
- Other design factors affecting embankment and foundation stability (e.g., berms).

(B)(5) SETTLEMENT

Engineering analyses must be submitted that assess the potential and magnitude of future losses of freeboard as a result of levee settlement and demonstrate that freeboard will be maintained within the minimum freeboard standards set forth in B(1).

This analysis must address:

- Embankment loads,
- Compressibility of embankment soils,
- Compressibility of foundation soils,

(C)(2) INTERIOR DRAINAGE SYSTEMS

Interior drainage systems associated with levee systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof. FEMA will recognize these drainage systems on NFIP maps for flood protection purposes only if the following minimum criteria are included in the operation plan:

- Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists to permit activation of mechanized portions of the drainage system;
- A formal plan of operation, including specific actions and assignments of responsibility by individual name or title;
- Provision for manual backup for the activation of automatic systems; and
- Provisions for periodic inspection of interior drainage systems and periodic operation of any mechanized portions for testing and training purposes; no more than 1 year shall elapse between either the inspections or the operations.

(C)(3) OTHER OPERATION PLANS AND CRITERIA

FEMA may require other operating plans and criteria to ensure that adequate protection is provided in specific situations. In such cases, sound emergency management practice will be the standard upon which FEMA determinations will be based.

(D) MAINTENANCE PLANS AND CRITERIA

For levee systems to be recognized as providing protection from the base flood, the following maintenance criteria must be met:

- Levee systems must be maintained in accordance with an officially adopted maintenance plan, and a copy of this plan must be provided to FEMA by the owner of the levee system when recognition is being sought or when the plan for a previously recognized system is revised in any manner.
- All maintenance activities must be under the jurisdiction of a(n):
    - Federal or State agency;
    - Agency created by Federal or State law; or
    - Agency of a community participating in the NFIP that must assume ultimate responsibility for maintenance.
- The maintenance plan must document the formal procedure that ensures that the stability, height, and overall integrity of the levee and its associated structures and systems are maintained.
- At a minimum, the maintenance plan shall specify:
    - Maintenance activities to be performed;
    - Frequency of their performance; and
    - Person by name or title responsible for their performance.

(E) CERTIFICATION REQUIREMENTS

Data submitted to support that a given levee system complies with the structural requirements set forth in B(1) through B(7) above must be certified by a Registered Professional Engineer. Also, certified as-built plans of the levee must be submitted. Certifications are subject to the definition given in Section 65.2 of the NFIP regulations. In lieu of these structural requirements, a Federal agency with responsibility for levee design may certify that the levee has been adequately designed and constructed to provide protection against the base flood.

- Age of the levee system, and
- Construction compaction methods.

A detailed settlement analysis using procedures such as those described in USACE Engineering Manual EM 1100-2-1904 must be submitted.

(B)(6) INTERIOR DRAINAGE

An analysis must be submitted that identifies the source(s) of such flooding; the extent of the flooded area; and, if the average depth is greater than 1 foot, the water-surface elevation(s) of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities (such as drainage lines and pumps) for evacuating interior floodwaters. Interior drainage systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof.

For areas of interior drainage that have average depths greater than 1 foot, mapping must be provided depicting the extents of the interior flooding, along with supporting documentation.

(B)(7) OTHER DESIGN CRITERIA

In unique situations, such as those where the levee system has relatively high vulnerability, FEMA may require that other design criteria and analyses be submitted to show that the levees provide adequate protection. In such situations, sound engineering practice will be the standard on which FEMA will base its determinations. FEMA also will provide the rationale for requiring this additional information.

(C) OPERATIONS PLANS AND CRITERIA

For a levee system to be recognized, the operational criteria must be as described below. All closure devices or mechanical systems for internal drainage, whether manual or automatic, must be operated in accordance with an officially adopted operation manual, a copy of which must be provided to FEMA by the operator when levee or drainage system recognition is being sought or when the manual for a previously recognized system is revised in any manner. All operations must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP.

(C)(1) CLOSURES

Operation plans for closures must include the following:

- Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists for the completed operation of all closure structures, including necessary sealing, before floodwaters reach the base of the closure;
- A formal plan of operation, including specific actions and assignments of responsibility by individual name or title; and
- Provisions for periodic operation, at not less than 1-year intervals, of the closure structure(s) for testing and training purposes.

- An additional 0.5 foot above the minimum at the upstream end of the levee, tapering to not less than the minimum at the downstream end of the levee, is also required.

Exceptions to the minimum riverine freeboard requirements above may be approved if the following criteria are met:

- Appropriate engineering analyses demonstrating adequate protection with a lesser freeboard must be submitted.
- The material presented must evaluate the uncertainty in the estimated base flood elevation profile and include, but not necessarily be limited to:
    - An assessment of statistical confidence limits of the 1-percent-annual-chance discharge;
    - Changes in stage-discharge relationships; and
    - Sources, potential, and magnitude of debris, sediment, and ice accumulation.
- It must be also shown that the levee will remain structurally stable during the base flood when such additional loading considerations are imposed.

Under no circumstances will freeboard of less than 2 feet be accepted.

For coastal levees, the freeboard must be established at 1 foot above the height of the 1-percent-annual-chance wave or the maximum wave runup (whichever is greater) associated with the 1-percent-annual-chance stillwater surge elevation at the site.

Exceptions to the minimum coastal freeboard requirements above may be approved if the following criteria are met:

- Appropriate engineering analyses demonstrating adequate protection with a lesser freeboard must be submitted.
- The material presented must evaluate the uncertainty in the estimated base flood loading conditions. Particular emphasis must be placed on the effects of wave attack and overtopping on the stability of the levee.

Under no circumstances will a freeboard of less than 2 feet above the 1-percent-annual-chance stillwater surge elevation be accepted.

(B)(2) CLOSURES

The levee closure requirement is that all openings must be provided with closure devices that are structural parts of the system during operation and design according to sound engineering practice.

(B)(3) EMBANKMENT PROTECTION

Engineering analyses must be submitted to demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either currents or waves, and that anticipated erosion will not result in failure of the levee embankment or foundation directly or indirectly through reduction of the seepage path and subsequent instability.

The factors to be addressed in such analyses include, but are not limited to:

- Expected flow velocities (especially in constricted areas);
- Expected wind and wave action;