

**AGENDA**  
**City of Monona Plan Commission**  
**Monona Public Library - Municipal Room**  
**1000 Nichols Road, Monona, WI**  
**Monday October 10, 2016**  
**7:00p.m.**

1. Call to Order
2. Roll Call
3. Approval of Minutes of September 26, 2016
4. Appearances
5. Unfinished Business
  - A. Plan Commission Review and Recommendation to City Council on Recodification Summary by General Code Regarding Land Use Legislation Sections of the Monona Municipal Code of Ordinances.
6. New Business
  - A. Public Hearing Regarding Proposed Floodplain Map and Ordinance Amendment Resulting from Construction of the Madison Metropolitan Sewerage District Pump Station 18, 1000 E Broadway, as Required by Sec. 13-2-10 of the MCO. (Case No. 2-008-2016)
  - B. Consideration of Recommendation to City Council Regarding Proposed Floodplain Map and Ordinance Amendment Resulting from Construction of the Madison Metropolitan Sewerage District Pump Station 18, 1000 E Broadway, as Required by Sec. 13-2-10 of the MCO. (Case No. 2-008-2016).
  - C. Public Hearing on Request by La Rae Richard, The Cozy Home, for a Zoning Permit and Façade Improvement Grant Application for the Property at 6328 Monona Drive. (Case No. 2-007-2016)
  - D. Prehearing Conference on Request by La Rae Richard, The Cozy Home, for a Zoning Permit and Façade Improvement Grant Application for the Property at 6328 Monona Drive. (Case No. 2-007-2016)
7. Reports of Staff and Commission Members
  - A. Staff Report Regarding Status of Development Project Proposals.
    - i. Upcoming Meetings: October 24, 2016 and November 14, 2016
  - B. Plan Commission Requests for Information Concerning Development Projects.
8. Adjournment

NOTE: Upon reasonable notice, the City of Monona will accommodate the needs of disabled individuals through auxiliary aids or services. For additional information or to request this service, contact Joan

Andrusz at (608)222-2525, FAX: (608)222-9225, or through the City Police Department TDD telephone number 441-0399. The public is notified that any final action taken at a previous meeting may be reconsidered pursuant to the City of Monona ordinances. A suspension of the rules may allow for final action to be taken on an item of New Business.

It is possible that members of an a possible quorum of members of other governmental bodies of the municipality may be in attendance at the above state meeting to gather information or speak about a subject, over which they have decision-making responsibility. Any governmental body at the above state meeting will take no action other than the governmental body specifically referred to above in this notice.

Agenda posted 10/3/16 on the City Hall, Library, and Community Center bulletin boards and on the City of Monona's website, [www.mymonona.com](http://www.mymonona.com).

**Minutes  
Plan Commission Meeting  
September 26, 2016  
7:00pm**

Chair Busse called the meeting of the City of Monona Plan Commission to order at 7:00pm.

Present: Chair Alder Jim Busse, Mr. Robert Stein, Ms. Susan Fox, Mr. Chris Homburg, and Ms. Kathy Thomas

Excused: Mr. Dale Ganser, Mr. Grif Dorschel and Alder Brian Holmquist

Also present: City Planner & Economic Development Director Sonja Reichertz

**Approval of Minutes**

A motion by Ms. Thomas, seconded by Mr. Stein, to approve the minutes of August 8, 2016 carried without corrections.

**Appearances**

There were no appearances.

**New Business**

**A. Consideration of Action on Request by Mike Johnson, Graphic House Inc., and Property Owner United Properties to Repeal the Existing 1999 Pier 37 Signage Plan and Replace it with a Revised Comprehensive Signage Plan for Pier 37 Dated September 13, 2016.**

Mike Johnson, Graphic House Inc., asked for approval to repeal the existing 1999 Pier 37 Signage Plan and replace it with a revised Comprehensive Signage Plan for Pier 37 dated September 13, 2016. Mr. Johnson referenced the memo from staff and explained that the new plan will eliminate color specifications and dated references like neon lighting, but the overall intent of plan will stay the same. This is prompted by a Pick n Save sign permit that did not meet the color requirements.

Planner Reichertz explained that previously if a sign did not meet the specifications of a shopping center signage plan, like this one, the applicant would need to go to Plan Commission for a special exception. Staff stated that there has been recent discussion of a change in policy direction by Plan Commission to change the overall plan rather than review exceptions on a case by case basis. Mr. Homburg asked if any sign color would be allowed under the new plan. Staff said yes, and that each tenant's sign would have to be approved by the landlord. Mr. Homburg asked the Commission if the City should be deviating from the uniform color standards that have directed signage for the last 20+ years.

Mr. Jonson reported that it was a common trend 20 to 25 years ago for signs in shopping centers to be regulated by municipalities for color consistency. However, this consistency requirement has caused many variance requests, and people had a difficult time distinguishing tenant from tenant. It also deterred large national chains from choosing to locate in those regulated centers, which hinders development. Mr. Johnson stated that over the years municipalities have been relaxing the requirements. Chair Busse clarified that the revised plan still limits size and because the landlord is responsible for approving signs, he/she will have an interest in something aesthetically pleasing.

Reichertz added that this was a policy direction discussed by the Plan Commission multiple times, specifically when the Air Force tenant came into Pier 37, and one other signage plan for South Towne Mall has already been amended in a similar fashion.

A motion was made by Ms. Thomas and seconded by Mr. Stein to approve the signage plan as proposed.

The motion carried.

### **Unfinished Business**

#### **A. Plan Commission Review and Recommendation to City Council on Recodification Summary by General Code Regarding Land Use Legislation Sections of the Monona Municipal Code of Ordinances.**

Planner Reichertz reviewed direction from the Plan Commission to address the issues with grading and impervious surface related to redevelopment of single family homes. Staff discussed with the City Attorney and attempted to address some of the requests from the previous meeting, specifically the Plan Commission's desire to carve out an area where exceptions could be reviewed by Plan Commission and to specifically tie in the height of a structure to the grading/elevation of the lot. She reviewed the revisions to definitions to height, lot coverage and impervious surface.

Reichertz reviewed draft ordinance language with new standards for grading and impervious surface. For grading, it would require the first floor elevation to be no more than 2 feet above the adjacent street grade, with an allowance after Plan Commission review to eight feet. She stated that the ordinance as drafted was based on the Plan Commission request for something that is measurable and uniform for the community, that ties structure height to grade, incorporates a specific impervious surface limit, and allows some flexibility at the Commission level. However, it is clear that as written, too many existing structures will become non-conforming and the regulation may be too broad, negatively impacting properties that are not the cause of concern. She said this is a starting point for discussion. Planner Reichertz explained the issues within the grading requirements due to the topographic variability in Monona by showing photos of homes constructed at different grades throughout the community.

Ms. Thomas stated that it is easy to set standards when all the land is leveled and flat, but asked how one sets fair standards when there is a variety in topography? Mr. Homburg stated that if we use the street grade as a measurement point, tear downs would not be compliant on the properties that staff demonstrated. The grades have to be defined via adjacent property grades as well as blending into the neighborhood. However, he pointed out issues with this as well, on streets with steep grades such as Baskerville. Ms. Thomas asked what exactly the problem is that they are trying to solve. Is it an issue of runoff, or shade caused by a taller structure? Chair Busse asked if there is already a runoff requirement.

Mr. Stein commented that according to previous Plan Commission meeting minutes, they wanted to write the ordinance in a way where applicants would need to come to the Commission for approval since there are approximately five new homes constructed per year. Ms. Thomas said there are more than five if you count substantial remodeling. Staff noted that with the additions and remodeling, substantial grading changes may not be an issue.

Ms. Fox stated that some of the properties clearly did not alter the elevation. She asked if the development concerns are more related to aesthetics and runoff, and if the grade changes are in the building permit phase. Ms. Fox also said that the main issue is when they raise the entire grade, rather than excavate down. Mr. Homburg stated that if the site plan goes to the building inspector

and he questions if it will negatively affect the neighbor that could be grounds for Plan Commission review.

Ms. Thomas stated that she is inclined to agree with Mr. Stein and that if it is only five new homes a year the only way to logically deal with the issue is to bring it to Plan Commission. Chair Busse commented that if the developments came to Plan Commission they could still the conditions similar to as they are written in the draft ordinance.

The Commission discussed if it was appropriate for developments to be brought to Plan Commission for review. Mr. Stein said he would be ok with it. Ms. Fox stated she was ok with it coming to this body if they had general guidelines for developments. She also expressed her concern that it will continue to be a problem if the Commission does not address it. Chair Busse stated that he does not have a problem with developments coming to Plan Commission.

Ms. Fox said that aesthetics are also an issue of concern. Ms. Thomas stated that Plan Commission cannot get into issues of aesthetics. There was further discussion on if the community concern was more about aesthetics or grading. Ms. Fox clarified that she is referencing aesthetics in terms of grading and not color or style.

Planner Reichertz asked for additional direction on how the Commission would define new construction, or those projects that would be reviewed by Plan Commission. There was discussion about regulating based on the percentage of the structure's square footage or footprint that was changed. Mr. Stein asked if the square footage would also include the basement. Chair Busse clarified that the square footage be based on the building footprint. Mr. Stein cautioned that the Commission should not just grab a random percentage. Chair Busse asked if they want a small number so the development errs on the side on coming to Plan Commission. Mr. Homburg said that we want to encourage remodels.

The Commission discussed the draft impervious surface language.

Mr. Homburg explained how impervious surface requirements are window dressing for addressing water quality issues. He also explained how this regulation is difficult in Monona given the large amount of substandard lots. He said in his neighborhood the properties are more than 70 or 75% impervious already. He said one argument for impervious surface limits with regard to water quality is that it promotes infiltration; however it may not be as valid in Monona where there is a large amount of clay soil and shallow ground water tables. He questioned whether we should be regulating impervious surface for the purpose of aesthetics.

Mr. Stein said that Mr. Homburg made some valid points, but that other zoning standards are enforced for aesthetic purposes such as avoiding tall houses. Also reducing impervious surface can slow runoff rate before it gets to the sewer system or lake. Mr. Stein stated that there is merit in having a limitation. Ms. Fox stated that one of the exceptions listed for maximum impervious surface is substandard lots and suggested that maybe developments go to ZBA if it is 75% impervious or if there is another agreed number. Ms. Fox gave the example of the stretch of developments on Tonyawatha and how destructive it is for the character of the street.

Chair Busse asked the Commission if the proposed maximum impervious surface requirement should be removed completely. Mr. Homburg said yes because Monona has too many small lots and Monona already has strict development standards that we are trying to ease in order to attract more families. Ms. Fox said she needs to think about it more and see the rationale for implementing requirements in other communities. Chair Busse stated that without restrictions there would be nothing to stop someone from building a tennis or basketball court in their street yard. Mr. Homburg

said that is their choice. Chair Busse wants to bring this discussion back for when more Commission members are present.

Planner Reichertz said she will investigate other comparable communities to see how they address these issues on substandard lots and for lakeside developments. Ms. Fox brought up the example for Boulder, Colorado and their impervious requirements.

## **B. Review and Approval of 2017 Planning Department Operating Budget.**

Planner Reichertz explained that the annual operating budget needs committee approval and explained the line items.

A motion was made by Ms. Thomas and seconded by Mr. Stein to approve the budget as recommended.

The motion carried.

## **Reports of Staff and Commission Members**

### **A. Staff Report Regarding Status of Development Project Proposals.**

The next meeting is October 10, 2016. Applications include a required floodplain map revision for a MMSD pump station, and an application from Taco Bell for architectural revisions that are potentially inconsistent with Pier 37 architectural standards.

### **B. Plan Commission Requests for Information Concerning Development Projects.**

Mr. Homburg asked about the status of Qdoba's drive-thru menu board, which needed special Plan Commission approval. Planner Reichertz stated that the drive-thru was not working well operationally, so they removed the menu board and will keep the drive thru lane and window for call in orders for pick up. Mr. Homburg also stated that there are sandwich board signs all over the city on private residential properties. He said if it is okay for them to have them, then perhaps we should consider allowing them for businesses when we look at the sign code revisions.

## **Adjournment**

A motion by Mr. Stein, seconded by Ms. Fox, to adjourn was carried. (8:14 pm)

Respectfully submitted by:  
Sonja Reichertz, City Planner



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**MEMO**

TO: Plan Commission  
FROM: Sonja Reichertz, City Planner & Economic Development Director  
DATE: October 7, 2016  
RE: Grading Standards for Single Family Homes

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**Process:** This memo only addresses grading. We will have time at the October 24<sup>th</sup> meeting to review again, as well as impervious surface. The Council also referred the issue of short-term rentals back to the Plan Commission which we will review on October 24<sup>th</sup>.

**Issue:** Concerns over recent development / redevelopment of single-family homes and questions regarding their appropriateness to the neighborhood, specifically significant alterations of natural grade.



*Left: home is multiple feet above street grade but blends in with character of neighborhood and is not offensive. Middle: Lot has long front yard with gradually increasing natural slope. Right: Excavated natural grade for garage, but first floor elevation is many feet above street. None of these are the problems the Commission is trying to address.*

**Option 1: Tie Finished Grade of House to Street Grade**

Summary	Draft Ordinance Language
<ul style="list-style-type: none"> <li>• Ties finished home grade to street grade.</li> </ul>	<p><b>Grading Requirements.</b> The finished grade at the top of the highest foundation wall of the first floor elevation at the front of the structure shall not be more than two feet higher than the established street grade of the abutting street in the front yard. A special exception permit may be granted by the Plan Commission up to eight feet higher than the established street grade of the abutting street if all of the following conditions are met:</p> <ol style="list-style-type: none"> <li>(1) There is no negative impact to adjoining water bodies or adjacent parcels as a result of stormwater runoff.</li> <li>(2) The resulting finished floor elevation does not substantially deviate from the character of surrounding properties.</li> <li>(3) Excessive construction costs that are beyond the control of the applicant prohibit construction of a normal and expected use of the property.</li> </ol> <p>These regulations shall not prohibit compliance with floodplain development regulations. Any request above eight feet shall be reviewed as a variance request by the Zoning Board of Appeals.</p>
<ul style="list-style-type: none"> <li>• Reviewed at 9/26/16 Plan Commission meeting.</li> </ul>	
<ul style="list-style-type: none"> <li>• Objective and allowed for tiered review, encouraging staff review at the first step.</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Consensus was this does not work.</b></li> </ul>	

Summary of feedback on option one:

The Plan Commission reviewed draft grading standards for single family homes. The ordinance language tied the *home’s finished grade to the street grade* in a specific measurable way and allowed for a permitted grade elevation that would be reviewed by staff, an exception at the Plan Commission up to a certain elevation with conditions, and a variance at the Zoning Board of Appeals for anything beyond the maximum elevation.

Staff and the Commission pointed out limitations with the language. We questioned whether this regulation would meet the intent of preventing substantial grade changes as compared to an adjacent property or the neighborhood. It was an attempt at a uniform regulation that, in reality, would be too difficult to implement based on wide topographic variability from lot to lot. We recognized that Monona’s homes range from multiple feet below street grade to much higher than the eight feet above street grade that was drafted into the code.

Additionally, the Commission established that it will be difficult to tie grade into adjacent lots due to street grades. Baskerville for example, has a steep slope resulting in one home that sits significantly below its neighbor up the hill.

**Option 2: Tie Finished Grade of House to Size of Construction Project**

Summary	Draft Ordinance Language
<ul style="list-style-type: none"> <li>• Drafted based on direction from Plan Commission at the 9/26/16 meeting.</li> </ul>	<p><b>Grading Requirements.</b> The finished grade of the property accompanying any new construction, substantial additions, or alterations that expand the footprint of the house by more than 45% shall be reviewed by the Plan Commission. A grading plan may be approved if all of the following conditions are met:</p> <ul style="list-style-type: none"> <li>(1) There is no negative impact to adjoining water bodies or adjacent parcels as a result of stormwater runoff.</li> <li>(2) The resulting finished floor elevation does not substantially deviate from the character of surrounding properties.</li> <li>(3) To the extent reasonably possible, the existing natural character of the site has been preserved.</li> </ul> <p>These regulations shall not prohibit compliance with floodplain development regulations.</p>
<ul style="list-style-type: none"> <li>• Triggers Plan Commission review of grading based on expansion of building footprint.</li> </ul>	
<ul style="list-style-type: none"> <li>• Staff concerns with this approach include:               <ul style="list-style-type: none"> <li>○ Plan Commission review adds burden to homeowners and could discourage additions, remodels, or redevelopments.</li> <li>○ Grading conditions are not very specific/objective. We already have code language similar to “existing natural character of the site shall be preserved.”</li> <li>○ Size of home is not a good way to regulate grading. See comments below.</li> <li>○ The percentage of footprint expansion is arbitrary.</li> </ul> </li> </ul>	

Summary of feedback on option two:

Due to the extreme topographic variability throughout the city, and within individual lots themselves, the Commission sought to draft a different regulation that allowed *review of lots on a site specific basis*. In deliberating what the trigger would be for Plan Commission review, the Commission talked about when substantial grade changes occur. It is usually when there is complete redevelopment of a property, but could also occur with larger additions. However, not every redevelopment project results in a substantial grade change. There are many lots that preserve natural grade during construction no matter how small or large of a project.

Regarding substantial additions, we discussed triggering Commission review based on how much the square footage is expanded. However, it should be noted that this approach *imposes a regulation based on the size of a home. It is intended to be tied to the grade, but it does so indirectly*. Take for example a lot that is level. If someone purchases a small house and seeks to build an addition on a level lot, then this ordinance would require them to come to Plan Commission for approval of the additional size of their home. The purpose of the regulation is to maintain natural grading. The review would not meet the intent of or further the purpose of the regulation. Instead, it would burden a homeowner who is trying to bring a small, older home up to modern standards. Moreover, size of the addition is not directly correlated to negative impact of grade changes. If the homeowner has a 1,600 square foot house and the trigger is 45% footprint expansion, then they would be able to add 720 square feet to their home before coming to Plan Commission. It is impossible to say whether 700 square feet vs. 900 square feet of new space has more negative impact.

**Option 3: Tie Finished Grade of House to Natural Grade of Lot**

Summary	Draft Ordinance Language
<ul style="list-style-type: none"> <li>• Finished grade of house is tied to existing lot.</li> </ul>	<p><b>Grading Requirements.</b> The difference between the established natural grade of the property and the finished grade of the structure, as measured at the top of the highest foundation wall at the front of the structure, shall not exceed 2 feet. A special exception permit may be granted by the Plan Commission up to 4 feet higher than the established natural grade of the property if all of the following conditions are met:</p> <ol style="list-style-type: none"> <li>(1) There is no negative impact to the adjoining water bodies or adjacent parcels as a result of stormwater runoff.</li> <li>(2) The resulting finished floor elevation does not substantially deviate from the character of surrounding properties.</li> </ol> <p>These regulations shall not prohibit compliance with floodplain development regulations. Any request above four feet shall be reviewed as a variance request by the Zoning Board of Appeals.</p>
<ul style="list-style-type: none"> <li>• Allows for staff review.</li> </ul>	
<ul style="list-style-type: none"> <li>• Allows for exception at Plan Commission before going to ZBA for variance.</li> </ul>	
<ul style="list-style-type: none"> <li>• Possible concerns with this approach include:               <ul style="list-style-type: none"> <li>○ Could lead to gradual building up of grade over time. A house could gain 2+ feet over natural grade, which then becomes established grade for the next project on that site.</li> <li>○ Must define natural grade on a sloping lot.</li> <li>○ The 2-4' numbers are rather arbitrary and would need further discussion.</li> </ul> </li> </ul>	

**Option4: Tie Finished Grade of House to Street, Existing Structure, and Adjacent Homes**

Summary	Draft Ordinance Language
<ul style="list-style-type: none"> <li>• Standards are measurable and objective.</li> </ul>	<p><b>Grading Requirements.</b> The finished grade at the top of the highest foundation wall of the first floor elevation at the front of the structure shall be limited to the greater of the following:</p> <ol style="list-style-type: none"> <li>1. Two feet above the crown of the lowest adjoining street or</li> <li>2. The elevation of the previous structure or the average of elevations of adjacent homes, whichever is less.</li> </ol>
<ul style="list-style-type: none"> <li>• Standards can be uniform for the entire community while allowing flexibility for different topographic conditions.</li> </ul>	
<ul style="list-style-type: none"> <li>• Can be administered easily and objectively by staff.</li> </ul>	

**PLAN COMMISSION STAFF REPORT  
CITY OF MONONA**

**MEETING: October 10, 2016  
AGENDA ITEM 6A & 6B  
CASE NO. S-008-2016**

**Project:** Public Hearing and Consideration of Recommendation to Council Regarding Proposed Floodplain Map and Ordinance Amendment Resulting from Construction of the MMSD Pump Station 18  
**Project Address:** 1000 E Broadway  
**Applicants:** Madison Metropolitan Sewerage District & Consultant AECOM

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**Proposal Summary:**

Please review the attached background letter from Darrin Pope, the City's consultant engineer at Vierbicher Associates dated September 6, 2016. Attached to Mr. Pope's letter are the plans and background information provided by MMSD's consultant AECOM.

**Applicable Regulations, Policy, or Practice:**

As noted in Mr. Pope's letter, the ordinance sections dictating this process are Sections 13-2-1(e)(2) Official Maps and Revisions, 13-2-1(e)(5) Removal of Lands from Floodplain, and 13-2-10 Amendments. These sections are copied and attached. The application is scheduled for a public hearing and recommendation to Council at this October 10, 2016 Plan Commission meeting.

**Recommendation:**

A Plan Commission recommendation to the City Council to approve the ordinance language and map revision as described on the attached Resolution is recommended.

**Resolution No. \_\_\_\_\_**  
**Monona Common Council**

**Amendment of the Monona Floodplain Zoning Map According to the FEMA Letter of Map Revision (LOMR) Submitted by the Owners of the Property at 1000 East Broadway, the Madison Metropolitan Sewerage District Pump Station 18**

**WHEREAS**, Madison Metropolitan Sewerage District (MMSD) completed construction of Pumping Station No. 18 (PS 18) in Spring 2015 at 1000 E Broadway and prior to construction of the pumping station, portions of the parcel were located in the floodplain of an unnamed tributary to Lake Waubesa and in order to remove these portions of the parcel from the floodplain, fill was placed on the MMSD PS 18 parcel; and

**WHEREAS**, MMSD's consultant AECOM completed hydraulic analysis of the fill to determine its effect on the base flood elevation and floodplain and this analysis indicated that the fill did not change the base flood elevation, however, the analysis indicated that the floodway would change from what is currently shown on FEMA's Flood Insurance Rate Map (FIRM) 55025C0437G for the City of Monona; and

**WHEREAS**, as shown in documentation attached as Figure E-1 submitted by AECOM, the floodway on the MMSD property, the two Whitehorse properties on the east side of the tributary, and the WDNR property to the south of the MMSD property have changed as a result of the fill placed; and

**WHEREAS**, placement of the fill and its effects on the floodway were approved by FEMA and the WDNR and FEMA issued a Conditional Letter of Map Revision (CLOMR) on April 12, 2015 to approve the proposed placement of the fill, and a Letter of Map Revision (LOMR) on August 15, 2016 based on an as-built survey of the placed fill; and

**WHEREAS**, the LOMR revised FEMA's FIRM 55025C0437G for the City of Monona and due to the request for removal of lands from the floodplain and change to the floodway, the City's floodplain zoning district boundaries need to be amended as required by FEMA, the WDNR and Sections 13-2-1(e)(2) and 13-2-1(e)(5) of the City of Monona Code of Ordinances; and

**WHEREAS**, a public hearing noticed by a Class II Notice was held on October 10, 2016 and the Plan Commission passed a motion to approve and recommend approval of the map amendment to the City Council.

**NOW, THEREFORE, BE IT RESOLVED**, by the Common Council of the City of Monona, Dane County, Wisconsin, that the City of Monona Floodplain Zoning Map is amended to remove portions of the aforementioned parcels from the floodplain due to fill placed and to show the change of the floodway on FEMA's FIRM 55025C0437G on the MMSD property, the two Whitehorse properties on the east side of the tributary, and the WDNR property to the South of the MMSD property as a result of the fill placed and to adopt the following additional ordinance language below under Sec. 13-2-1(e)(2):

- g. Flood Insurance Rate Map 55025C0437G and corresponding Flood Insurance Study data for West Unnamed Tributary to Lake Waubesa, as revised by FEMA Letter of Map Revision Case Number 16-05-3951P with effective date of December 30, 2016.

Adopted this \_\_\_\_ day of \_\_\_\_, 2016.

BY ORDER OF THE CITY COUNCIL  
CITY OF MONONA, WISCONSIN

\_\_\_\_\_  
Bob Miller  
Mayor

ATTEST:

\_\_\_\_\_  
Joan Andrusz  
City Clerk

Requested By: AECOM

Approval Recommended By: Plan Commission

Drafted By: Sonja Reichertz, City Planner and Economic Development Director

Approved As To Form By:

Council Action:

Date Introduced: 10/17/16

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

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

### **13-2-1(e)(2)**

**Official Maps and Revisions.** The boundaries of all floodplain districts are designated as AE, AH, AO or A1-30 on the maps based on the Flood Insurance Study (FIS) listed below. Any change to the base flood elevations (BFE) or any changes to the boundaries of the floodplain or floodway in the FIS or on the Flood Insurance Rate Map (FIRM) must be reviewed and approved by the DNR and FEMA through the Letter of Map Change process (see s. 13-2-10 *Amendments*) before it is effective. No changes to RFE's on non-FEMA maps shall be effective until approved by the DNR. These maps and revisions are on file in the office of the zoning administrator. If more than one map or revision is referenced, the most restrictive information shall apply. Any maps referenced in this section must be approved by the DNR and be more restrictive than those based on the FIS at the site of the proposed development. The maps designated below are hereby adopted and made part of this Chapter. They are on file in the office of the Zoning Administrator of the City of Monona:

- a. United States Geological Survey Madison East Quadrangle Map dated 1983.
- b. Wisconsin Wetland Inventory Maps stamped "FINAL" on January 28, 1986.
- c. Floodplain zoning maps entitled "The Flood Insurance Rate Map (FIRM) Dane County, Wisconsin and Incorporated Areas", panels 55025C0428G, 55025C0436G, 55025C0437G, and 55025C0441G, prepared by the Federal Emergency Management Agency (FEMA), dated January 2, 2009; panel 55025C0429H, dated September 17, 2014, with corresponding profiles that area based on the Dane County Flood Insurance Study, volumes 55025CV001C and 55025CV002C, dated September 17, 2014, prepared in connection therewith.
- d. City of Madison, Village of Maple Bluff Flood Storage District, Panel 19 of 21, dated September 17, 2014. Prepared by the WDNR. Approved by the WDNR.
- e. City of Fitchburg, City of Monona Flood Storage District, Panel 20 of 21, dated September 17, 2014. Prepared by the WDNR. Approved by the WDNR.
- f. Comprehensive Zoning Base Maps titled City of Monona Zoning Map and dated November 17, 1980 or latest version.

### **13-2-1(e)(5)**

**Removal of Lands From Floodplain.** Compliance with the provisions of this Chapter shall not be grounds for removing land from the floodplain unless it is filled at least two feet above the regional or base flood elevation, the fill is contiguous to land outside the floodplain, and the map is amended pursuant to sec. 13-2-10 *Amendments*.

### **13-2-10**

**Amendments.** Obstructions or increases may only be permitted if amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with s. 13-2-10(a).

In AE Zones with a mapped floodway, no obstructions or increases shall be permitted unless the applicant receives a Conditional Letter of Map Revision from FEMA and amendments are made to this

ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with s. 13-2-10(a). Any such alterations must be reviewed and approved by FEMA and the DNR.

In A Zones increases equal to or greater than 1.0 foot may only be permitted if the applicant receives a Conditional Letter of Map Revision from FEMA and amendments are made to this ordinance, the official floodplain maps, floodway lines, and water surface profiles, in accordance with s. 13-2-10(a).

**General.** The Common Council may change or supplement the floodplain zoning district boundaries and this Chapter in the manner outlined in s. (b) below. Actions which require an amendment to the ordinance and/ or submittal of a Letter of Map Change (LOMC) include, but are not limited to, the following:

1. Any fill or floodway encroachment that obstructs flow causing any increase in the regional flood height;
2. Any change to the floodplain boundaries and/or watercourse alterations on the FIRM;
3. Any changes to any other officially adopted floodplain maps listed in s, 13-2-1(e)(2);
4. Any floodplain fill which raises the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain.
5. Correction of discrepancies between the water surface profiles and floodplain maps;
6. Any upgrade to a floodplain zoning ordinance text required by s. NR 116.05, Wis. Adm. Code, or otherwise required by law, or for changes by the City.
7. All channel relocations and changes to the maps to alter floodway lines or to remove an area from the floodway or the floodfringe that is based on a base flood elevation from a FIRM requires prior approval by FEMA.

**Procedures.** Ordinance amendments may be made upon petition of any party according to the provisions of s. 62.23, Stats. The petitions shall include all data required by sec. 13-2-5(d) and 13-2-8(a)(2). The Land Use Permit shall not be issued until a Letter of Map Revision is issued by FEMA for the proposed changes.

- a. The proposed amendment shall be referred to the Plan Commission for a public hearing and recommendation to the Common Council. The amendment and notice of public hearing shall be submitted to the Department Regional office for review prior to the hearing. The amendment procedure shall comply with the provisions of s. 62.23, Stats.
- b. No amendments pursuant to this section shall become effective until reviewed and approved by the Department.
- c. All persons petitioning for a map amendment that obstructs flow, causing any increase in the regional flood height shall obtain flooding easements or other appropriate legal arrangements from all adversely affected property owners and notify local units of government before the amendment can be approved by the Common Council.



September 6, 2016

Ms. Sonja Reichertz – Planning & Community Development Coordinator  
Plan Commission & Common Council  
City of Monona  
5211 Schluter Road **VIA EMAIL**  
Monona, WI 53716

Re: Request for Removal of Lands from Floodplain & City Floodplain Map Amendment  
Madison Metropolitan Sewerage District Pump Station 18, Monona, WI

Dear Sonja, Plan Commission & Common Council:

As you are aware, Madison Metropolitan Sewerage District (MMSD) constructed Pumping Station No. 18 (PS 18) on the south side of East Broadway adjacent to the UW Yahara Clinic and Whitehorse properties. Construction of the pumping station was completed in spring of 2015. Prior to construction of the pumping station, portions of the parcel were located in the floodplain of an unnamed tributary to Lake Waubesa. In order to remove these portions of the parcel from the floodplain, fill was placed on the MMSD PS 18 parcel.

MMSD's consultant (AECOM) completed hydraulic analysis of the fill to determine its effect on the base flood elevation and floodplain. This analysis indicated that the fill did not change the base flood elevation. However, the analysis indicated that the floodway would be change from what is currently shown on FEMA's Flood Insurance Rate Map (FIRM) 55025C0437G for the City of Monona. As shown in the attached Figure E-1 provided by AECOM, the floodway on the MMSD property, the two Whitehorse properties on the east side of the tributary, and the WDNR property to the south of the MMSD property have changed as result of the placed fill.

Placement of the fill and its effects on the floodway were approved by the Federal Emergency Management Agency (FEMA) and Wisconsin Department of Natural Resources. FEMA issued a Conditional Letter of Map Revision (CLOMR) on April 12, 2015 to approve the proposed placement of the fill, and a Letter of Map Revision (LOMR) on August 15, 2016 based on an as-built survey of the placed fill. The LOMR revised FEMA's Flood Insurance Rate Map (FIRM) 55025C0437G for the City of Monona. FEMA's FIRMS are the City's official Floodplain Maps.

#### **City Official Floodplain Map Amendment Process:**

Due to the request for removal of lands from the floodplain, and change to the floodway, the City's floodplain zoning district boundaries, as shown on the City's Official Floodplain Maps (FEMA FIRM 55025C0437G), need to be amended as required by FEMA, the WDNR, and Sections 13-2-1(e)(2) and 13-2-1(e)(5) of the City of Monona Code of Ordinances.

**The following requirements from Sections 13-2-1, 13-2-5(d), and procedures for amendments from Section 13-2-10 of the city's ordinances are as follows:**

1. Submittal of an aerial photograph or plan showing the general floodplain district limits, stream channel, legal description of property, fill limits and elevations. (Figures E-1 & E-2 provided by AECOM, MMSD's Engineer)
2. Information required by WDNR to evaluate the effects of the proposed fill upon flood height and flood flows, BFE and to determine floodway boundaries. (Information contained in "Letter of Map Revision Request" dated March 2016 and provided by AECOM, MMSD's Engineer).
3. WDNR and FEMA approval of changes to the floodway and removal of lands from the floodplain. (WDNR approval letter issued June 15, 2016 and FEMA LOMR issued August 10, 2016)
4. Verification that the fill has been placed at least two feet above the BFE and the fill is contiguous to land outside the floodplain. (Certified As-Built conditions Figure E-1 stamped 5/25/16 by Carla Fischer, PE of AECOM, MMSD's Engineer).
5. Referral of the amendment request to the Plan Commission for a public hearing (Class II Notification = two publications required) and a recommendation to the Common Council.

**Schedule:**

As coordinated with Sonja, the amendment schedule is proposed as follows:

- |  |               |
|--|---------------|
| 1. City Submits Public Notice & Amendment Resolution Text to WDNR: | Sep. 9        |
| 2. WDNR Reviews Public Notice & Amendment Resolution Text:         | Sep. 12 to 14 |
| 3. Submit Public Hearing Notice to Newspaper:                      | Sep. 16       |
| 4. Two Publications in Monona Herald Independent:                  | Sep. 22 & 29  |
| 5. City Planning Commission Meeting & Public Hearing:              | Oct. 10       |
| 6. City Council Meeting 1 <sup>st</sup> Reading:                   | Oct. 17       |
| 7. City Council Meeting 2 <sup>nd</sup> Reading:                   | Nov. 7        |

The documents referenced above are attached for your use. As discussed, with Sonja, I will be available to attend the plan commission meeting and city council meetings to answer any questions regarding our review, and the FEMA and City Floodplain Map Amendment processes.

If you have any questions, please contact me at our Madison office.

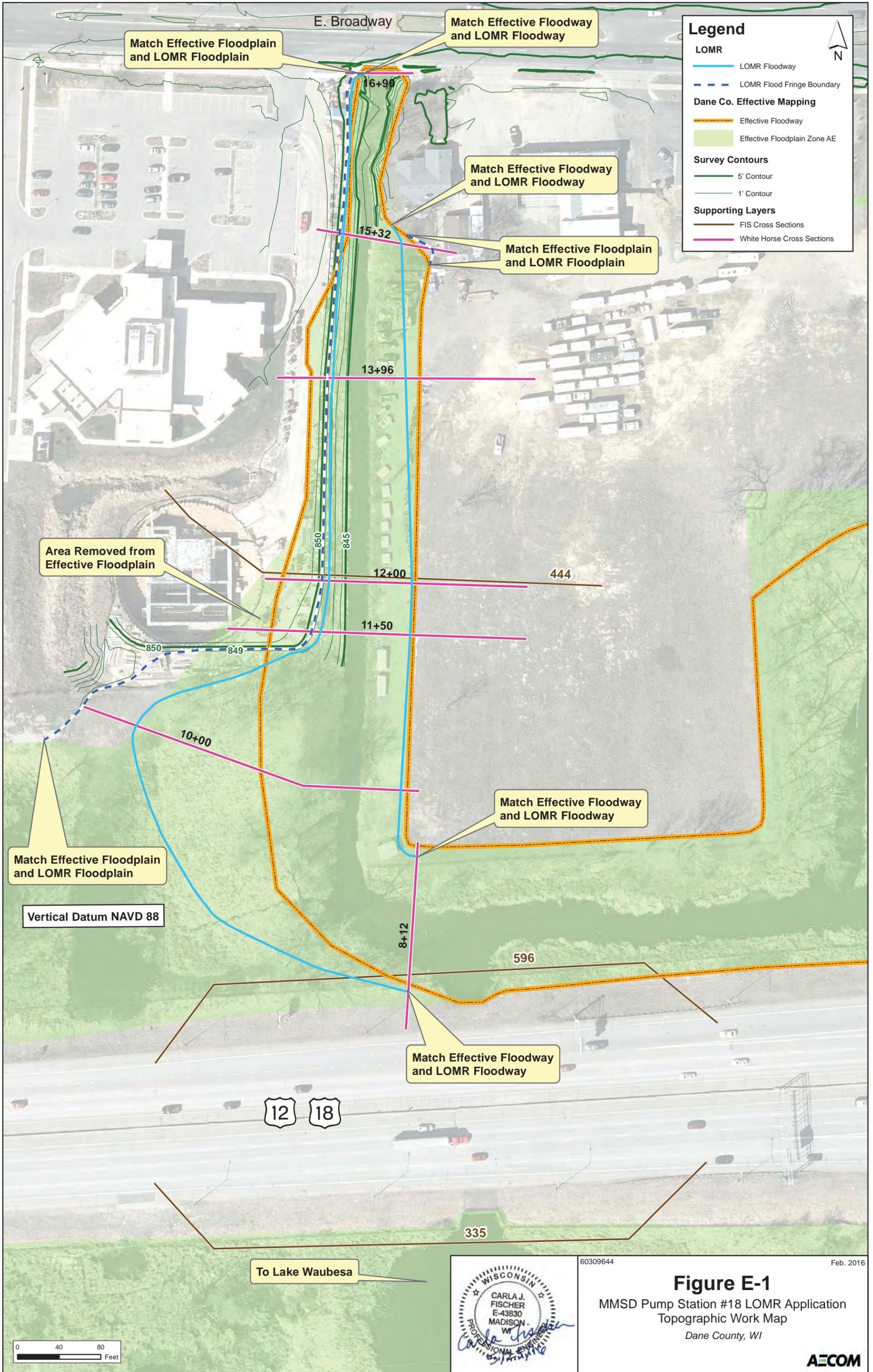
Sincerely,  
VIERBICHER ASSOCIATES, INC.



Darrin R. Pope, PE

DRP/drp

Enclosures



**Legend**

**LOMR**

- LOMR Floodway
- LOMR Flood Fringe Boundary

**Dane Co. Effective Mapping**

- Effective Floodway
- Effective Floodplain Zone AE

**Survey Contours**

- 5' Contour
- 1' Contour

**Supporting Layers**

- FIS Cross Sections
- White Horse Cross Sections

Vertical Datum NAVD 88

Match Effective Floodplain and LOMR Floodplain

Area Removed from Effective Floodplain

Match Effective Floodplain and LOMR Floodplain

Match Effective Floodway and LOMR Floodway

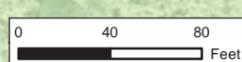
Match Effective Floodway and LOMR Floodway

Match Effective Floodplain and LOMR Floodplain

Match Effective Floodway and LOMR Floodway

Match Effective Floodway and LOMR Floodway

To Lake Waubesa



60309644 Feb. 2016

**Figure E-1**  
 MMSD Pump Station #18 LOMR Application  
 Topographic Work Map  
 Dane County, WI

**AECOM**

Figure E-2

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 18. The horizontal datum was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA NNGS12  
National Geodetic Survey  
SSMC-3, #6202  
1215 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was provided by Dane County Land Information Office and Fly Dane Partnership. The aerial photography was acquired in the spring of 2005 to create a 1" 200' scale digital orthophotos with 1-foot ground resolution and resampled to a 1-meter ground resolution.

Based on updated topographic information, this map reflects more detailed and up-to-date stream channel configurations and floodplain delineations than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unreviewed streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

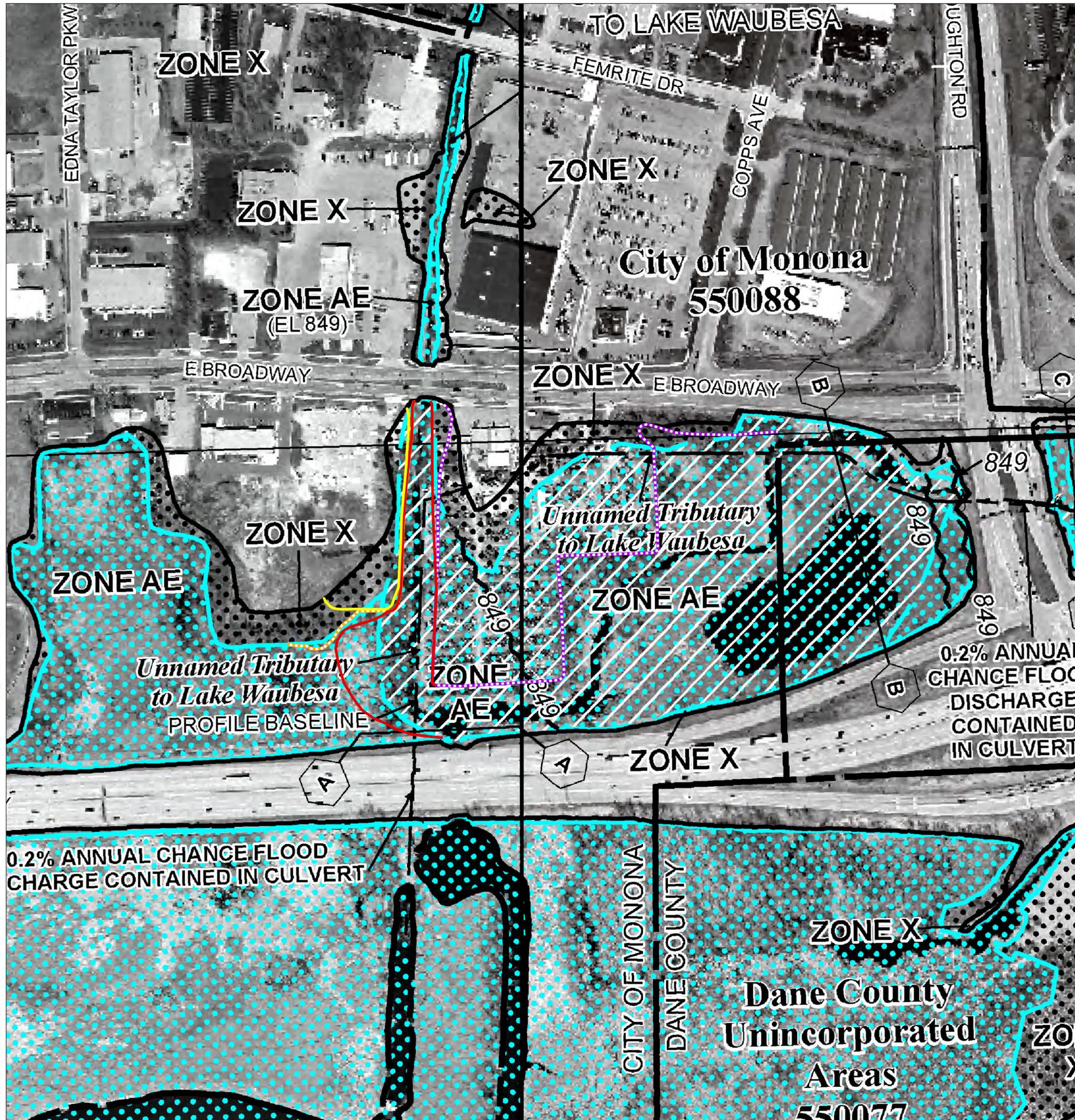
Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9618 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.nsc.fema.gov>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.

Legend

-  LOMR Zone X
-  LOMR Floodway
-  LOMR Flood Fringe
-  Whitehorse CLOMR Flood Fringe



LEGEND

-  SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
-  ZONE A: No Base Flood Elevations determined.
-  ZONE AE: Base Flood Elevations determined.
-  ZONE AH: Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
-  ZONE AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined; For areas of alluvial fan flooding, velocities also determined.
-  ZONE AR: Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
-  ZONE ARB: Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
-  ZONE V: Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
-  ZONE VE: Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
-  FLOODWAY AREAS IN ZONE AE
-  OTHER FLOOD AREAS
-  ZONE X: Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
-  OTHER AREAS
-  ZONE X: Areas determined to be outside the 0.2% annual chance floodplain.
-  ZONE D: Areas in which flood hazards are undetermined, but possible.
-  COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
-  OTHERWISE PROTECTED AREAS (OPAs)
-  CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
-  1% Annual Chance Floodplain Boundary
-  0.2% Annual Chance Floodplain Boundary
-  Floodway boundary
-  Zone boundary
-  CBRS and OPA boundary
-  Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, Flood depths or flood velocities.
-  Base Flood Elevation line and value; elevation in feet
-  Base Flood Elevation value where uniform within zone; elevation in feet
-  Referenced to the North American Vertical Datum of 1988
-  Cross section line
-  Transect line
-  Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
-  5000-foot ticks: Wisconsin State Plane South Zone (FIPS Zone 4803), Lambert Conformal Conic projection
-  1000-meter Universal Transverse Mercator grid values, zone 18N
-  Bench mark (see explanation in Notes to Users section of this FIRM panel)
-  River Mile
-  MAP REPOSITORIES: Refer to Map Repository list on Map Index
-  EFFECTIVE DATE OF COUNTY-WIDE FLOOD INSURANCE RATE MAP: June 17, 2009
-  EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL: January 2, 2009 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, to reflect updated topographic information, and to incorporate previously issued letters of Map Revision.
-  For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for the jurisdiction.
-  To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6622.

PANEL 0437G

**FIRM**  
FLOOD INSURANCE RATE MAP

DANE COUNTY,  
WISCONSIN  
AND INCORPORATED AREAS

PANEL 437 OF 850  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DANE COUNTY	550077	3437	3
MADISON CITY OF	550063	3437	3
MCPHARLAND VILLAGE OF	550066	3437	3
MONONA CITY OF	550068	3437	3

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER  
55025C0437G  
MAP REVISED  
JANUARY 02, 2009  
Federal Emergency Management Agency



Prepared for:  
MMSD  
Madison, Wisconsin

Prepared by:  
AECOM  
Middleton, Wisconsin  
60309644  
March 2016

Letter of Map Revision Request  
Madison Metropolitan Sewerage District  
Pumping Station 18  
Monona, WI; Dane County, WI

FEMA Case No. 12-05-1016R



Prepared for:  
MMSD  
Madison, Wisconsin

Prepared by:  
AECOM  
Middleton, Wisconsin  
60309644  
March 2016

# Letter of Map Revision Request Madison Metropolitan Sewerage District Pumping Station 18 Monona, WI; Dane County, WI

FEMA Case No. 12-05-1016R

***Prepared by:***

Carla Fischer, PE  
Prepared By

Theran Jacobson, P.E.  
Reviewed By

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Appendix D Hydraulic Results

Appendix E Post-Project Floodplain Maps

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Appendix G FEMA CLOMR Approval Letter

## 1.0 Introduction

Madison Metropolitan Sewerage District (MMSD) is preparing this Letter of Map Revision (LOMR) request to complete the CLOMR (case number 12-05-1016R) approved by FEMA on April 12, 2012. FEMA's approval letter is included in Appendix G. The project, located in the City of Monona, Wisconsin, involved grading and filling along an unnamed tributary to Lake Waubesa. The grading and filling was required to prepare an area outside of the floodplain for the construction of new sanitary sewer Pumping Station 18. Construction of Pumping Station 18 was started in the fall of 2013 and completed in the spring of 2015, with as-built survey completed in August 2015.

Appendix references A through F throughout this report indicate LOMR replacement information based upon as-built conditions. Appendix G is a new appendix.

### 1.1 Project Location

See attached Figure 1 Project Location Map in Appendix A, which is unchanged from what was submitted for the CLOMR.

### 1.2 Summary of Completed Work

This project consisted of construction of a pumping station to improve sanitary sewer conveyance to the MMSD's Nine Springs Waste Water Treatment Plant (WWTP).

Fill was placed in the property owned by MMSD, west of the unnamed tributary to Lake Waubesa, to prepare an area outside of the floodplain for the construction of new sanitary sewer Pumping Station 18.

See attached Figure 2 LOMR Application HEC-RAS Cross Sections in Appendix A showing locations of cross sections used in the HEC-RAS model. The plan sheet located Appendix B shows the post-project conditions.

### 1.3 MT-2 Forms

The MT-2 Forms included with this report include the following:

- Overview & Concurrence form
- Riverine Hydrology & Hydraulics form

These forms are located in Appendix C.

## 2.0 Effective Model

See CLOMR. No changes for LOMR.

## **3.0 Effective Conditions**

### **3.1 Hydrologic Model**

See CLOMR. No changes for LOMR.

### **3.2 Hydraulic Model**

See CLOMR. No changes for LOMR.

#### **3.2.1 Duplicate Effective Hydraulic Model**

See CLOMR. No changes for LOMR.

#### **3.2.2 Duplicate Effective Hydraulic Model Results**

See CLOMR. No changes for LOMR.

#### **3.2.3 Corrected Effective Hydraulic Model**

See CLOMR. No changes for LOMR.

#### **3.2.4 Corrected Effective Hydraulic Model Results**

See CLOMR. No changes for LOMR.

## 4.0 Post-Project (As-Built) Conditions

### 4.1 Hydrologic Changes

See CLOMR. No changes for LOMR.

### 4.2 Hydraulic Changes

The Corrected Effective hydraulic data, which represent Pre-Project conditions, was used as the baseline for the Post-Project (As-Built) hydraulic data.

The LOMR for the Whitehorse property, Case No. 12-05-5696P effective March 15, 2013, was reviewed to determine if changes had been made since the Whitehorse CLOMR was submitted. It was determined that no changes to the cross sections had been made from the Whitehorse CLOMR submittal; however, the reach lengths in the Whitehorse LOMR model had been adjusted at Sta. 16+90 and 15+32 to better reflect actual conditions. The MMSD Pumping Station 18 CLOMR submittal had identified downstream reach lengths in the Whitehorse CLOMR model as incorrect and had adjusted cross section downstream reach lengths to reflect survey locations. Therefore, no reach lengths were changed from what had been submitted in the MMSD Pumping Station CLOMR.

#### 4.2.1 Cross Section Modifications

Cross Sections throughout the project corridor were modified from the Corrected Effective (Pre-Project) conditions as outlined below.

- Cross sections 15+32, 13+96, 12+00, and 11+50 were modified to reflect the as-built survey of the fill on the MMSD site, which impacted the west side of the channel.

#### 4.2.2 Post-Project Hydraulic Model Updates

The updates to the geometry include the work performed for the MMSD Pumping Station 18 project reflected in the the project site's post-construction topographic survey from August 31, 2015. Changes to the geometry included side slope grading to facilitate construction of sanitary sewer interceptor, force main, and driveway for access to the pumping station. The Post-Project geometry file includes the project area and all reaches upstream and downstream affected by the proposed improvements, as required by FEMA and the WDNR. Figure 2 in Appendix A shows the cross section locations.

The tie-in location at the upstream end of the reach is at cross section 16+90 and the Post-Project WSEL is equal to (less than 0.01-ft change) the Pre-Project floodplain elevation at the tie-in location.

The tie-in location at the south end of the reach is at cross section 8+12 and the Post-Project WSEL is equal to the Pre-Project floodplain elevation at the tie-in location.

LOMR modeling results show a slightly greater decrease in the Post-Project floodplain elevations than the CLOMR results.

### 4.3 Floodway Boundaries

The floodway boundaries for the Corrected Effective geometry file were based upon the ineffective flow limits or the floodplain limits. The Post-Project floodway boundaries were updated in the project corridor to reflect the grading and filling performed. Figure E-1 in Appendix E displays the Post-project floodway and floodfringe overlaid on the project site's post-construction topographic survey from August 31, 2015. The Post-Project floodway boundaries overlaid on the Flood Insurance Rate Map (FIRM) are also included in Appendix E.

#### 4.4 Post-Project Hydraulic Results

The comparison between the Post-Project Model and Corrected Effective Model resulted in slight changes to the 100-year floodplain elevations at several cross sections. These changes include:

- Cross Section 16+90: The water surface elevation (WSEL) decreased 0.003 feet.
- Cross Section 15+32: The water surface elevation (WSEL) increased 0.004 feet.
- Cross Section 13+96: The water surface elevation (WSEL) decreased 0.001 feet.
- Cross Section 12+00: The water surface elevation (WSEL) increased 0.001 feet.
- Cross Section 11+50: The water surface elevation (WSEL) decreased 0.001 feet.

See Table D-3 in Appendix D.

## 5.0 Digital Data

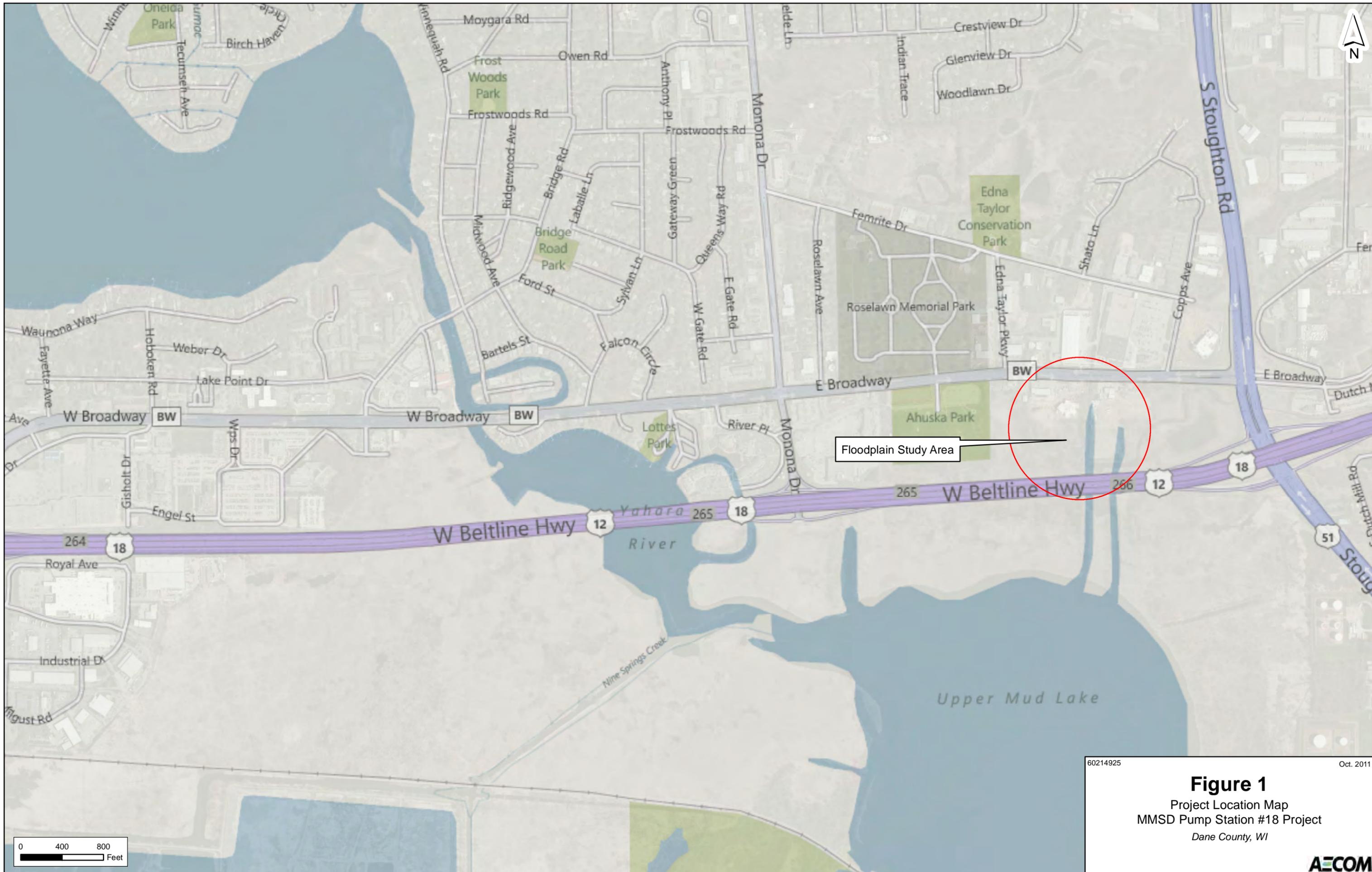
Appendix F includes reference to digital data, which is included as a .zip file. The following data is included:

- The HEC-RAS version 4.1.0 model, which includes plans for Duplicate Effective, Corrected Effective, and Post-Project conditions.
- GIS shapefiles, including the Post-Project floodway and floodfringe for the 1% recurrence interval and the flooding extents of the Post-Project 0.2% recurrence interval.
- Post-project survey CAD file, which includes updated survey data on the west side of the channel where grading was modified from existing conditions.

## **Appendix A**

### **Project Maps**

- Figure 1 – Project Location Map
- Figure 2 – HEC-RAS Cross Sections



60214925 Oct. 2011

**Figure 1**  
Project Location Map  
MMSD Pump Station #18 Project  
Dane County, WI



**Legend**

**Cross sections**

- LOMR
- FIS

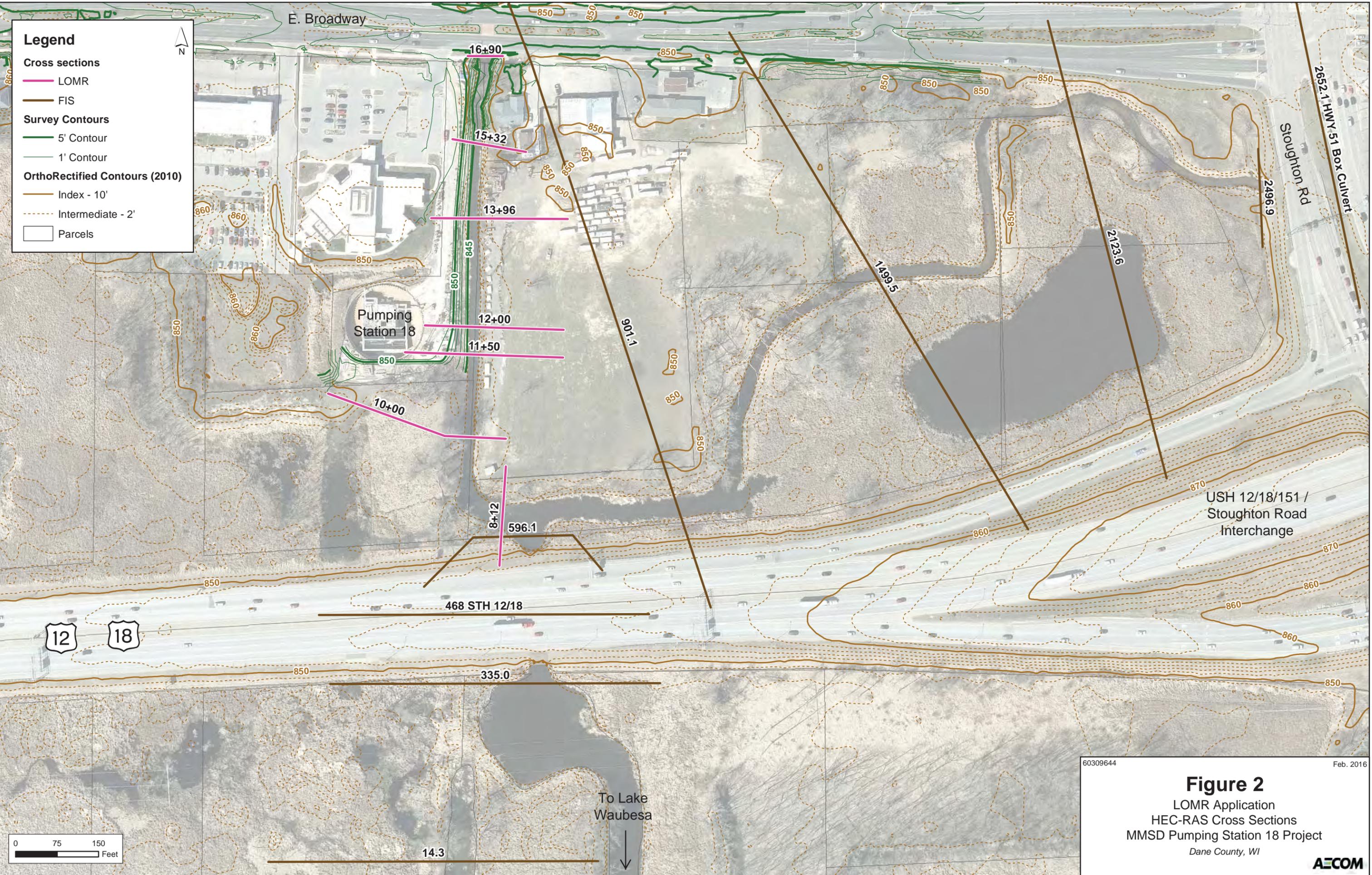
**Survey Contours**

- 5' Contour
- 1' Contour

**OrthoRectified Contours (2010)**

- Index - 10'
- Intermediate - 2'

Parcels



60309644 Feb. 2016

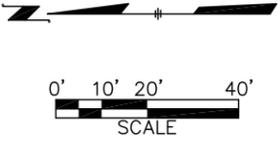
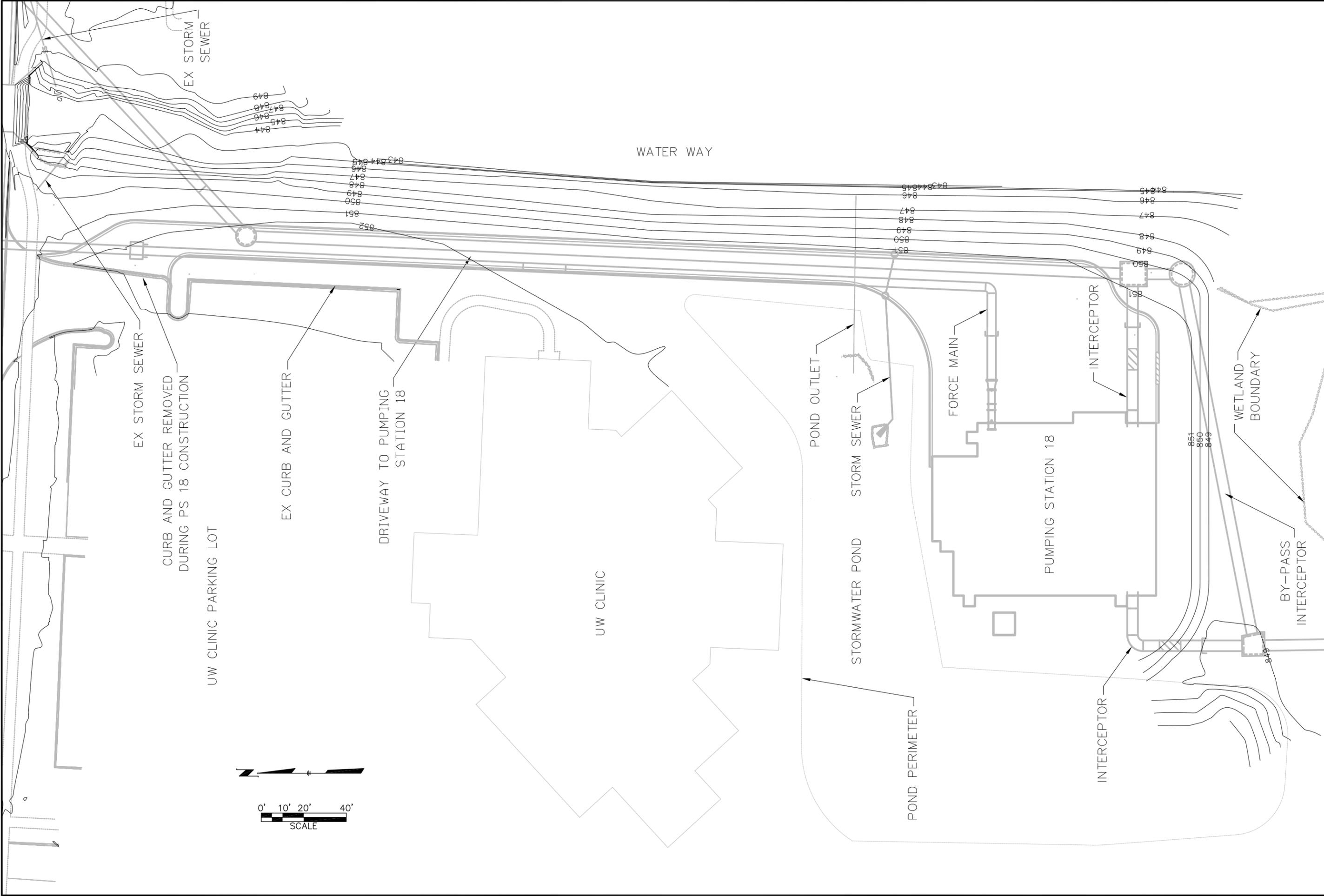
**Figure 2**  
 LOMR Application  
 HEC-RAS Cross Sections  
 MMSD Pumping Station 18 Project  
 Dane County, WI

**AECOM**

## **Appendix B**

### **Project Plan**

- Post-Project Site Plan



AECOM 1350 DEMING WAY SUITE 100 MIDDLETON, WI 53562 (608) 836-9800 DRN/CJF DES/CJF		NO	REVISIONS	DRN/CHK	DATE
PUMPING STATION 18 MADISON METROPOLITAN SEWERAGE DISTRICT POST-PROJECT SITE PLAN					
DATE	MAR 2016				
PROJECT NO	60309644				
FILENAME	PS 18 SITE.dwg				
SHEET NO	1 OF 1				
DRAWING NO	SB-1				

## **Appendix C**

### **MT-2 Forms**

- Overview & Concurrence Form
- Riverine Hydrology & Hydraulics Form

DEPARTMENT OF HOMELAND SECURITY  
**FEDERAL EMERGENCY MANAGEMENT AGENCY**  
**OVERVIEW AND CONCURRENCE FORM**

**OMB NO. 1660-0016**  
**Expires May 31, 2017**

**PAPERWORK BURDEN DISCLOSURE NOTICE**

Public reporting burden for this form is estimated to average 1 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless it displays a valid OMB control number. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC, 20472-3100 Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

**PRIVACY ACT STATEMENT**

**AUTHORITY:** The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

**PRINCIPAL PURPOSE(S):** This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

**ROUTINE USE(S):** The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP); Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990.

**DISCLOSURE:** The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM).

**A. REQUESTED RESPONSE FROM DHS-FEMA**

This request is for a: (check one)

- CLOMR: A letter from DHS-FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision, or proposed hydrology changes (See 44 CFR Ch. 1, Parts 60, 65 & 72).
- LOMR: A letter from DHS-FEMA officially revising the current NFIP map to show the changes to floodplains, regulatory floodway, or flood elevations. (See 44 CFR Ch. 1, Parts 60, 65 & 72).

**B. OVERVIEW**

1. The NFIP map panel(s) affected for all impacted communities is (are):

Community No.	Community Name	State	Map No.	Panel No.	Effective Date
Ex: 480301 480287	City of Katy Harris County	TX TX	48473C 48201C	0005D 0220G	02/08/83 09/28/90
550088	City of Monona Dane County	WI	55025C	0437G	01/02/2009

2. a Flooding Source: Unnamed Tributary to Lake Waubesa

- Riverine    Coastal    Shallow Flooding (e.g., Zones AO and AH)    Alluvial fan    Lakes    Other (Attach Description)

3. Project Name/Identifier: MMSD Pump Station 18

4. FEMA Zone designations affected: AE, X                      (Choices A, AH, AO, A1-A30, A99, AE, AR, V, V1-V30, VE, B, C, D, X)

5. Basis for Request and Type of Revision: MMSD Pump Station 18 As-Built

- Physical Change                       Improved Mehtodology/Data                       Regulatory Floodway Revision                       Base Map Changes
- Coastal Analysis                       Hydraulic Analysis                       Hydrologic Analysis                       Corrections
- Weir-Dam Changes                       Levee Certification                       Alluvial Fan Analysis                       Natural Changes
- New Topographic Data                       Other (attach Description)
- Channelization                       Levee/Floodwall                       Bridge/Culvert
- Dam                       Fill                       Other (Attach Description)

DEPARTMENT OF HOMELAND SECURITY  
 FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OVERVIEW AND CONCURRENCE FORM**

OMB NO. 1660-0016  
 Expires May 31, 2017

C. REVIEW FEE	
Has the review fee for the appropriate request category been included?	<input checked="" type="checkbox"/> Yes, Fee Amount: \$ <u>8000</u> <input type="checkbox"/> No, Attach Explanation
Please see the DHS-FEMA website at <a href="http://fema.gov/plan/prevent/fhm/fm_fees.shtm">http://fema.gov/plan/prevent/fhm/fm_fees.shtm</a> for Fee Amounts and Exemptions.	

D. SIGNATURE		
All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States code, Section 1001.		
Name <b>Bruce Borelli, Director of Engineering</b>	Company <b>Madison Metropolitan Sewerage District</b>	
Mailing Address <b>1610 Moorland Road Madison, WI 53719-3398</b>	Daytime Telephone No. <b>608-222-1201</b>	FAX No. <b>608-222-2703</b>
	EMAIL ADDRESS <b>bruceb@madsewer.com</b>	
Signature Of Requester (Required) <i>B. Borelli</i>	Date <b>03-24-2016</b>	

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional a LOMR, will be obtained. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44 CFR 65.2(c), and that we have available upon request by DHS-FEMA, all analyses and documentation used to make this determination.

Community Official's Name and Title <b>Sonja Reichertz, City Planner and Economic Development Director</b>	Date
Mailing Address <b>5211 Schluter Road Monona, WI 53716</b>	Daytime Telephone No. <b>608-222-2525</b>
	FAX No. <b>N/A</b>
EMAIL ADDRESS <b>sreichertz@ci.monona.wi.us</b>	
Community Official's signature (required) <i>Sonja Reichertz</i>	Date <b>4-5-2016</b>

**CERTIFICATION BY REGISTRATION PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR**

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting information as per NFIP regulations paragraph 65.2(b) and as described in the MT-2 Forms Instructions. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name <b>Carla Fischer, PE</b>	License No. <b>E-43830 (WI)</b>	Expiration Date <b>07/31/2016</b>
Company Name <b>AECOM</b>	Telephone No. <b>608-828-8128</b>	Fax No. <b>608-836-9767</b>
Signature <b>Fischer, Carla</b>		Date <b>3/24/2016</b>

**Ensure the forms that are appropriate to your revision request are included in your submittal.**

<p><b>Form name and (Number)</b></p> <p><input checked="" type="checkbox"/> Riverine Hydrology &amp; Hydraulics Form (Form 2)</p> <p><input type="checkbox"/> Riverine Structures Form (Form 3)</p> <p><input type="checkbox"/> Coastal Analysis Form (Form 4)</p> <p><input type="checkbox"/> Coastal Structures Form (Form 5)</p> <p><input type="checkbox"/> Alluvial Fan Flooding Form (Form 6)</p>	<p><b>Required if....</b></p> <p>New or revised discharges or water-surface elevations</p> <p>Channel is modified, addition/revision of bridge/culverts, addition/revision of levee/floodwall, addition/revision of dam</p> <p>New or revised coastal elevations</p> <p>Addition/revision of coastal structure</p> <p>Flood control measures on alluvial fans</p>	<div style="border: 1px solid black; width: 100%; height: 100%; display: flex; align-items: center; justify-content: center;"> </div> <p>Seal (optional)</p>
---	---	--

**PAPERWORK BURDEN DISCLOSURE NOTICE**

Public reporting burden for this form is estimated to average 3.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC, 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

**PRIVACY ACT STATEMENT**

**AUTHORITY:** The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

**PRINCIPAL PURPOSE(S):** This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

**ROUTINE USE(S):** The information on this form may be disclosed as generally permitted under 5 U.S.C § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA/NFIP/LOMA-1 National Flood Insurance Program (NFIP); Letter of Map Amendment (LOMA) February 15, 2006, 71 FR 7990.

**DISCLOSURE:** The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM).

Flooding Source: Unnamed Tributary to Lake Waubesa

Note: Fill out one form for each flooding source studied.

**A. HYDROLOGY**

1. Reason for New Hydrologic Analysis (check all that apply)

- Not revised (skip to section 2)       No existing analysis       Improved data  
 Alternative methodology       Proposed Conditions (CLOMR)       Changed physical condition of watershed

2. Comparison of Representative 1%-Annual-Chance Discharges

Location	Drainage Area (Sq. Mi.)	FIS (cfs)	Revised (cfs)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. Methodology for New Hydrologic Analysis (check all that apply)

- Statistical Analysis of Gage Records       Precipitation/runoff Model \_\_\_\_\_ (TR-20, HEC-1, HEC-HMS, etc.)  
 Regional Regression Equations       Other (please attach description)

Please enclose all relevant models in digital format, maps, computations (including computation of parameters), and documentation to support the new analysis. The document, "Numerical Models Accepted by FEMA for NFIP Usage" lists the models accepted by FEMA. This document can be found at: [http://www.fema.gov/mit/tsd/en\\_modl.htm](http://www.fema.gov/mit/tsd/en_modl.htm).

4. Review/Approval of Analysis.

If your community requires a regional, state, or federal agency to review the hydrologic analysis, please attach evidence of approval/review.

5. Impacts of Sediment Transport on Hydrology

Was sediment transport considered?       Yes       No

If Yes, fill out Section F (Sediment Transport) of Form 3. If No, attach your explanation for why sediment transport was not considered.

DEPARTMENT OF HOMELAND SECURITY  
 FEDERAL EMERGENCY MANAGEMENT AGENCY  
**RIVERINE HYDROLOGY & HYDRAULICS FORM**

OMB NO. 1660-0016  
 Expires May 31, 2017

**B. HYDRAULICS**

1. Reach to be Revised

Water-Surface Elevations (ft.)

	Description	Cross Section	Effective	Proposed/Revised
Downstream Limit	<u>Mouth of drainage ditch</u>	<u>8+12</u>	<u>849.260</u>	<u>849.260</u>
Upstream Limit	<u>DS of E. Broadway struct.</u>	<u>16+90</u>	<u>849.293</u>	<u>849.301</u>

2. Hydraulic Method Used

Hydraulic Analysis HEC-RAS 4.1.0 HEC-2, HEC-RAS, Other (Attach description)

3. Pre-Submittal Review of Hydraulic Models

FEMA has developed two review programs, CHECK-2 and CHECK-RAS to aid in the review of HEC-2 and HEC-RAS hydraulic models, respectively. These review programs verify that the hydraulic estimates and assumptions in the model data are in accordance with NFIP requirements, and that the data are comparable with the assumptions and limitations of HEC-2/HEC-RAS. CHECK-2 and CHECK-RAS identify areas of potential error or concern. These tools do not replace engineering judgement. CHECK-2 and CHECK-RAS can be downloaded from [http://www.fema.gov/mit/tsd/frm\\_soft.htm](http://www.fema.gov/mit/tsd/frm_soft.htm). We recommend that you review your HEC-2 and HEC-RAS models with CHECK-2 and CHECK-RAS. If you disagree with a message, please attach an explanation of why the message is not valid in this case. Review of your submittal and resolution of valid modeling discrepancies will result in reduced review time.

HEC-2/HEC-RAS models reviewed with CHECK-2/CHECK-RAS?  Yes  No

4. Models Submitted

Duplicate Effective Model*	Natural File Name <u>MMSD_FloodStudy.prj</u>	Floodway File Name <u>Effective, *.p06</u>
Corrective Effective Model*	Natural File Name <u>MMSD_FloodStudy.prj</u>	Floodway File Name <u>Corr. Eff., *.p04</u>
Existing or Pre-Project Conditions Model	Natural File Name <u>MMSD_FloodStudy.prj</u>	Floodway File Name <u>Pre-Proj., *.p05</u>
Revised or Post-Project Conditions Model	Natural File Name <u>MMSD_FloodStudy.prj</u>	Floodway File Name <u>Post-Proj., *.p01</u>
Other - (attach description)	Natural File Name _____	Floodway File Name _____

\*Not required for revisions to approximate 1%-annual-chance floodplains (Zone A) - for details, refer to the corresponding section of the instructions.

The document "Numerical Models Accepted by FEMA for NFIP Usage" list the models accepted by FEMA. This document can be found at: [http://www.fema.gov/mit/tsd/en\\_modl.htm](http://www.fema.gov/mit/tsd/en_modl.htm).

**C. MAPPING REQUIREMENTS**

**A certified topographic map** must be submitted showing the following information (where applicable): the boundaries of the effective, existing, and proposed conditions 1%-annual-chance floodplain (for approximate Zone A revisions) or the boundaries of the 1%-and 0.2%-annual-chance floodplains and regulatory floodway (for detailed Zone AE, AO, and AH revisions); location and alignment of all cross sections with stationing control indicated; stream, road, and other alignments (e.g. dams, levees, etc.); current community easements and boundaries; boundaries of the requester's property; certification of a registered professional engineer registered in the subject State; location and description of reference marks; and the referenced vertical datum (NGVD, NAVD, etc.).

Note that the boundaries of the existing or proposed conditions floodplains and regulatory floodway to be shown on the revised FIRM and/or FBFM must tie-in with the effective floodplain and regulatory floodway boundaries. Please attach **a copy of the effective FIRM and/or FBFM**, annotated to show the boundaries of the revised 1%-and 0.2%-annual-chance floodplains and regulatory floodway that tie-in with the boundaries of the effective 1%-and 0.2%-annual-chance floodplain and regulatory floodway at the upstream and downstream limits of the area on revision.

**D. COMMON REGULATORY REQUIREMENTS**

1. For LOMR/CLOMR Requests, do Base Flood Elevations (BFEs) Increase?  Yes  No

For LOMR/CLOMR requests, if either of the following is true, please submit evidence of compliance with Section 65.12 of the NFIP regulations:

- \* The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot compared to pre-project conditions.
- \* The proposed project encroaches upon a SFHA with BFEs established and would result in increases above 1.00 foot.

2. Does the request involve the placement of proposed placement of fill?  Yes  No

DEPARTMENT OF HOMELAND SECURITY  
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**RIVERINE HYDROLOGY & HYDRAULICS FORM**

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If Yes, the community must acknowledge that the area to be removed from the special flood hazard area, to include any structures or proposed structures, meets (will meet) all of the standards of the local floodplain ordinances, and is (will be) reasonably safe from flooding in accordance with NFIP regulation 44 CFR 65.2(c). Please see the MT-2 instructions for more information.

3. For LOMR requests, is the regulatory floodway being revised?  Yes  No

If Yes, attach evidence of regulatory floodway revised notification. As per paragraph 65.7(b)(1) of the NFIP regulations, notification is required for requests involving revisions to the regulatory floodway. (Not required for revisions to approximate 1%-annual-chance floodplains (studied Zone A designation) unless a regulatory floodway is being added. Elements and examples of regulatory floodway revision notification can be found in the MT-2 Form 2 instructions.)

4. For LOMR requests, does this request require property owner notification and acceptance of BFE increase?  Yes  No

If Yes, please attach proof of property owner notification and acceptance (if available). Elements of and examples of property owner notification can be found in the MT-2 form 2 instructions.

## Appendix D

### Hydraulic Results

- Table D-1 – Dup.Eff. vs. Corr. Eff. WSE (reference CLOMR)
- Table D-2 – Corr. Eff. vs. Prop. WSE (reference CLOMR)
- Table D-3 – Eff. vs. Corr. Eff. vs. Pre-Proj. vs. Post-Proj. WSE

**Table D-3**  
**MMSD Pumping Station 18**  
**LOMR Request**

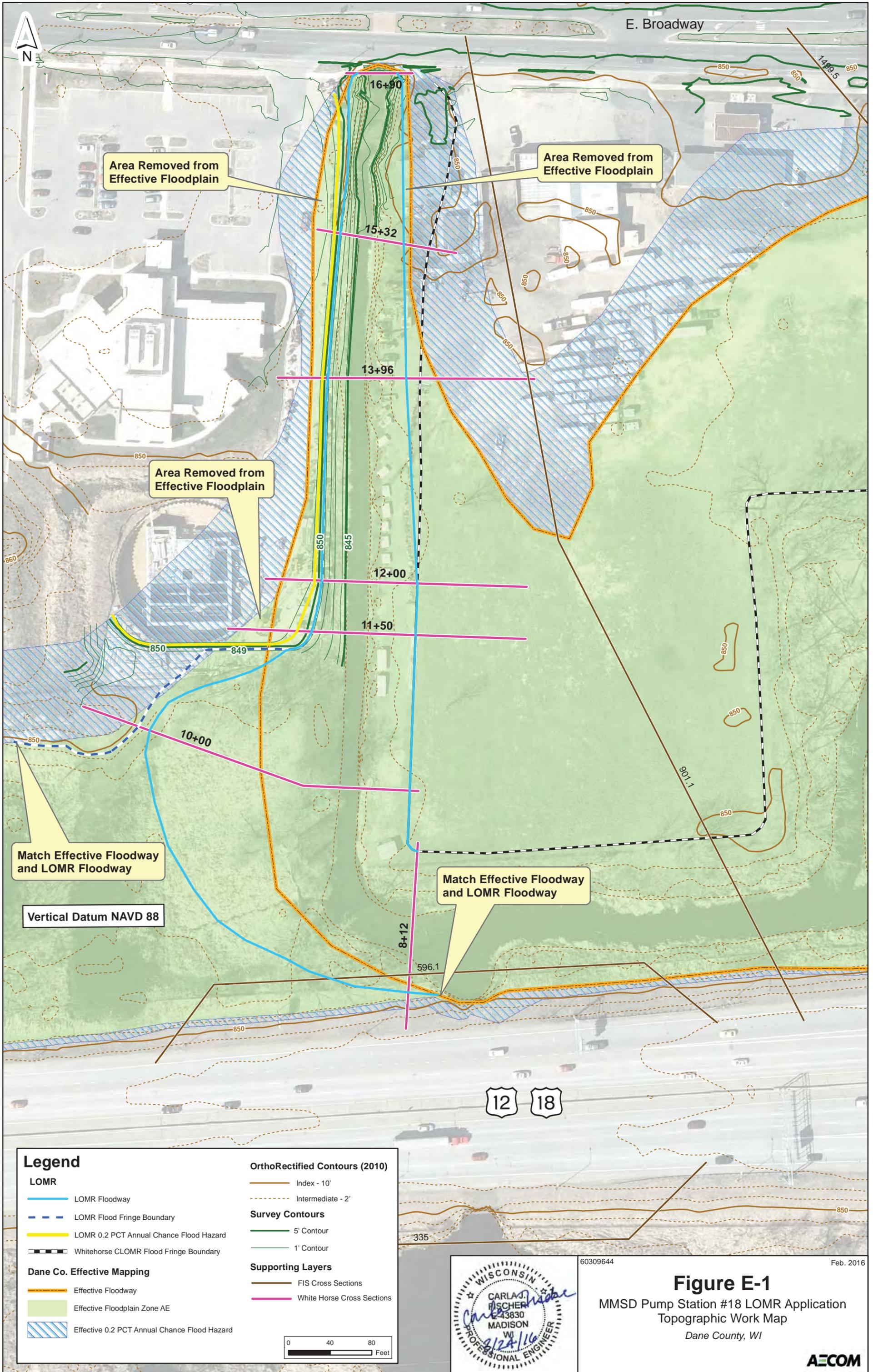
River Station	100-yr Water Surface Elev (ft)					
	Effective	Corrected Effective	Pre-Project (CLOMR)	Post-Project (As-Built) (LOMR)	CLOMR - Corr. Eff.	LOMR - Corr. Eff.
16+90	849.293	849.304	849.309	849.301	0.005	-0.003
15+32	849.279	849.276	849.281	849.280	0.005	0.004
13.+96	849.274	849.273	849.274	849.272	0.001	-0.001
12+00	849.264	849.264	849.264	849.265	0.000	0.001
11+50	N/A	849.264	849.263	849.263	-0.001	-0.001
10+00	849.261	849.263	849.263	849.263	0.000	0.000
8+12 *	849.260	849.260	849.260	849.260	0.000	0.000

\* 9+68.3 6 in Effective model, renamed during CLOMR to more accurately reflect XS location

## **Appendix E**

### **Post-Project Floodplain Maps**

- Figure E-1 – Topographic Work Map
- Post-Project FIRM



E. Broadway

Area Removed from Effective Floodplain

Area Removed from Effective Floodplain

Area Removed from Effective Floodplain

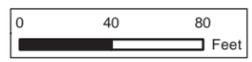
Match Effective Floodway and LOMR Floodway

Match Effective Floodway and LOMR Floodway

Vertical Datum NAVD 88

**Legend**

- |                                   |  |                                       |                            |
|-----------------------------------|--|---------------------------------------|----------------------------|
| <b>LOMR</b>                       |  | <b>OrthoRectified Contours (2010)</b> |                            |
|                                   | LOMR Floodway                                |                                       | Index - 10'                |
|                                   | LOMR Flood Fringe Boundary                   |                                       | Intermediate - 2'          |
|                                   | LOMR 0.2 PCT Annual Chance Flood Hazard      | <b>Survey Contours</b>                |                            |
|                                   | Whitehorse CLOMR Flood Fringe Boundary       |                                       | 5' Contour                 |
| <b>Dane Co. Effective Mapping</b> |  |                                       | 1' Contour                 |
|                                   | Effective Floodway                           | <b>Supporting Layers</b>              |                            |
|                                   | Effective Floodplain Zone AE                 |                                       | FIS Cross Sections         |
|                                   | Effective 0.2 PCT Annual Chance Flood Hazard |                                       | White Horse Cross Sections |



60309644 Feb. 2016

**Figure E-1**  
MMSD Pump Station #18 LOMR Application  
Topographic Work Map  
Dane County, WI



**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 18. The horizontal datum was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA NNGS12  
National Geodetic Survey  
SSMC-3, #6202  
1215 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was provided by Dane County Land Information Office and Fly Dane Partnership. The aerial photography was acquired in the spring of 2005 to create a 1" 200' scale digital orthophotos with 1-foot ground resolution and resampled to a 1-meter ground resolution.

Based on updated topographic information, this map reflects more detailed and up-to-date stream channel configurations and floodplain delineations than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unreviewed streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

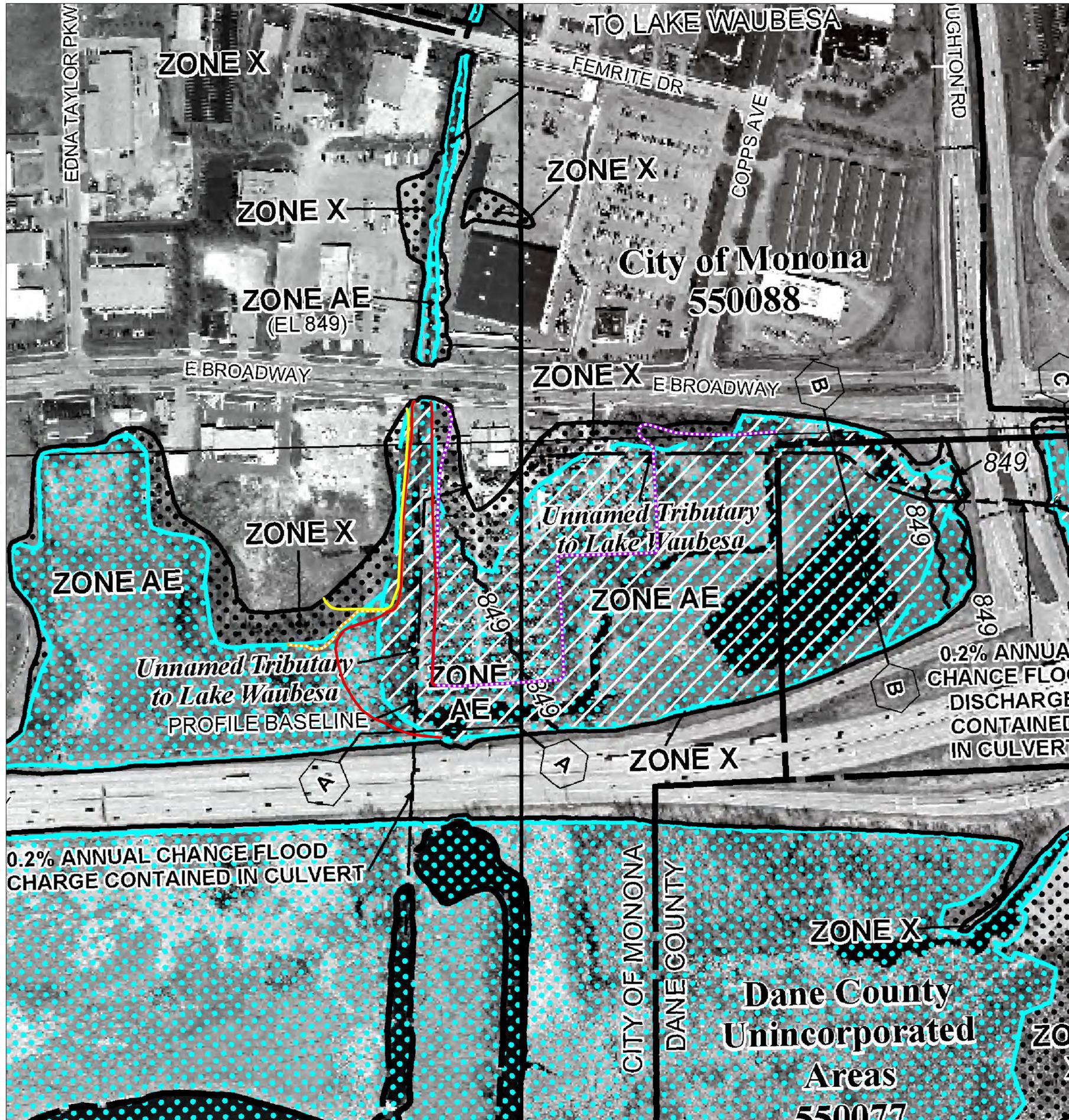
Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9618 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.nsc.fema.gov>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.

**Legend**

-  LOMR Zone X
-  LOMR Floodway
-  LOMR Flood Fringe
-  Whitehorse CLOMR Flood Fringe



**LEGEND**

-  SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
-  The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones AE, AH, AO, AR, AV, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
-  ZONE A: No Base Flood Elevations determined.
-  ZONE AE: Base Flood Elevations determined.
-  ZONE AH: Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
-  ZONE AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined; For areas of alluvial fan flooding, velocities also determined.
-  ZONE AR: Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
-  ZONE ARB: Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
-  ZONE V: Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
-  ZONE VE: Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
-  FLOODWAY AREAS IN ZONE AE
-  The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood depths.
-  OTHER FLOOD AREAS
-  ZONE X: Areas of 0.2% annual chance flood; Areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
-  OTHER AREAS
-  ZONE X: Areas determined to be outside the 0.2% annual chance floodplain.
-  ZONE D: Areas in which flood hazards are undetermined, but possible.
-  COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
-  OTHERWISE PROTECTED AREAS (OPAs)
-  CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
-  1% Annual Chance Floodplain Boundary
-  0.2% Annual Chance Floodplain Boundary
-  Floodway boundary
-  Zone boundary
-  Zone D boundary
-  CBRS and OPA boundary
-  Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, Flood depths or flood velocities.
-  Base Flood Elevation line and value; elevation in feet
-  Base Flood Elevation value where uniform within zone; elevation in feet
-  Referenced to the North American Vertical Datum of 1988
-  Cross section line
-  Transect line
-  Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
-  5000-foot ticks: Wisconsin State Plane South Zone (FIPS Zone 4803), Lambert Conformal Conic projection
-  1000-meter Universal Transverse Mercator grid values, zone 18N
-  Bench mark (see explanation in Notes to Users section of this FIRM panel)
-  River Mile
-  MAP REPOSITORIES: Refer to Map Repository list on Map Index
-  EFFECTIVE DATE OF COUNTY-WIDE FLOOD INSURANCE RATE MAP: June 17, 2009
-  EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL: January 2, 2009 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, to reflect updated topographic information, and to incorporate previously issued letters of Map Revision.
-  For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for the jurisdiction.
-  To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6622.

**PANEL 0437G**

**FIRM**  
FLOOD INSURANCE RATE MAP

**DANE COUNTY, WISCONSIN AND INCORPORATED AREAS**

PANEL 437 OF 850  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DANE COUNTY	550077	3437	3
MADISON CITY OF	550063	3437	3
MCPHARLAND VILLAGE OF	550066	3437	3
MONONA CITY OF	550068	3437	3

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER 55025C0437G**  
**MAP REVISED JANUARY 02, 2009**

Federal Emergency Management Agency

## **Appendix F**

### **Digital Data**

- HEC-RAS
- GIS Shapefiles
- CAD file of survey

Included in attached 12-05-1016R\_LOMR.zip file

## **Appendix G**

### **FEMA CLOMR Approval Letter**



# Federal Emergency Management Agency

Washington, D.C. 20472

APR 12 2012

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Robert Miller  
Mayor, City of Monona  
5211 Schluter Rd.  
Monona, WI 53716

IN REPLY REFER TO:

Case No.: 12-05-1016R  
Community Name: City of Monona, WI  
Community No.: 550088

Dear Mayor Miller:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Rate Map, for your community.

If you have any questions regarding the floodplain management regulations for your community, the National Flood Insurance Program (NFIP) in general, or technical questions regarding this CLOMR, please contact the Director, Mitigation Division of the Federal Emergency Management Agency (FEMA) Regional Office in Chicago, IL, at (312) 408-5245, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

David N. Bascom, CFM  
Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

For: Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:

Conditional Letter of Map Revision Comment Document

cc: Mr. Bruce Borelli  
Director of Engineering  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53719

Mr. Paul Kachelmeien  
Planning and Community Development Coordinator  
City of Monona  
5211 Schluter Road  
Monona, WI 53716

Ms. Kelly S. Mattfield, P.E.  
Project Manager  
AECOM  
1350 Deming Way Suite 100  
Middleton, WI 53562

Mr. Gary Heinrichs  
Wisconsin Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**CONDITIONAL LETTER OF MAP REVISION  
COMMENT DOCUMENT**

COMMUNITY INFORMATION		PROPOSED PROJECT DESCRIPTION	BASIS OF CONDITIONAL REQUEST
COMMUNITY	City of Monona Dane County Wisconsin	FILL	HYDROLOGIC ANALYSIS HYDRAULIC ANALYSIS FLOODWAY
	COMMUNITY NO.: 550088		
IDENTIFIER	MMSD Pump Station 18	APPROXIMATE LATITUDE & LONGITUDE: 43.047, -89.314 SOURCE: USGS QUADRANGLE DATUM: NAD 83	
<b>AFFECTED MAP PANELS</b>			
TYPE: FIRM*	NO.: 55025C0437G	DATE: January 02, 2009	* FIRM - Flood Insurance Rate Map ** FBFM - Flood Boundary and Floodway Map *** FHBM - Flood Hazard Boundary Map

**FLOODING SOURCE(S) AND REACH DESCRIPTION**

See Page 2 for Additional Flooding Sources

Tributary A to Unnamed Tributary to Lake Waubesa – From just downstream of E Broadway Street to Confluence with Unnamed Tributary to Lake Waubesa

**PROPOSED PROJECT DESCRIPTION**

Flooding Source	Proposed Project	Location of Proposed Project
Tributary A to Unnamed Tributary to Lake Waubesa	Fill Placement	Just South of E. Broadway Street

**SUMMARY OF IMPACTS TO FLOOD HAZARD DATA**

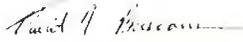
Flooding Source	Effective Flooding	Proposed Flooding	Increases	Decreases
Tributary A to Unnamed Tributary to Lake Waubesa	Zone AE	Zone AE	None	Yes
	BFEs	BFEs	Yes	None
	Floodway	Floodway	Yes	Yes
	Zone X (shaded)	Zone X (shaded)	Yes	None

\* BFEs - Base (1-percent-annual-chance) Flood Elevations

**COMMENT**

This document provides the Federal Emergency Management Agency's (FEMA's) comment regarding a request for a CLOMR for the project described above. This document is not a final determination; it only provides our comment on the proposed project in relation to the flood hazard information shown on the effective National Flood Insurance Program (NFIP) map. We reviewed the submitted data and the data used to prepare the effective flood hazard information for your community and determined that the proposed project meets the minimum floodplain management criteria of the NFIP. Your community is responsible for approving all floodplain development and for ensuring that all permits required by Federal or State/Commonwealth law have been received. State/Commonwealth, county, and community officials, based on their knowledge of local conditions and in the interest of safety, may set higher standards for construction in the Special Flood Hazard Area (SFHA), the area subject to inundation by the base flood. If the State/Commonwealth, county, or community has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP criteria.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA website at <http://www.fema.gov/nfip>.

  
 David N. Bascom, CFM, Program Specialist  
 Engineering Management Branch  
 Federal Insurance and Mitigation



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**CONDITIONAL LETTER OF MAP REVISION  
COMMENT DOCUMENT (CONTINUED)**

**COMMUNITY INFORMATION**

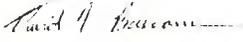
To determine the changes in flood hazards that will be caused by the proposed project, we compared the hydraulic modeling reflecting the proposed project (referred to as the proposed conditions model) to the hydraulic modeling used to prepare the Flood Insurance Study (FIS) (referred to as the effective model). If the effective model does not provide enough detail to evaluate the effects of the proposed project, an existing conditions model must be developed to provide this detail. This existing conditions model is then compared to the effective model and the proposed conditions model to differentiate the increases or decreases in flood hazards caused by more detailed modeling from the increases or decreases in flood hazards that will be caused by the proposed project.

The table below shows the changes in the BFEs:

BFE Comparison Table

Flooding Source:		BFE Change (feet)	Location of maximum change
Existing vs. Effective	Maximum increase	0.0	
	Maximum decrease	0.0	
Proposed vs. Existing	Maximum increase	0.0	
	Maximum decrease	0.0	
Proposed vs. Effective	Maximum increase	0.0	
	Maximum decrease	0.0	

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA website at <http://www.fema.gov/nfip>.

  
 David N. Bascom, CFM, Program Specialist  
 Engineering Management Branch  
 Federal Insurance and Mitigation



## Federal Emergency Management Agency

Washington, D.C. 20472

### CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

#### COMMUNITY INFORMATION (CONTINUED)

#### DATA REQUIRED FOR FOLLOW-UP LOMR

Upon completion of the project, your community must submit the data listed below and request that we make a final determination on revising the effective FIRM, and FIS report. If the project is built as proposed and the data below are received, a revision to the FIRM, and FIS report would be warranted.

- Form 1, entitled "Overview & Concurrence Form". Detailed application and certification forms must be used for requesting final revisions to the maps. Therefore, when the map revision request for the area covered by this letter is submitted, Form 1 must be included. If as-built conditions differ from the proposed plans, please submit new forms, which may be accessed at [http://www.fema.gov/plan/prevent/fhm/dl\\_mt-2.shtm](http://www.fema.gov/plan/prevent/fhm/dl_mt-2.shtm), or annotated copies of the previously submitted forms showing the revised information.
- Hydraulic analyses, for as-built conditions, of the base flood; and the regulatory floodway, together with a topographic work map showing the revised floodplain and floodway boundaries. Please ensure that the revised information ties in with the current effective information at the downstream and upstream ends of the revised reach.
- An annotated copy of the FIRM, at the scale of the effective FIRM, that shows the revised floodplain and floodway boundary delineations shown on the submitted work map and how they tie into the floodplain and floodway boundary delineations shown on the current effective FIRM at the downstream and upstream ends of the revised reach
- As-built plans, certified by a registered professional engineer, of all proposed project elements
- A copy of the public notice distributed by your community, stating its intent to revise the regulatory floodway, or a signed statement by your community that it has notified all affected property owners and affected adjacent jurisdictions
- Documentation of the individual legal notices sent to property owners who will be affected by any widening/shifting of the base floodplain and/or any BFE increases along Tributary A to Unnamed Tributary to lake Waubesa
- Evidence that your community has, prior to approval of the proposed encroachment, adopted floodplain management ordinances that incorporate the increased BFEs and revised floodway boundary delineations to reflect the post-project conditions, as stated in Paragraph 65.12(b)

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional Information about the NFIP is available on the FEMA website at <http://www.fema.gov/nfip>.

  
David N. Bascom, CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation



## Federal Emergency Management Agency

Washington, D.C. 20472

### CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

#### COMMUNITY INFORMATION (CONTINUED)

• A letter stating that your community will adopt and enforce the modified regulatory floodway, OR, if the State/Commonwealth has jurisdiction over either the regulatory floodway or its adoption by your community, a copy of your community's letter to the appropriate State/Commonwealth agency notifying it of the modification to the regulatory floodway and a copy of the letter from that agency stating its approval of the modification

• FEMA's fee schedule for reviewing and processing requests for conditional and final modifications to published flood information and maps may be accessed at [http://www.fema.gov/plan/prevent/flm/firm\\_fees.shtm](http://www.fema.gov/plan/prevent/flm/firm_fees.shtm). The fee at the time of the map revision submittal must be received before we can begin processing the request. Payment of this fee can be made through a check or money order, made payable in U.S. funds to the National Flood Insurance Program, or by credit card (Visa or MasterCard only). Please forward the payment, along with the revision application, to the following address:

LOMC Clearinghouse  
7390 Coca Cola Drive, Suite 204  
Hanover, Maryland 21076

After receiving appropriate documentation to show that the project has been completed, FEMA will initiate a revision to the FIRM, and FIS report. Because the flood hazard information (i.e., base flood elevations, base flood depths, SFHAs, zone designations, and/or regulatory floodways) will change as a result of the project, a 90-day appeal period will be initiated for the revision, during which community officials and interested persons may appeal the revised flood hazard information based on scientific or technical data.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA website at <http://www.fema.gov/nfip>.

  
David N. Bascom, CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation



Federal Emergency Management Agency  
Washington, D.C. 20472

**CONDITIONAL LETTER OF MAP REVISION  
COMMENT DOCUMENT (CONTINUED)**

**COMMUNITY INFORMATION (CONTINUED)**

**COMMUNITY REMINDERS**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Christine Stack  
Director, Mitigation Division  
Federal Emergency Management Agency, Region 5  
536 South Clark Street, Sixth Floor  
Chicago, IL 60605  
(312) 408-5245

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA website at <http://www.fema.gov/nfip>.

  
David N. Bascom, CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation



June 15, 2016

Ms. Sonja Reichertz  
City of Monona  
5211 Schluter Road  
Monona, WI 53716-2598

Subject: Floodplain Study Review - MMSD Pump Station 18 LOMR Submittal, City of Monona,  
Unnamed Tributary to Lake Waubesa

Dear Ms. Reichertz:

As per your request, we have completed our technical review of the floodplain study performed for the Unnamed Tributary to Lake Waubesa in the City of Monona. The study was prepared for construction of MMSD Pump Station #18. The project has received a CLOMR previously and the purpose of this submittal is to include the as-built information for the final LOMR submittal. The final study was completed by AECOM and submitted under the professional seal of Carla Fischer, P.E. The study meets the Standards of NR 116, Wisconsin Administrative Code and is hereby approved.

Prior to adoption and rezoning of the mapped floodplain, the study must receive a Letter of Map Revision (LOMR) from FEMA. Upon receipt of the final LOMR approval, the study must be adopted into the City of Monona's floodplain zoning ordinance. Please pay particular attention to the Class 2 notice requirements for public hearings. The second publication must at least one week before the hearing. A certified copy of the approved ordinance amendment adopting the study along with evidence of a Class 2 public hearing notice must be sent to the Department for final administrative review and approval.

If you have any questions relative to the FEMA requirements, the FEMA Region 5 contact for Wisconsin is John Devine. John can be reached at (312) 408-5567 or by email at [john.devine@fema.dhs.gov](mailto:john.devine@fema.dhs.gov). This approval only relates to the Standards of NR 116 and does not relieve the applicant of other necessary Federal, State or Local requirements. If you have any questions relative to this review and approval, please feel free to contact me.

Sincerely,

Robert R. Davis, P.E.  
Water Management Engineer  
Southern District  
[Robert.Davis@Wisconsin.gov](mailto:Robert.Davis@Wisconsin.gov)  
608-275-3316

cc: Carla Fischer, P.E. - AECOM (via e-mail)



# Federal Emergency Management Agency

Washington, D.C. 20472

August 10, 2016

RECEIVED

AUG 15 2016

AECOM  
MADISON, WI

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Bob Miller  
Mayor, City of Monona  
5211 Schluter Road  
Monona, WI 53716

IN REPLY REFER TO:

Case No.: 16-05-3951P  
Follows Conditional  
Case No.: 12-05-1016R  
Community Name: City of Monona, WI  
Community No.: 550088  
Effective Date of  
This Revision: **December 30, 2016**

Dear Mayor Miller:

The Flood Insurance Study Report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed which provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Chicago, Illinois, at (312) 408-5500, or the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/business/nfip>.

Sincerely,

Patrick "Rick" F. Sacbibit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document  
Annotated Flood Insurance Rate Map  
Annotated Flood Insurance Study Report

cc: Ms. Sonja Reichertz  
City Planner and Economic Development Director, Monona

Ms. Michelle Staff  
Wisconsin Department of Natural Resources

Ms. Carla Fischer, P.E.  
Project Manager, AECOM

Mr. Bruce Borelli  
Director of Engineer, MMSD

Follows Conditional Case No.: 12-05-1016R



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Monona Dane County Wisconsin	FILL	FLOODWAY HYDRAULIC ANALYSIS NEW TOPOGRAPHIC DATA
	COMMUNITY NO.: 550088		
IDENTIFIER	Madison Metropolitan Sewerage District- Pumping Station 18	APPROXIMATE LATITUDE & LONGITUDE: 43.047, -89.314 SOURCE: Other      DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*      NO.: 55025C0437G      DATE: January 2, 2009		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: June 16, 2016 PROFILE: 149P (NEW) FLOODWAY DATA TABLE: 24	

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map

### FLOODING SOURCE & REVISED REACH

West Unnamed Tributary to Lake Waubesa - From confluence with Unnamed Tributary to Lake Waubesa to approximately 900 feet upstream of confluence with Unnamed Tributary to Lake Waubesa

### SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
West Unnamed Tributary to Lake Waubesa	Zone AE	Zone AE	YES	YES
	Zone X (shaded)	Zone X (shaded)	NONE	YES
	Floodway	Floodway	YES	YES

### DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Patrick "Rick" F. Sacbbit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

**COMMUNITY INFORMATION**

**APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION**

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

**COMMUNITY REMINDERS**

We based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This revision has met our criteria for removing an area from the 1-percent-annual-chance floodplain to reflect the placement of fill. However, we encourage you to require that the lowest adjacent grade and lowest floor (including basement) of any structure placed within the subject area be elevated to or above the Base (1-percent-annual-chance) Flood Elevation.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Patrick "Rick" F. Sacbbit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Christine Stack  
Director, Mitigation Division  
Federal Emergency Management Agency, Region V  
536 South Clark Street, Sixth Floor  
Chicago, IL 60605  
(312) 408-5500

**STATUS OF THE COMMUNITY NFIP MAPS**

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "Rick F. Sacbbit".

Patrick "Rick" F. Sacbbit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

**PUBLIC NOTIFICATION OF REVISION**

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at [https://www.floodmaps.fema.gov/fhm/bfe\\_status/bfe\\_main.asp](https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp)

LOCAL NEWSPAPER

Name: *The Herald-Independent*

Dates: August 25, 2016 and September 1, 2016

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "Rick F. Sacbbit".

Patrick "Rick" F. Sacbbit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
WEST UNNAMED TRIBUTARY TO LAKE WAUBESA								
A	437	79	268	0.5	849.3 <sup>2</sup>	845.7	845.7	0.0
<b>REVISED DATA</b>								

<sup>1</sup> FEET ABOVE CONFLUENCE WITH UNNAMED TRIBUTARY TO LAKE WAUBESA

<sup>2</sup> BACKWATER EFFECTS FROM UNNAMED TRIBUTARY TO LAKE WAUBESA

**REVISED TO REFLECT LOMR EFFECTIVE: DECEMBER 30, 2016**

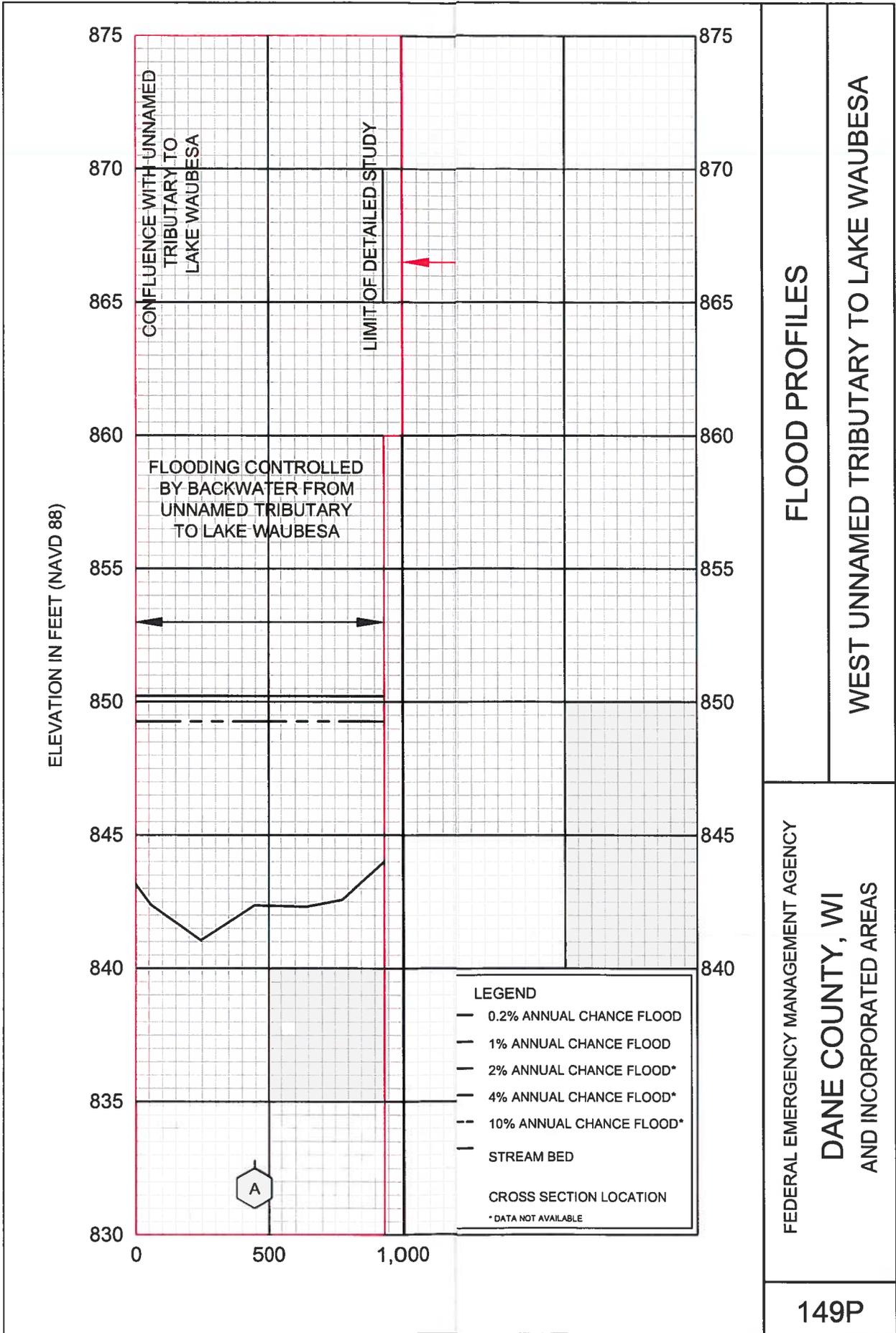
FEDERAL EMERGENCY MANAGEMENT AGENCY

**DANE COUNTY, WI**  
AND INCORPORATED AREAS

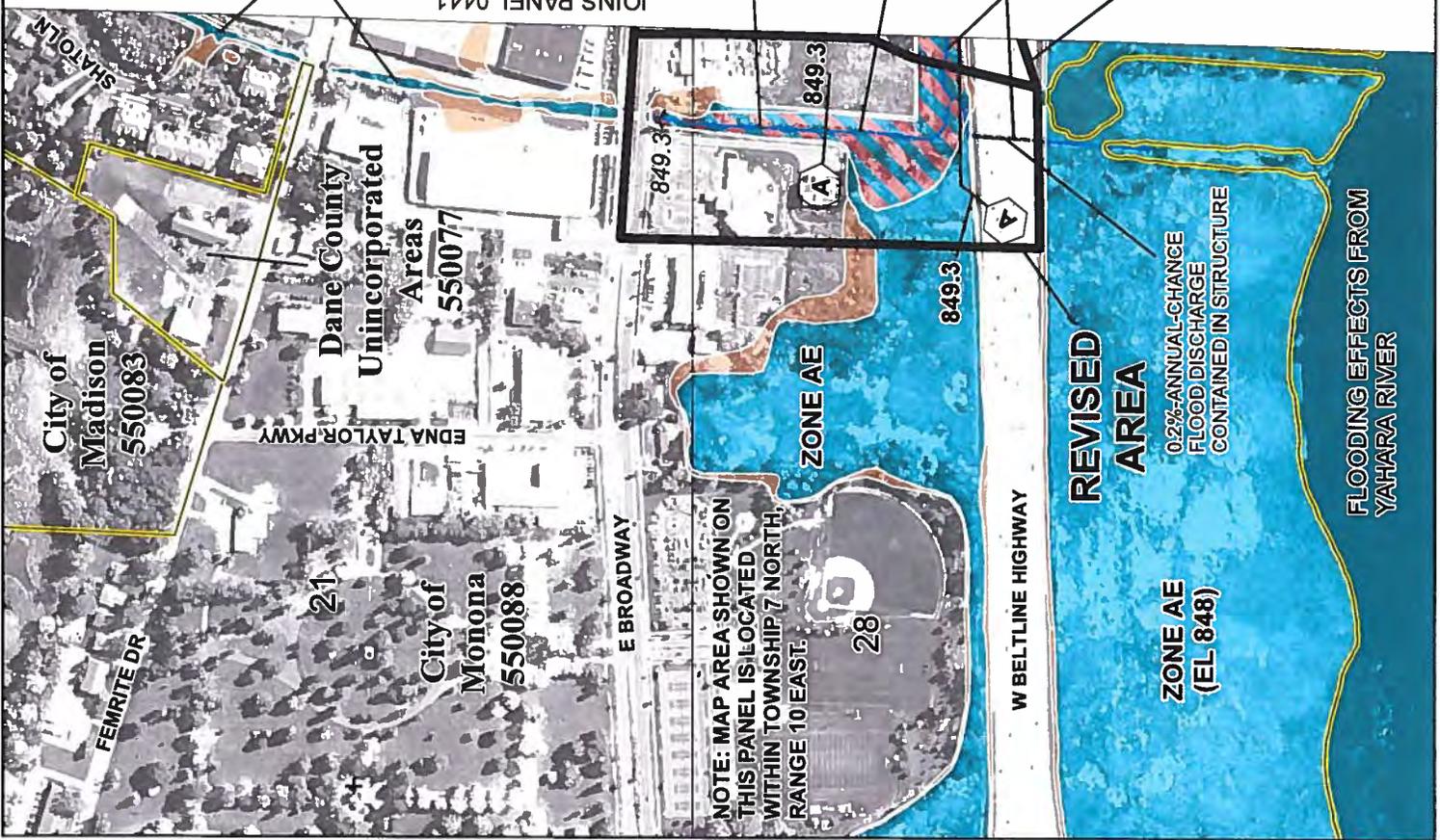
**FLOODWAY DATA**

**WEST UNNAMED TRIBUTARY TO LAKE WAUBESA**

**TABLE 24**



REVISED TO REFLECT LOMR EFFECTIVE:



**Without Base Flood Elevation (BFE)**  
Zone A1, A99  
With BFE or Depth Zone AE, AO, AH, VE, AR

**Regulatory Floodway**

**0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with average depth less than one foot or with drainage areas of less than one square mile** Zone X

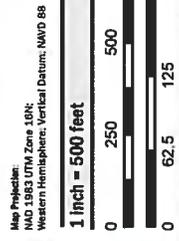
**Future Conditions 1% Annual Chance Flood Hazard** Zone X

**Area with Reduced Flood Risk due to Levee** See Notes. Zone X

**SPECIAL FLOOD HAZARD AREAS**

**OTHER AREAS OF FLOOD HAZARD**

**SCALE**



**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP  
DANE COUNTY, WISCONSIN  
AND INCORPORATED AREAS

**PANEL 437 of 850**

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
DANE COUNTY	550077	0437	G
MADISON, CITY OF	550083	0437	G
MCFARLAND, VILLAGE OF	550086	0437	G
MONONA, CITY OF	550088	0437	G

**REVISOR TO REFLECT LOMR EFFECTIVE: DECEMBER 30, 2016**

VERSION NUMBER 1.1.1.0  
MAP NUMBER 55025C0437G  
EFFECTIVE DATE JANUARY 2, 2009

**PLAN COMMISSION STAFF REPORT  
CITY OF MONONA**

**MEETING DATE: October 10, 2016  
AGENDA ITEM 6C & 6D  
CASE NO. 2-008-2016**

**Project:** Public Hearing and Prehearing Conference on Request by La Rae Richard, The Cozy Home, for a Zoning Permit and Façade Improvement Grant Application  
**Project Address:** 6328 Monona Drive  
**Applicants:** La Rae Richard, The Cozy Home

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**Proposal Summary:**

La Rae Richard owns the property at 6328 Monona Drive, currently occupied by Monona Academy of Dance and Farmers Insurance. Ms. Richard also owns the business, The Cozy Home, which a furniture and home décor consignment store located in the Lake Edge shopping center near Monona Drive and Buckeye Road in Madison. Ms. Richard has submitted plans for a substantial façade improvement project to the property at 6328 Monona Drive, and she intends to move her consignment business into the building. She has requested grant funds for the project through the city's Façade Improvement Grant Program. The proposed exterior improvements include new siding and trim for the west wall, addition of gables, dormers, and metal roof overhang, and asphalt shingles, paint walls, add new windows, new decorative front door, new signage, repair sidewalk and concrete, replace existing chain link with new doors, removal of existing façade and addition of a deck with pergola behind the building. The application also describes a potential second story addition with pitched roof.

**Applicable Regulations, Policy, or Practice:**

The Plan Commission shall determine if the plans are consistent with the Retail Business zoning district, the Façade Improvement Grant Program, the Monona Drive Urban Design Guidelines, Appendix A of the Zoning Code, and all other applicable zoning regulations and sections of the Monona Municipal Code of Ordinances.

**Recommendation:**

No action is recommended at this prehearing conference. The Plan Commission should discuss the following and request additional information as noted.

- Zoning/Use: The Plan Commission should discuss the potential of the second story, and if the applicant wishes to move forward, discuss whether apartments will be included and if parking is appropriate on the site. The Plan Commission should also discuss parking available for the retail uses and whether there is potential to add parking stalls to the rear or side of the building.
- Façade Grant Eligibility: The Plan Commission should determine whether the proposed improvements are eligible project costs under the façade program. It is staff's opinion that the improvements make a substantial upgrade to the Monona Drive face and the detailed project components are therefore eligible. Sidewall improvements are allowed as long as the project includes the substantial upgrades to the building façade.
- Landscaping and Lighting: No lighting or landscaping improvements are included in the plans. Discuss as noted in the staff report.
- Signage: Plans have not been submitted, but the Plan Commission should determine if a comprehensive signage plan will be required for the building since it has more than one sign to be viewed together on the building.
- Note comments from city department heads provided in the staff report.

## Proposal

La Rae Richard owns the property at 6328 Monona Drive, currently occupied by Monona Academy of Dance and Farmers Insurance. Ms. Richard also owns the business, The Cozy Home, which is a furniture and home décor consignment store located in the Lake Edge shopping center near Monona Drive and Buckeye Road in Madison. Ms. Richard has submitted plans for a substantial façade improvement project to the property at 6328 Monona Drive, and she intends to move her consignment business into the building. She has requested grant funds for the project through the city's Façade Improvement Grant Program. The proposed exterior improvements include new siding and trim for the west wall, addition of gables, dormers, metal roof overhang, asphalt shingles, painting of walls, new windows, new decorative front door, new signage, repair of sidewalk and concrete, replacement of existing chain link with new doors, removal of existing façade and addition of a deck with pergola behind the building. The application also describes a potential second story addition with pitched roof.

## Process

1. Public Hearing and Prehearing Conference Scheduled for 10/10/2016: The purpose of a prehearing conference is to familiarize the Plan Commission with the application, to allow the Commission to request revisions or additional information, and ask questions of the applicant. A public hearing notice was mailed to property owners within a 300' radius of the property at 6328 Monona Drive. In addition, at the prehearing conference, the Plan Commission should make a determination of whether the proposed improvements are eligible project costs in the façade improvement program.
2. Finance and Personnel Committee: Review of grant amount on 10/17/16: If the Plan Commission consensus is that the improvements are eligible program costs, the application will be scheduled at the Finance Committee meeting on 10/17/16 for consideration of the grant award. The grant amount will be provided upon project completion as a reimbursement, after inspection for consistency with approved plans.
3. Plan Commission Public Hearing and Consideration of Action tentatively scheduled for 10/24/16.

## Zoning

The property is zoned retail business. The proposed use is consistent with the retail business zoning district, but must be reviewed according to performance standards in the zoning code regarding parking, landscaping, lighting, signage and architectural design.

## Parking

Retail uses shall provide one parking space for each 300 square feet of gross floor area. The building interior square footage is 6,172 square feet which would require 20.5 parking stalls per the code, or to provide enough on-site parking to accommodate all vehicles which are expected to use the premises in the normal course of events. This is an existing developed site with limited available parking. There are 8 surface stalls available at the front of the site. The applicants should further describe the use of the building. Generally there may be one to two employees in the store at one time plus customers. On sites with limited parking, the Plan Commission has also encouraged employees to park in stalls that may be located more to the rear or side of the building to allow

spaces up front for customers. The applicants should comment on the parking available behind or to the side of the building.

### Potential Second Story

The application notes that they are considering a second story addition, but this was not included in the preliminary plans at this time. The Plan Commission should discuss the use of a potential second story. It is possible the applicants are considering adding apartments to the second level. Apartments are allowed as an ancillary use in the retail business zoning district, but must be reviewed according to zoning code standards including parking. According to the Fire Chief, if more than two apartments are proposed for the second level, then a sprinkler system will be required.

### Landscaping and Lighting

See comments below under the building design elements header.

### **Building Design Elements**

The Plan Commission shall determine if the proposed improvements are eligible program costs and if they are consistent with the Monona Drive Urban Design Guidelines (MDUDG). The sections that guide architectural design are attached. The MDUDG also include guidelines for landscaping and lighting standards. Decorative lighting is encouraged, but is not included in the proposed scope of work. This site is extremely limited with regard to landscaping opportunity, as it is currently close to 100% impervious surface. Landscaping between the parking stalls and sidewalk was added with the road reconstruction project. For other similar properties requesting zoning permits, the Plan Commission has required the addition of planters near the building façade to add greenery to the site.

### **Signage**

Signage plans have not been submitted as part of this prehearing conference. Any sign permit requests that accompany a zoning permit require approval by the Plan Commission. Therefore any permit requests in the future shall return to Plan Commission for review and approval. The Plan Commission may require submittal of a comprehensive signage plan when more than one sign will be viewed together as part of a group of signs. It appears that there will be signage bands provided for the business Cozy Home as well as a small tenant. I recommend requiring the applicant to submit a comprehensive signage plan that sets consistent standards for the sign type (such as prohibiting box/cabinet signs) and sign size for the building.

### **Grant Amount**

The property is eligible for funding from the grant program if it meets the intent of the program to make substantial aesthetic upgrades to the façade of the building facing Monona Drive. The applicant may receive a 50% match reimbursement not to exceed \$10,000. Ms. Richard is requesting a grant of \$10,000 (50% of total project costs of \$46,600.00 with a max of \$10,000). These figures must be supported by contractor estimates, which have not been submitted. The grant amount requires approval by Finance and Personnel Committee. The grant disbursement comes in the form of reimbursement upon project completion, after inspection to ensure plans were completed according to the approved plans. If all improvements are completed according to the approved plans, the applicant completes the City's Close-Out Form, and the grant award may be submitted as a reimbursement.

## **Department Head Review**

Plans were distributed to City Department heads to solicit their comments, concerns, and requirements. The Building Inspector and Fire Chief met with the applicants to discuss requirements. Addition of an alarm system and Knox box is required. The Police Chief suggested the addition of security cameras due to the use as retail sales, as those types of businesses are targets for theft and robbery. Public Works commented that there are no impacts to public works or utilities, but commented that they will need to contract privately for any solid waste and recycle services and that any work in the street right-of-way will require a ROW Permit. Please see comments under “zoning” regarding a potential sprinkler system requirement.

### **What is the Monona Façade Improvement Program (FIP)?**

The City of Monona's Façade Improvement Program was established to enhance the visual aesthetics of a portion of the Monona Drive corridor in the City of Monona by offering grant funding to building owners to improve their building frontage on Monona Drive. The program is being undertaken in combination with the City's overall redevelopment of the Monona Drive right-of-way. Improvements to the visual appearance of the corridor are designed to spur reinvestment, which will lead to enhanced economic vitality of this area of the City.

Grant funds will be offered by the City of Monona, which has money budgeted for the program from a Tax Increment District (TID) that includes the area. Successful grant recipients will receive a 50% match reimbursement of all eligible project costs to the amount approved by the City of Monona Finance and Personnel Committee, with a total grant amount not to exceed \$10,000.

The program will be operated on a 12-month trial period to begin upon City Council approval on October 12, 2009, after which it will be re-evaluated.

### **Who is eligible to receive funding under the FIP?**

Eligible applicants include an individual or entity who currently owns a commercial, retail, mixed-use, or residential building with frontage on Monona Drive in the City of Monona, between US Highway 12 & 18 (the Beltline) on the south and Nichols Road on the north.

### **What can the funds be used for?**

Improvements that receive funding must improve the visual appearance and aesthetic quality of the building frontage that faces Monona Drive. Plans and designs must conform to the Urban Design Guidelines for Monona Drive, the Zoning Ordinance and all other City Ordinances.

Eligible project costs for which grant funding can be applied are, but not limited to the following:

- Exterior improvements, such as: awnings, materials, entranceways, masonry work, lighting, etc.
- Site improvements such as decorative walkways, permanent planters, patios, landscaping, etc., as well as professional design fees may be eligible uses of grant funding.

Applicants are encouraged to have plans for proposed improvements prepared by a design professional.

Sidewall improvements are eligible, as long as they are accompanied by improvements to the façade facing Monona Drive. Improvements made to exterior walls not visible from Monona Drive will not be eligible for grant funding.

To be eligible, improvements with additions must also make improvements to the existing building façade. The addition must have a substantial impact on the overall appeal and aesthetic quality of the building façade.

The successful grant recipient will receive a 50% match reimbursement of all eligible project costs to the amount approved by the City of Monona Finance and Personnel Committee, with a total grant amount not to exceed \$10,000. The applicant is responsible for the other 50% of all eligible project costs for which the grant is applied. The applicant is also responsible for 100% of all non-eligible project costs and 100% of all project costs in excess of \$20,000. The intention is to award only one (1) grant of \$10,000 maximum per building.

### **How is the Program implemented?**

The City of Monona Department of Planning and Community Development will be responsible for the administration of the Program. The following details the steps that a Building Owner (Applicant) must follow to apply for and receive funding through the Grant Program:

1. **Attend Pre-Application Meeting.**

Applicant to contact either Paul Kachelmeier or Patrick Marsh at the City of Monona to arrange a meeting to discuss their proposed improvements and to determine eligibility. This meeting will help insure that the applicant understands all aspects of the Program before spending time and money to move their project forward.

2. **Complete Application Form.**

Applicant completes Application Form and returns the required information to their City contact.

3. **Obtain City Approvals:**

A. **Meet with City Finance Committee.**

Applicant will be scheduled to meet with the City Finance and Personnel Committee for evaluation of their Grant Request. (Committee usually meets the first and third Monday of each month at 6:00 PM).

B. **Prepare Plans and Designs and Meet with City Plan Commission.**

If the Grant Request is approved, the Applicant must then prepare detailed plans and designs for review by the City Plan Commission. The plans and designs must conform to the Urban Design Guidelines for Monona Drive, and the Monona Municipal Zoning Ordinance. (The Commission typically meets the second and fourth Monday of each month at 7:00 PM).

4. **Sign Agreement with the City.**

If any conditions of approval were deemed necessary, revisions must be resubmitted and approval received before agreements can be initiated. Upon receipt of the necessary approvals, the City will enter into a formal agreement with the Applicant.

5. **Commence Work on the Project.**

No work may begin on the project prior to approvals, and signing the Agreement for Improvements Between City and Applicant. If designs vary from the original approval, all work must cease and the revisions be resubmitted for approval by the City.

6. **Project Completion.**

Applicants have twelve (12) months to complete the improvements according to the approved plans and designs. Once the project work is complete, the Applicant must notify their City contact. The City representative will then inspect the project for full compliance with the documents and approvals granted, and the City representative and applicant will sign a Close-Out Form. This Form will acknowledge the successful completion and that the Applicant has complied with all terms of the Agreement with the City.

7. **Submit Reimbursement Request.**

Upon receipt of the signed Close-Out Form, the Applicant may submit the Reimbursement Request Form to their City Contact along with the necessary documentation such as invoices, lien waivers if used. This information will be reviewed by the Finance Committee and if found to be in compliance, the City will issue a reimbursement check to the Applicant.

# Architecture

## *Intent of this Section*

The intent of the guidelines for architecture is to ensure a base level of quality architecture that creates an aesthetic identity of the Monona Drive corridor, building a design vocabulary around complimentary scale, mass, and form. The guidelines encourage proposals that will fit within the context of Monona and contribute to the intended architectural character identified by the community.

## **Guidelines for Architecture**

### ***Character and Context***

Renovations and new construction should take into consideration the opportunity to create an identifiable, quality image for the Monona Corridor. The following guidelines are intended to allow development that responds to an evolving context over time:

- Multiple buildings within a project should share similar design characteristics and vocabulary. The use of coordinated colors, materials, and textures, as well the repetition of elements, patterns, and proportions found within the architecture of other successful buildings within the development are encouraged to achieve a cohesive mix; precise replication is not necessary or desirable.
- Use of sustainable building methods, materials, and products that minimize environmental impact, reduce energy consumption, and endure over time are encouraged.

### ***Scale and Massing***

The scale and massing of buildings along Monona Drive should consider a contextual relationship to existing or planned development.

Buildings over 50-feet in length should be designed to reduce their perceived bulk by dividing the structures into smaller masses both horizontally and/or vertically. For taller buildings, this can be achieved by providing a well-defined base and top for the building. For example, include elements such as low planters and walls, base



*Example - Creating a Sense of Place*



*Example - Scale and Massing*

planting, strong architectural base banding (wainscot) and treatments defined by a different material, texture, or color.

Changes in wall planes can also accomplish the division of a building elevation. Design solutions include the following:

- Clearly pronounced recesses and projections.
- Wall plane offsets determined by the building module.
- Reveals, projections, and subtle changes in texture and color of wall surfaces.
- Deep set windows and mullions.
- Use of ground-level arcades (covered walks with arched openings) and second-floor galleries (elevated walkways).
- Clearly demarcated entries.
- Vertical accents or focal points.
- Clear vision glass.
- Human-scale detail, windows, and other openings along ground floor pedestrian areas.

## ***Architectural Details, Materials, and Colors***

For architectural detailing of the Monona Drive corridor:

- Use high quality materials, such as stone, brick, or decorative concrete masonry units.
- Distinguish primary entrances to buildings with facade variations, porticos, roof variations, recesses, projections, or other integral building forms.
- Building colors may vary; the use of complementary color palettes are encouraged.
- Maintain consistent architectural materials and character on all visible sides of a building.
- Design screening devices and enclosed service, loading, and refuse areas to be an integral part of the building architecture.
- Visually link site walls with the building using consistent architectural materials and detailing.
- Where a drive-through is part of the building program, architecturally integrate the element into the building rather than designing it as a separate, attached entity.



*Example - Material Continuity*



*Example - Large Infill Building Demonstrating how to Break Down Mass and Create Appropriate Scale*



*Example - Structure Used for Exterior Connection*



*Example - Enhancement of Store Entry*

September 21, 2016

City of Monona  
Façade Improvement Program Grant Application  
5211 Schluter Road  
Monona, WI 53716

RE: 6328-6332 Monona Drive Façade Improvement Grant Application

To Whom This May Concern,

Thank you for giving us the opportunity to apply for matching funds for a façade improvement to the building we own at 6328-6332 Monona Drive. Kristie Shilling of the Monona Business Alliance brought this program to our attention and we are excited to apply.

Our one-story flat roofed building is desperately in need of a facelift. The current tenants are The Monona Academy of Dance and Farmer's Insurance Company - Tim Helman Agency. Early next summer (2017) the dance academy will be moving, the building interior will be renovated, and we will move our business (The Cozy Home) into the space.

We are hoping to begin renovations on the façade of our building yet this fall, weather and approvals permitting. In addition to improving the façade we are also studying the feasibility of framing in a second story with a pitched roof. Before exerting too much effort, we had a structural engineer take an informal look and he said adding a second floor to the building was structurally viable.

We understand that the second floor would not be included in the potential funding, however, it is integral to the building design and therefore merits including with this information.

We ask that our business plans be kept as confidential as possible in the near term so as not to affect The Monona Dance Academy's business or our business.

We are enclosing all of the requested and required documents and we look forward to working with you.

Kind Regards,

La Rae A. Richard  
The Cozy Home  
4100 Monona Drive  
608-630-8890  
[info@thecozyhomemadison.com](mailto:info@thecozyhomemadison.com)

Leah Hernandez

enclosures



**MONONA**

City of Monona Façade Improvement Program  
City of Monona Department of Planning and Community Development  
Attn: Sonja Reichertz  
5211 Schluter Road  
Monona, WI 53716  
Phone: (608) 222-2525  
[sreichertz@ci.monona.wi.us](mailto:sreichertz@ci.monona.wi.us)

**APPLICATION FORM**  
**City of Monona, Wisconsin**

**Façade Improvement Program**

Please review the Monona Drive Façade Improvement Program Application Guide for terms and conditions of the grant program before completing this application.

Building owner: Larae A. Richard

Contact: Larae A. Richard

Mailing address: 4100 Monona Dr., Madison, WI 53716

Email address: madisonresale@gmail.com

Phone number: 608 630 8890 Fax number: \_\_\_\_\_

**Building Information:**

Building name: \_\_\_\_\_

Building existing use: Farmers Insurance, Monona Dance Academy

Building/project address: 6328 Monona Dr. (6328 to 6332)

**For Administrative Use Only:**

Date of Plan Commission approval: \_\_\_\_\_

Date of Finance and Personnel Committee Approval: \_\_\_\_\_

Date of execution of Improvement Agreement: \_\_\_\_\_

Date of construction start: \_\_\_\_\_

Any design amendments to date? Yes \_\_\_\_\_ No \_\_\_\_\_

Date of amendment approval: \_\_\_\_\_ Type of amendment: \_\_\_\_\_

**Design Consultant Information:**

Company name: Christopher Kidd and Associates, LLC

Project contact person: Luis Herrera

Business address: N48 W16550 Lisbon Rd, Menomonie Falls, WI  
53051

Phone number: 1 262 901 0505

Email address: l.herrera@ckiddarchitects.com

**Contractor Information:**

Company name: Restless Investments LLC

Project contact person: LaRae A. Richard

Business address: N4397 Wolff Rd, Cambridge, WI 53523

Phone number: 936 537 3028

Email address: restlessinvestments@gmail.com

**Project Information:**

Please describe the proposed improvements:

Repair and renovate the facade of 6328-6330-6332  
Monona Drive per the attached documents.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Proposed start date: Fall 2016

Proposed completion date: Fall 2016 / Spring 2017 (Approval dependent)

## Project Budget

Please use the table below to describe the budget for the improvements being proposed in this application. Please list all project tasks (e.g. design services, signage, painting, masonry, lighting, labor, etc.) and include a description and the total cost of that task. Please be as specific as possible when listing project tasks. Please continue on the back side of this form if you need more space.

Task/Item	Description/Comments	Total Cost
<i>see attached spreadsheet</i>		
<b>TOTAL COST OF IMPROVEMENTS</b>		\$ <i>46,600.00</i>
<b>AMOUNT OF FUNDING REQUESTED</b>		\$ <i>10,000.00</i>

### Please Attach:

- Applicable information for the improvements that are proposed, including any photographs, plans, drawings, and contractor bid documents:
  - Photographs of the existing site and building conditions where improvements are proposed
  - Fee schedule and background information about consultant/firm qualifications to provide architectural design services, if proposed as part of activities to be covered with grant funding
  - Copy of contractor estimates for all services to be performed and covered with grant funding
  - Façade elevations of all proposed improvements to scale
  - Site plan identifying location of proposed changes

### Certification:

I hereby certify that to the best of my knowledge and belief, the content of the application is true and correct.

Signature of Building Owner: \_\_\_\_\_

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

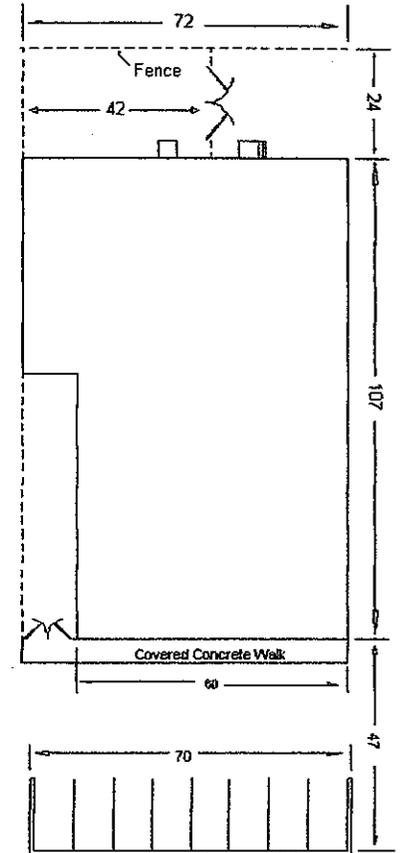
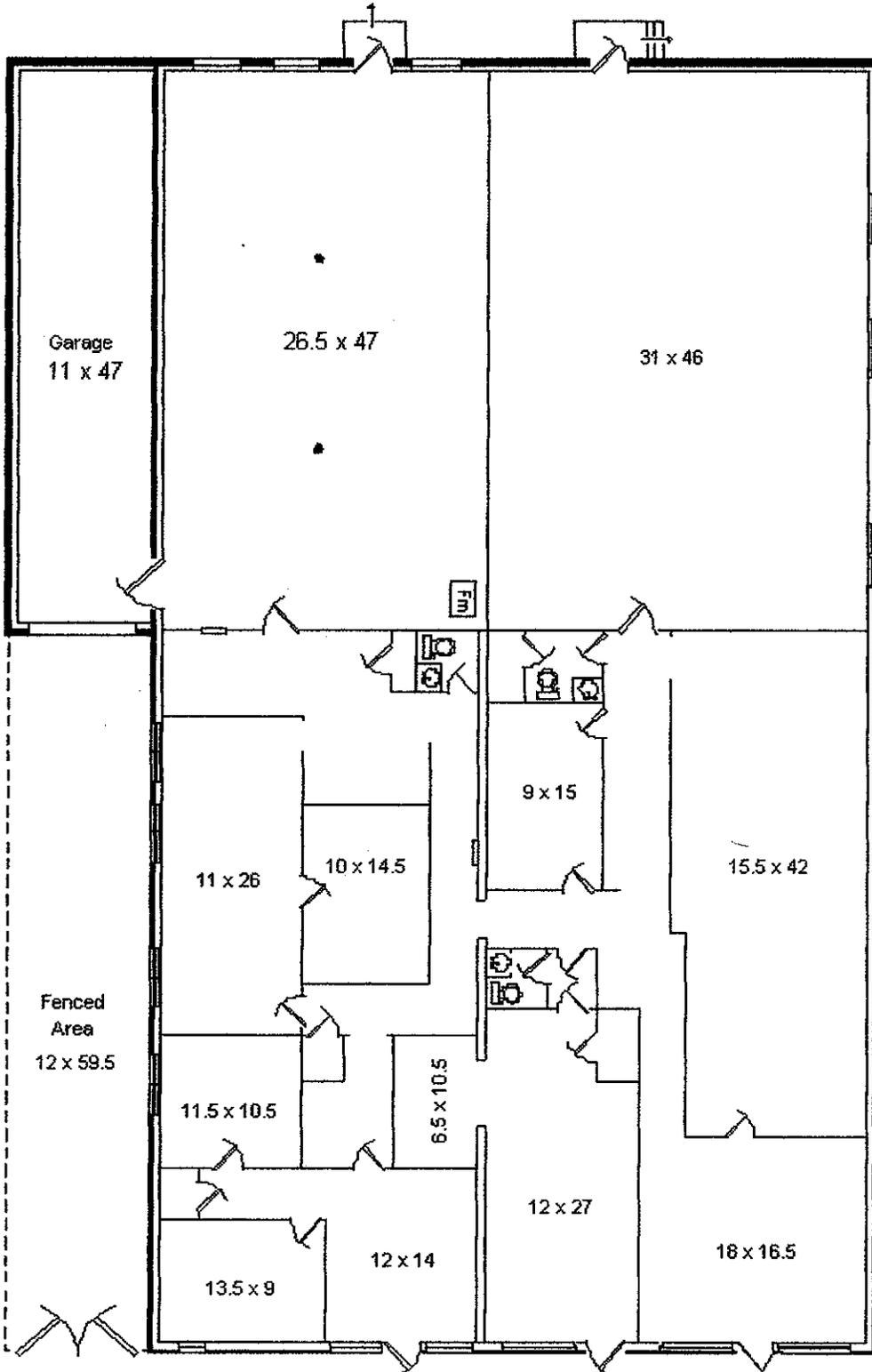
## 6328-6332 Monona Drive Façade Improvement Plan

Task/Item	Description/Comments
New siding and trim for west facing wall - Add gables, dormers, raised seam metal roof overhang, asphalt shingles	See renderings. Paint or side existing brick façade. New trim for 6328 windows and door. Create illusion of two stories
Paint North, South and East walls	Repair and paint existing block walls
Add 2 commercial windows to west wall @ \$1500 each	Source new or reclaimed commercial windows for main entrance façade
New commercial front door (French, with glass)	Source new or reclaimed commercial french doors with glass for main entrance
New signage (move existing signage from 4100 Monona Dr.) See photos	Use existing signage; box sign to be mounted on South wall (where ballerina painting is); primary logo to be positioned on west side above new entrance
Repair sidewalk (mud jack to level)	Sidewalk that runs across the front of the building needs leveling
Remove broken concrete drive on north side of building and replace	Remove broken concrete and replace with concrete or crushed granite
Replace existing chain link gates on north side with new doors	Remove chain link gates and replace with solid swinging exterior panels (lockable)
Potentially add a second story with pitched roof - tbd	Likely not at this time; continue study
Demo existing façade	Remove overhang, false front, metal scrollwork, lighting, tentant signage
Add a deck in the rear with pergola for displaying summer furnishings	Add 24'x24' platform deck to rear of building. Create 3 ee parking spaces
	<b>Total Cost of Improvements</b>
	<b>Amount of Funding Requested</b>

9/22/2016

<b>Total Cost</b>	
\$	25,000.00
\$	2,000.00
\$	3,000.00
\$	3,000.00
\$	500.00
\$	600.00
\$	3,000.00
\$	1,000.00
\$	-
\$	2,000.00
\$	6,500.00
<b>\$</b>	<b>46,600.00</b>
<b>\$</b>	<b>10,000.00</b>

# 6328 Monona Drive Monona, WI 53716



6,172 Total Est. Finished  
Interior Sq Ft

6,990 Total Est. Building  
Foot Print

Actual lay-out may differ somewhat from that shown on the floor plan sketch. Room Dimensions are Approximate. Square Footage taken from Exterior dimensions rounded to nearest 1/4 foot, or taken from MLS, Agent or Tax records. Home View Services, 608-469-3456, Middleton WI













SOUTH EXTERIOR BUILDING ELEVATION  
SCALE: 3/16" = 1'-0"



EAST EXTERIOR BUILDING ELEVATION  
SCALE: 3/16" = 1'-0"

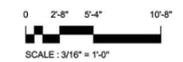


WEST EXTERIOR BUILDING ELEVATION  
SCALE: 3/16" = 1'-0"



NORTH EXTERIOR BUILDING ELEVATION  
SCALE: 3/16" = 1'-0"

FINISH LEGEND	
1	ASPHALT SHINGLES
2	PVC FASCIA
3	PVC TRIM
4	PVC CASING
5	MODULAR BRICK
6	CMU
7	EXTERIOR INSULATED FINISH SYSTEM (EIFS)
8	HARDI PLANK SIDING
9	STANDING SEAM METAL ROOF
10	DECORATIVE WOOD DOORS
11	ALUMINUM STOREFRONT FRAMING WITH INSULATED LOW-E GLAZING
12	GUTTER AND DOWNSPOUTS



Proposed Retail Renovation for:  
**The Cozy Home**  
 6328 Monona Drive  
 Madison, Wisconsin, 53716

**Christopher Kidd and Associates, LLC**  
 ARCHITECTS ENGINEERS PLANNERS  
 1459 W. 1650 Lisbon Road • Menomonie Falls, Wisconsin 53051-4690  
 P: 715.231.1505 F: 715.231.1510 [info@ckaa.com](mailto:info@ckaa.com) [ckaa.com](http://ckaa.com)

#	DATE	REVISION DESCRIPTION

These drawings, as instruments of service, remain the property of the Architect or Engineer. Any changes, publication, or use of any kind is prohibited unless expressly authorized by said party.

Copyright 2016  
 Drafted By: LH  
 Checked By: CDK  
 Date Drafted: 07/29/2016  
 Project #: 16086-01

**A300**

PRELIMINARY DESIGN  
 NOT FOR CONSTRUCTION