



Legislation Details (With Text)

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Title: Resolution to Accept and Appropriate the Second Phase of a Hazard Mitigation Assistance Grant from FEMA to Construct Openings in the Railroad Berm to reduce the Floodplain of Allen Creek (\$4,360,980.00) (8 Votes Required)

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Attachments: 1. 4195 HMGP Grant Agreement Ann Arbor Berm Phase 2 PDF.pdf, 2. site_plan_010419.pdf

Date	Ver.	Action By	Action	Result
2/19/2019	1	City Council	Approved	Pass

Resolution to Accept and Appropriate the Second Phase of a Hazard Mitigation Assistance Grant from FEMA to Construct Openings in the Railroad Berm to reduce the Floodplain of Allen Creek (\$4,360,980.00) **(8 Votes Required)**

Attached for your review and action is a resolution to approve a grant agreement between the City of Ann Arbor and the Federal Emergency Management Agency (FEMA) to accept a Hazard Mitigation Grant for 75% of the flood mitigation portion of the project cost to construct the railroad berm openings near the outlet of Allen Creek.

Flood Mitigation Background

In 2007, City Council approved a Flood Mitigation Plan:

http://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/floodplains/Documents/FloodplanMitigationPlan_Mar07.pdf

One of the recommendations of the Flood Mitigation Plan was to study the Allen Creek railroad berm:

Mitigation Objective Project 51: Railroad Berm Fill Removal Examine ways to remove the berm located between Depot St. and the Huron River, as well as other portions of the railroad berm in the Allen Creek corridor, to allow floodwater to travel to the river without a major barrier impeding the flow, acting like a dam. Examine the costs of creating a terraced rail system. Compare costs estimates to complete project with the estimated costs of removal/relocating structures that may be outside of the floodplain if the berm is removed.

The railroad berm is perpendicular to the overland drainage flow pattern of Allen Creek and causes the floodplain depth in this area of the City to be as deep as 10 feet. Upstream of the influence of this berm, flood depths are more typically in the 3 to 5 foot range.

In December of 2013, the City and its consultant, OHM-Advisors, completed a Feasibility Study to determine if it was possible to create openings in the railroad berm to accommodate passage of floodwaters and to allow pedestrians to cross safely under the railroad to get to the park facilities to the north. The study determined that such dual openings are feasible and a preferred concept was selected. The complete feasibility study is attached and also available at <http://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/Pages/Data-and-Information.aspx>. The Feasibility Study indicated that it is possible to lower the floodplain elevation in the area by as much as 6.5 feet as well as to accommodate non-motorized access under the railroad. One of the options, that includes pedestrian access, was determined to be acceptable to Michigan Department of Transportation (MDOT - owner of the railroad), and was selected as the preferred option.

The study also compared the project cost to the decreased cost associated with the lowered risk to the structures currently in the floodplain. There are numerous structures within the influence of the railroad berm located near the mouth of Allen Creek. By lowering the floodplain elevation by 6.5 feet, 31 structures would have reduced flood risk and some would no longer be within the floodplain. Substantial reductions in flood insurance rates could be realized by the affected properties.

The City of Ann Arbor 2017 and 2012 Hazard Mitigation Plans reference the 2007 Flood Mitigation Plan and reiterates this same recommendation. The FEMA approved City of Ann Arbor 2017 Hazard Mitigation Plan makes the City eligible for Hazard Mitigation Grants.

In the spring of 2016, City Staff was invited by the Michigan State Police-Emergency Management Division (MSP-EM) to apply for a phased FEMA Hazard Mitigation Grant for 75% of the flood mitigation portion of the project cost to design and construct the railroad berm openings.

On August 15, 2016 the City of Ann Arbor passed a resolution (R-16-331) to accept a phased FEMA Hazard Mitigation Assistance Grant (Project # HMGP P4195.16) agreement for the first phase of a two phase project to create openings in the railroad berm. Phase one consisted of the engineering design, development of construction plans, and preparation of the Phase Two hazard mitigation grant application. Phase Two will consist of construction of the project. The Phase Two FEMA grant funding was conditioned on an approvable Phase Two grant application.

On January 3, 2017 the City of Ann Arbor approved resolution (R-17-004) to authorize a professional services agreement with Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. (Bergmann) for the design of the Allen Creek Railroad Berm Opening Project.

During Phase 1 Design a total of \$588,796 was spent on the flood mitigation portion of the project and FEMA approved reimbursed of \$441,597 (75%).

The project design and construction plans are now complete. The City has received a Conditional Letter of Map Revision (CLOMR) from FEMA documenting that the floodplain will be reduced from 0 to 6.5 feet, from Felch Street to the Railroad berm, if the project is constructed as planned. The City has received the necessary floodplain permit from the Michigan Department of Environmental Quality. The project is ready to proceed to the construction phase.

Construction is anticipated in the summer of 2019. The FEMA grant agreement for Phase 1 and Phase Two are effective through June 21, 2019. Since construction is expected to continue past the end of the FEMA grant period, once the grant is fully executed, a one-year extension will be

requested.

Matching funds for the Phase 2 FEMA Hazard Mitigation Grant have been included in the City of Ann Arbor Capital Improvement Plan and the Stormwater Fund Capital Budget. The FEMA grant will cover 75% of the flood mitigation portion of this mitigation project. The Phase 2 federal grant and non-federal contribution is shown below:

Total FEMA (federal) contribution:	\$3,270,735.00
Total City (non-federal) contribution:	\$1,090,245.00
Total estimated cost of this mitigation project:	\$4,360,980.00

FEMA Grant funds will be available for the life of the project regardless of fiscal year. The City's Stormwater and Floodplain Management Program Coordinator will be responsible for the FEMA grant management.

Phase 2 is estimated to take about one year, with the actual construction occurring over an approximately 5 months in 2019.

Non-motorized Transportation Background

The North Main-Huron River Corridor Vision Task Force made the following recommendation in its September 2013 "Vision for the Future" Report:

So long as it is deemed financially feasible by the Allen Creek Railroad Berm Feasibility Study: The under-rail pedestrian passage to allow pedestrian access through the berm should be built north of Depot Street between 4th Avenue and N. Main Street in conjunction with the City's flood mitigation efforts. As such, the project will also include a non-motorized/pedestrian tunnel that could be part of a future Allen Creek Greenway (later renamed Treeline).

This pedestrian improvement is also recommended in the Non-motorized Transportation Plan and is part of the Treeline - Allen Creek Urban Trail Master Plan approved by City Council on December 18, 2017.

The cost of the non-motorized/pedestrian tunnel is not included in the FEMA grant. The current full project estimate for Phase 2 (construction) is approximately \$6,600,000.00 approximately \$2,300,000.00 of the project cost is related to the non-motorized/pedestrian access. Funding for the non-motorized/pedestrian portion of phase one and two were programmed in the Alternative Transportation Fund Capital budget. Funding for Phase Two of the non-motorized/pedestrian portion has several additional funding sources, including Transportation Alternatives Program (TAP) grant through the Southeast Michigan Council of Governments (SEMCOG) and MDOT for \$971,250.00; Washtenaw Area Transportation Study (WATS) for \$315,000.00; and a Michigan Department of Natural Resources Trust Fund grant for \$300,000.00.

Budget Impact: The proposed work completed through this grant will implement a recommendation of the 2017 Hazard Mitigation Plan, which recommends opening the railroad berm to allow floodwater to travel to the river. Funding for the City share of this project is available in the approved and the proposed FY20 Public Services Stormwater and Alternative Transportation Fund's Capital Budgets.

Sustainability Framework: The proposed work completed under this project furthers the Sustainable Systems and Safe Community goals of the City's Sustainability Framework.

Prepared By: Jerry Hancock, Stormwater and Floodplain Programs Coordinator
Reviewed By: Craig Hupy, Public Services Administrator
Approved By: Howard S. Lazarus, City Administrator

Whereas, The railroad berm near the mouth of Allen Creek is perpendicular to the flow of flood water and causes the floodplain depth to be as deep as 10 feet (upstream of the influence of this berm, flood depths are more typically in the 3 to 5 foot range);

Whereas, Opening the railroad berm to reduce flood depth is a recommendation of the City of Ann Arbor 2007 Flood Mitigation Plan (project #51);

Whereas, The City of Ann Arbor 2017 and 2012 Hazard Mitigation Plans reference the 2007 Flood Mitigation Plan and reiterates this same recommendation;

Whereas, The FEMA approved City of Ann Arbor 2017 Hazard Mitigation Plan makes the City eligible for Hazard Mitigation Grants;

Whereas, The shared-use non-motorized path through the railroad berm is recommended in the Non-motorized Transportation Plan and the Treeline - Allen Creek Urban Trail Master Plan;

Whereas, On August 15, 2016 the City of Ann Arbor passed a resolution (R-16-331) to accept a phased FEMA Hazard Mitigation Assistance Grant (Project # HMGP P4195.16) agreement for the design (Phase 1) of a project to create openings in the railroad berm;

Whereas, On January 3, 2017 the City of Ann Arbor approved resolution (R-17-004) to authorize a professional services agreement with Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. (Bergmann) for the design of the Allen Creek Railroad Berm Opening Project;

Whereas, The City has received a Conditional Letter of Map Revision (CLOMR) from FEMA documenting that the floodplain will be reduced from 0 to 6.5 feet, from Felch Street to the Railroad berm, if the project is constructed as planned;

Whereas, If the berm is opened, 31 structures will have reduced flood depth and risk;

Whereas, In that case, several structures will no longer be in the floodplain and substantial reductions in flood insurance rates could be realized by the affected properties;

Whereas, FEMA determined that only the flood mitigation aspect of the project could be funded through the hazard mitigation grant program;

Whereas, The construction cost attributable to flood mitigation is \$4,360,980.00;

Whereas, Funds for the City's \$1,090,245.00 match have been programmed in the City of Ann Arbor Capital Improvement Plan and Stormwater Utility Capital Budget; and

Whereas, The Stormwater and Floodplain Program Coordinator will be responsible for the FEMA grant management;

RESOLVED, That the City accept and appropriate the Federal Emergency Management Agency grant of \$3,270,753.00 for Phase Two of the Allen Creek Berm Opening Project;

RESOLVED, City matching funds be appropriated from the Stormwater Capital Budget to the existing Allen Creek Berm Opening Project within the Major Grant Fund (Fund 00MG); thereby, increasing both the revenue and expenditure budgets; and

RESOLVED, That City Council authorize the Mayor, City Clerk and City Administrator to execute all documents necessary to complete the Grant requirements for the construction phase of this project, after approval as to form by the City Attorney.