

Jefferson-Chalmers WATER Project

Water Access, Technology, Education and Recreation

Keep Sewage out of Basements & Canals • Keep Stormwater out of the System • Keep Great Lakes out of the Neighborhood

Funding Community Flood Protection is a Public Duty, Not a Private, Responsibility

Overview

Flood protection is a public health and safety matter and in order to protect the Jefferson-Chalmers community from future Great Lakes encroachment and unlock economic opportunity, the entire neighborhood must be removed from the 100-Year Floodplain. Investments necessary to achieve 580' North American Vertical Datum of 1988 (NAVD88) would benefit not only parcels of land directly abutting water, but would benefit the entire community and, therefore, the responsibility for funding flood protection lies with the public sector.

It seems clear that the Federal Emergency Management Agency (FEMA) 100-Year Floodplain designation in October 2021 has been mapped based upon the decades long cycle of high-water levels in the Great Lakes which occurred again in the Summer of 2019.

While the Jefferson-Chalmers community is approximately 1.2 square miles there is nearly 10 miles of shoreline. This includes Fox Creek and its linked canals that define four islands on the community's eastern edge, Grayhaven's Port and Star Lagoon that define its island and Conner Creek's daylighted portion south of Freud, and the various marinas and water-based businesses that include what is commonly referred to as "inside the Bayview Yacht Club fence line."



It is generally understood that the single and only path for modifying the mapped floodplain is through:

1. US Army Corps of Engineers (The Corps) Section 205 Flood Mitigation Continuing Authority Program (CAP);
2. Construction of single line of defense with flood protection investments along the entire shoreline at 580' NADV that prevent future Great Lakes encroachment; and
3. FEMA's approval of a Letter of Map Revision (LOMR).
- 4.

Achieving the goal of removing the floodplain through the Section 205 Program could take more than a decade. At the same time, The Corps **Floodplain Management Services Program (FPMS) Study**, published in July 2022 included restricting access on both ends of the community by closing canals that access the Detroit River as well as the construction of a flood wall, blocking the entry to Bayview Yacht Club. At between **\$160 million and \$171 million**, the cost of the canal closure alternatives offered by The Corps were excessive, unnecessary and were soundly rejected by the community and all impacted stakeholders and moreover by the time the projects would be constructed the costs could exceed **\$230 million**.

Alternatively, the **Jefferson-Chalmers WATER Project** has determined the cost to achieve a single line of defense for flood protection to be **\$41.25 million** and believes the responsibility to construct and underwrite these projects exclusively falls on the public sector. Further, we believe that there are existing resources within a host of public agencies that should support this effort, including **Justice40** commitments at the state and Federal levels.

Regardless, questions remain: **Who is responsible for flood protection? Who should pay for it?**

The purpose of this report is to demonstrate why the public sector should be exclusively responsible for paying for flood protection in Jefferson-Chalmers. A variety of legal policy, zoning, building code, flood mitigation, civil engineering, shoreline restoration and seawall construction experts contributed to the preparation of this report.

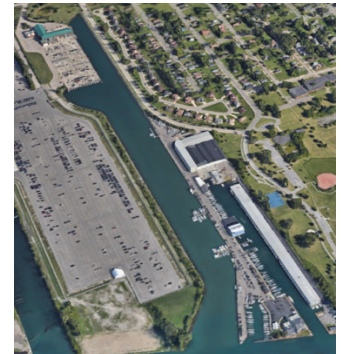
Common Language and Understanding



Riparian zones, or areas, are lands that occur along the edges of rivers, streams, lakes, and other water bodies. Examples include streambanks, riverbanks, and flood plains. They are different from the surrounding uplands because their soils and vegetation are shaped by the presence of water.

Fox Creek is the primary north-south canal and it along with Philip and Lakewood canals that extend into the Detroit River as well as waterways that surround four (Harbor, Klenk, Mariner Park and Lakewood East Park) islands are collectively herein referred to as Fox Creek.

Conner Creek's daylighted portion south of Freud and the

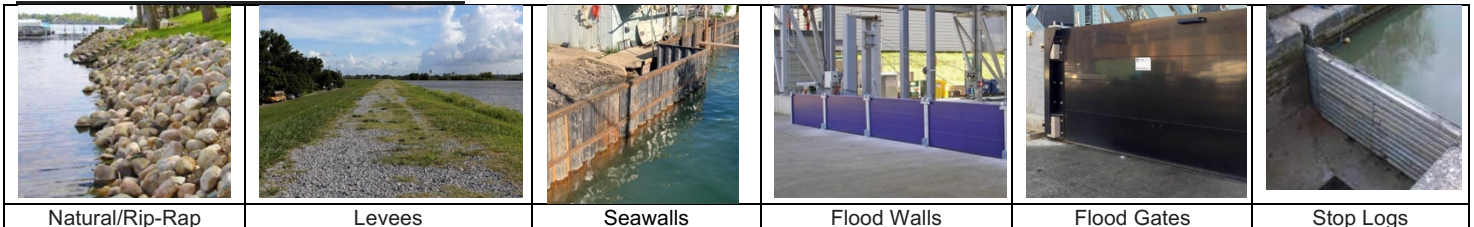


condominiums, KAM Marine and other water-based businesses as well as Bayview Yacht Club's Clubhouse and other facilities herein will simply be referred to as Bayview. And, with the exception of a small portion of shoreline along Port Drive at the northwest of the development, Grayhaven's Island and Lagoons are not in the floodplain and therefore, are excluded from this analysis.

Justice40 is a Biden White House Initiative implemented under Executive Order 14008 which mandating at least 40% of the benefits of certain federal investments must flow to disadvantaged communities impacted by climate. "Disadvantaged communities" refers to communities with environmental justice concerns and those with predominantly low-income people and/or communities of color. Michigan's Department of Environment, Great Lakes and Energy also suggests a Justice40 as a priority in its MI Healthy Climate Plan.

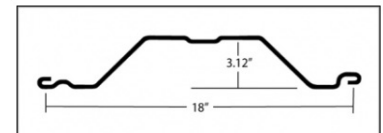
There is no disadvantaged community in Michigan impacted by climate like Jefferson-Chalmers.

Alternative Flood Protection Structures



Flood protection structures like flood walls, flood gates and stop logs that restrict access have been rejected by the community. At the same time, while levees and rip-rap, also commonly referred to as natural shoreline contribute to a healthy ecosystem for wildlife on the shore and in the water, they must be engineered to meet performance standards including stability, seepage and settlement. Under Section 116 of WRDA 2020, "To the maximum extent practicable, the Secretary shall include in each feasibility report developed under Section 905 of the Water Resources Development Act of 1986 (33 U.S.C. 2282) for a project that contains a flood risk management or hurricane and storm damage risk reduction element, **a summary of the natural feature or nature-based feature alternatives.**

Natural-based solutions include a variety of approaches stakeholders prefer and they are significantly less expensive (more than 1/3 less), are more effective flood protection, encourage a rich ecosystem, reduce wake and increase safety.



Finally, it is commonly understood that a 3-1/8" sheet pile section is the appropriate application for shoreline along Fox Creek.

Although no comprehensive study has been done, it has been suggested by the City Administration that as much as 70%+ of seawalls along Fox Creek are missing, in poor condition or whose height may not be sufficient to respond to flood protection requirements necessary to remove the community from the floodplain. While much of Bayview's seawalls are higher than 580', the lowest portion is approximately 577.6' and grade at the entry is 575.5'. The elevation of seawalls along the 48 marina condominiums is not known.

Like St. Clair Shores, other municipal jurisdictions adjacent to the Great Lakes and its tributaries have shoreline and seawall requirements. However, the City of Detroit has no single agency which establishes the requirements for construction along its shoreline, including a height requirement in order to ensure effective protection from potential flooding.

US Army Corps of Engineers – Floodplain Management Services Program (FPMS) Study Table 2: Required levee/ floodwall elevations (page 18)				
Transect	1% Annual Chance Stillwater Elevations	Required levee elevation for Stillwater (inland) inundation areas (including 2' freeboard)	1% Max runoff elevation	Required levee elevation for runoff-influenced areas (including 1' freeboard)
WAY-12	578	580	579	580
WAY-13	578	580	582	582
WAY-14	578	580	581	581
WAY-16	578	580	580	580

Nonetheless, if one closely examines the contours for proposed work in Alfred Brush Ford which outlines the Federal Emergency Management Agency (FEMA) 100-Year Floodplain, data contained in The Corps Floodplain Management Services (FPMS) Study, seawalls recently completed by Fox Creek property owners and the project proposed City of Detroit Building Authority (DBA) Detroit Lower Eastside Flood Mitigation Project, Giffels-Webster Project #20370.00D, issued for bid on September 26, 2023 – **ALL the shoreline in the community will need to achieve 580' NAVD 88.**

Public Benefit, Public Sector Responsibility and Public Sector Limitations

Conflicting perspectives assert that private property owners on Fox Creek and at Bayview Yacht Club would be solely responsible for making investments to achieve the required 580' on their own property. However, this expensive approach would unnecessarily burden property owners for investments that in-fact provide benefit to the ENTIRE community. At the same time, it is necessary to examine the legal framework the governs responsible parties and related decisions.

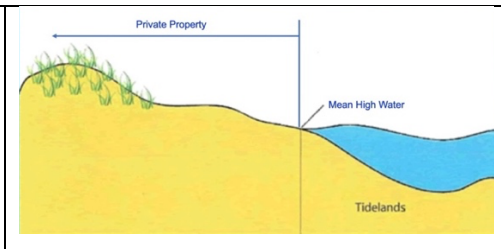
- Flood Control Act of 1936 was established and aimed exclusively at controlling floods through authorized civil engineering projects such as dams, levees, and other flood control measures through The Corps. Further, if flood protection is a public health and safety matter, protecting the community from flooding lies exclusively with the public sector.
- Section 205 of the 1948 Flood Control Act Program (CAP) authorizes the Corps of Engineers to plan, design, and construct structural and non-structural flood control projects. The feasibility and planning process of simply identifying potential projects will take two to three years alone.
- Section 10 of the 1899 Rivers and Harbors Act and Section 404 of the 1977 Clean Water Act give The Corps the authority to issue permits for construction in water bodies. The Natural Resources and Environmental Protection Act, 1994 PA 451 provides authority for the State's Department of Environment, Great Lakes and Energy (EGLE) to issue permits for construction in bodies of water.
- Water Body Barrier Ordinance (Chapter 8, Article XV, Division 4, Subdivision C), was enacted in July 2022 to enhance the health, safety, and general welfare of the public and protect natural resources by requiring property owners to obtain and maintain a Certificate of Registration. Modeled after the City's Rental Registration Program, the ordinance requires the owners of property adjacent to bodies of water to register their properties, engage qualified professionals to assess their seawall's condition, submit to the Buildings Safety Engineering and Environment Department (BSEED) a report of findings and if structurally deficient, a plan to bring ensure seawalls are sound. Per 8-15-523. (b), single or two-family residential dwellings are exempt.
- Detroit Zoning Ordinance is codified in Chapter 61 of the 1984 Detroit City Code. The Zoning Ordinance is the set of regulations that amongst other things, established land use. Land use would be the key factor used to determine the property owner's exemption or compliance with Article VII. Residential Zoning District, Division 2 and 3 and according to Map 31 of the Zoning Ordinance, the majority of land along Fox Creek is R1 and R2, even though some parcels are used for commercial purposes.
- Chapter 8 of the Detroit Code of Ordinances holds the rules for the Detroit's Building Code. All municipalities use the Michigan Building Code which is based upon the 2015 International Building Code. Building codes are the minimum design and construction requirements to ensure safe and resilient structures. They are part of the series of laws that are designed to protect the life and safety of the public as occupants of buildings, and to protect the community in general.
- Property Maintenance Code in Chapter 8, Article XV of the Detroit City Code (42-2-97), requires property owners to take responsibility for maintaining property clean and clear between the center of the alley to the center of the street.
- Blighted Area Rehabilitation Act 344 of 1945 defines blight as a pattern of deterioration in physical, economic, or social conditions, and characterized by functional obsolescence of buildings as well as physical deterioration of structures, substandard building(s) or facility conditions.
- Castle Doctrine is often used by "stand your ground" proponents to support their gun rights, but the Doctrine has a much broader application based on the concept that people have the right to do what they want in their own home, and that other people nor the state have the right to interfere in people's private lives.

Principal or Statute	Therefore Rationale
Flood protection provides public safety for the community.	Flood protection is a public sector responsibility.
The Corps and EGLE have regulatory authority to issue permits.	Neither agency have the authority to dictate a height requirement.
Waterbody Barrier Ordinance exempts single and two-family residences and the zoning classification for Fox Creek land is R1 and R2.	The City has no authority to cause Fox Creek property owners to comply with the Waterbody Barrier Ordinance.
Unless a building's structural integrity is dependent on a seawall or other shoreline condition that is creating a hazard by failing to support the structure would it be considered blighted.	The City has no authority to issue blight violations for shoreline conditions on Fox Creek.
Property owners have the freedom to care for their property as they choose.	The City CANNOT dictate how property owners invest their money.

Public Trust Doctrine and Property Control

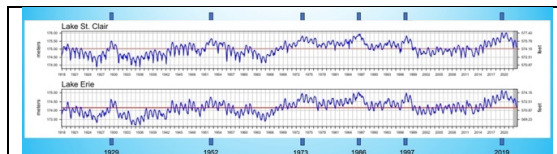
There are various ways real property can be controlled, including:

- Fee Interest – Taking title/ownership to the property;
- Lease – Renting the property;
- Easement – Allowing access to and use of the property by a third party, often used by utilities and common in Detroit's alleys; and
- Public Trust – Allowing public access along shorelines.



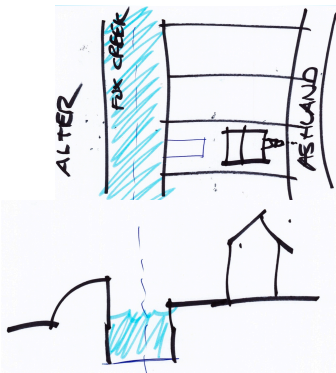
In Michigan, the Great Lakes are subject to the Public Trust Doctrine. The State Supreme Court has held that exclusive private property begins at the ordinary high-water mark and as such, members of the public have a legal right to access the water or walk on the shore below the ordinary high-water mark.

Most people are familiar with their right to walk along the shore and to use our Great Lakes water freely, even if private ownership of land runs up to the waters' edge. In 2005, the Michigan Supreme Court's Glass v Goeckel decision confirmed that private title of land on Michigan's Great Lakes remains subject to the public trust beneath the ordinary high-water mark.



The mighty Great Lakes are the largest source of fresh water in the world with basins that extend from Ontario to Ohio. Throughout the Great Lakes and on the oceans, beach sand and dunes are not only for our recreation, but play a critical role in flood protection. The nourishment of these important lands is critical in the literal wake of climate caused sea level rise and the decades

long cycle of rising water levels in the Great Lakes due primarily to development and loss of pervious surfaces over seventy years. While it typically takes five consistent years of heavy rains to see a rise in lake levels, this combined with the loss of farmland has caused a consistent rise in the Great Lakes on a twenty to thirty-year cycle as demonstrated by data collected by the National Oceanic and Atmospheric Administration (NOAA) and The Corps. The effect of these human actions – climate and development – are impacting the multi-state region, but nowhere are they being more felt than in Jefferson-Chalmers.



Even though the riparian area under Fox Creek is shared by both public and private interests, in 1917, William Klenk platted the Lighthouse Subdivision noting specifically, “that the streets and canals thereon are hereby dedicated to the use of the public.” In *Lepire v. Klenk*, the Supreme Court held that the way [Fox Creek canal] is a navigable stream or canal and a public highway and that it should be used by the public freely, without objection or obstruction.

Since the construction of the Fox Creek Enclosure in the 1920s bringing combined flows from the Grosse Pointes, the canal has been a spillway for the Fox Creek Gates and the Combined Sewage Outfall (NPDES Permit MI0022802, Outfall #80 - Prohibited) at the canal’s headwaters at East Jefferson and Ashland, allowing for the conveyance of the CSO to the Detroit River. For one hundred years, the Detroit Water and Sewerage Department (DWSD) and now, Great Lakes Water Authority (GLWA) have had a de-facto easement over Fox Creek necessary to release the discharge and therefore, bear not only responsibility for maintaining it but also for flooding caused directly by a significant increase in water levels along the canal during discharges.

Public Investment in Private Property

Many of the public stakeholders have asserted that the various public agencies that might underwrite investments in flood protection cannot do so on public property. That is a false narrative. Here’s why.

- Detroit’s Housing & Redevelopment Department (HRD) “invests in homeowner repairs their homes – promoting **public health and safety**” and Michigan State Housing Development Authority (MSHDA) programs “assist qualified homeowners in making repairs and improvements.” Improvements like roofs, windows, furnaces, and hot water heaters improve a home’s safety and resilience.
- Sponsored by DWSD, the Basement Back-up Protection Program focuses on preventing system back-up on private property and is a **flood mitigation, health and safety** matter.
- Brought to national attention by the Flint Water Crisis, Lead Service Line Replacement is on private property and clearly a **health and safety** issue.
- In support of the **\$215,000** Street Art for Mankind murals program, Detroit’s Corporate Counsel recently asserted the that using public money on private buildings “**enhances the physical circumstances** . . . would be in the **public’s interest**.”



- The privately-owned Edenville Dam failure in Midland cost the State **\$50 million**.
- The Michigan Legislature approved a **\$20 million** investment in the Copper Peak Ski Jump in Ironwood from the Bipartisan Infrastructure Law.
- The Corps is currently implementing a 100% Federally sponsored, **\$1.76 billion** investment in 300 miles of bay and shoreline dunes and beach improvements from Fire Island to Montauk Point (FIMP) Project. While the FIMP Project will provide critical resilience far beyond the shoreline, that is **\$6 million per mile** of public investment on private property whose purpose is to reduce storm damage while maintaining or enhancing natural resources.



Public investments on privately owned property are common. Making public investments on private property to remove the floodplain in Jefferson-Chalmers will unlock economic opportunity. By benefitting the ENTIRE community, it will enhance physical circumstances for the public’s interest. **How is it possible that The Corps can spend \$6M per mile on the shoreline of millionaire property owners in New York, but not the residents of Jefferson-Chalmers?**

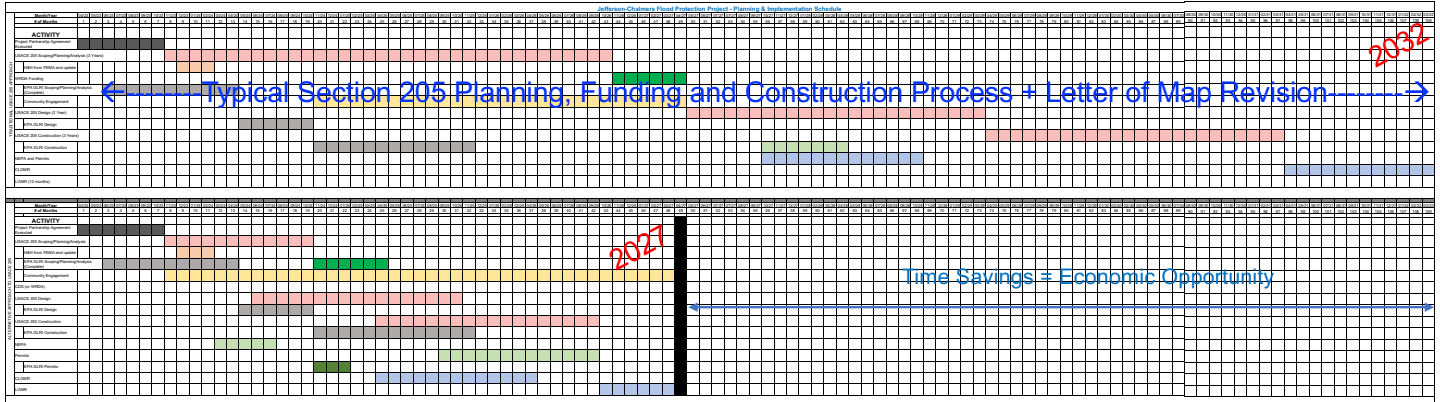


Finally, all three alternatives proposed in The Corps FPMS Study restrict access to Bayview by installing a flood wall. This is also unacceptable to the community and especially by those directly impacted including Bayview Yacht Club, KAM Marine and the 48 marina condominium owners. Instead, topographical changes along Clairpointe from the end of the levee recently installed by GLWA to high ground in Maheras/Gentry Park along with relocating the entrance to Bayview is proposed and will provide flood protection along Conner Creek.



Schedule

Jefferson-Chalmers Flood Protection Project – Planning & Implementation Schedule



With two to three years of planning alone, the trajectory of The Corps typical Section 205 Flood Mitigation Program along with FEMA's Letter of Map Revision approval could take more than a decade. In the meantime, the community is locked out of economic opportunity, unable to access Federal resources to support the community's revitalization. As a result, The WATER Project seeks an alternative path that will meet all the 205 requirements but remove the floodplain more quickly.

Jefferson-Chalmers Flood Protection Project

Published in March 2023, **SOLVING THE COMPREHENSIVE INTERCONNECTED WATER RESOURCE MANAGEMENT CHALLENGES IN THE JEFFERSON-CHALMERS COMMUNITY THE COST OF CLIMATE**, an Engineering Report twenty-seven professionals with nearly seven centuries of collected expertise, identified a variety of projects, that when collected together would provide a single line of defense against future flood threats and would remove the community from the floodplain.

Use	Amount
Shoreline Restoration	\$23.40
Seawalls	11.50
Bayview Changes	5.90
Contingency	10.00
Total	\$51.20

Source	Amount (M)
CDBG-DR	\$10.00
EPA-GLRI Shoreline	9.25
State of Michigan	1.00
DBA Proposed Project	7.00
USACE Section 205	10.00
Total Available	37.25
Balance Needed	4.00 - 14.00
Total	\$41.25 - 51.25



Decision-Making

A July 2022 Funding Agreement between the Mayor's Office and Detroit Building Authority (DBA) advanced \$1 million for "facilitating a flood mitigation study for the Jefferson Chalmers area." Request for Qualifications /Proposals was advertised on November 4, 2022 and contract for those professional services was executed with Giffels-Webster on December 15, 2022. On September 26, 2023, the DBA issued for bid, Detroit Lower Eastside Flood Mitigation Project, Giffels-Webster Project #20370.00D. The DBA has awarded the contract to M-K Construction Co., Inc. – the single and only bidder – and that funding for the project and other related activities are likely the subject of the upcoming request to Council. The entire proposed project is unnecessarily expensive, technically deficient and inconsistent with previously approved plans and a result, is a waste of precious public resources.

Prior to and at the October 2022 community meeting where the proposed closing the canals or limiting access to them was rejected, City Administration Officials made numerous commitments to engage and work with the community to seek solutions. More recently, DBA officials are on record during an interview with WTVS stating that, "we have to look at all the options . . . so we can have all the facts . . . we don't know what that change will be, **unless we work together.**" That has not occurred. Even JP Morgan Chase understands the importance of community decision-making when it states in its Detroit Report, "*Authentic engagement of residents is central to any redevelopment or revitalization approach. **Change does not happen without creating space and prioritizing community buy-in and decision making.***"

The Giffels-Webster scope includes a Report of Findings following the assessment of the shoreline, delivery of five (5) different shoreline edge conditions and a community meeting. We have not seen those deliverables and to date, no community meeting has been scheduled.

Conclusions

- Unlocking economic opportunity by removing the floodplain as quickly as possible is a high priority.
- Closing the canals and otherwise limiting access is not acceptable.
- The entirety of the shoreline in Jefferson-Chalmers must be brought to 580' NADV to remove the community from the floodplain. There is no authority to ensure shoreline improvements comply with that height requirement.
- The Waterbody Barrier Ordinance exemption along with the Castle Doctrine mean the City has no authority to require property owners to make shoreline investments.
- Natural shoreline investments are less expensive than seawalls. They support a healthy ecosystem, reduce wake and are safer for a variety of watercraft. City-owned and strategic vacant properties along Fox Creek provide the opportunity for natural shoreline. Natural shoreline investments are supported by a large, international constituency of stakeholders focusing on improving the Detroit River.
- Flood protection is a health and safety matter and therefore, exclusively a public sector responsibility.
- Public investments in private property are common.
- There is no disadvantaged community in Michigan that is impacted by climate like Jefferson-Chalmers. Therefore, the Federal and State Justice40 commitments along with other public resources should be identified to complete the necessary improvements with haste.
- The Corps Section 205 Program process could take more than a decade and there is an alternative path to removing the floodplain more quickly.
- The Detroit Building Authority's Detroit Lower Eastside Flood Mitigation Project should be denied funding and re-designed to include best practices and preferred shoreline restoration investments.
- The community must be involved in decision-making, not after all the decisions are made.

###

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