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Thieme Drive Floodwall System Design

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Abstract: The Thieme Drive neighborhood in Fort Wayne, Indiana is currently on the National Historic Register and has been subjected to frequent flooding from the St. Mary’s river. The City of Fort Wayne identified a critical need for design and construction of a floodwall system for this area. This senior design project is defined in collaboration with the City of Fort Wayne Flood Control Department and focuses on designing a floodwall system considering the historical significance of the area and the landscape along the boulevard. The floodwall system design involves proper selection and sizing of the wall to resist against sliding, overturning, bearing capacity failures. This floodwall system is currently being designed according to the Retaining and Floodwalls Engineer Manual developed by the US. Army Corps of Engineers. This project will aid in the mitigation of future flooding in the area.