

Stormwater Program & Service Charge

November 2013



Stormwater Program and Service Charge Approval

- On February 4, 2013, the City Common Council approved City Ordinance 34-12
 - Establishes the Stormwater Service Charge (Effective January 1, 2014)
 - Establishes the Stormwater Fund
 - Establishes the Stormwater Credit Program
 - Allows for the Stormwater Capital Program



Purpose of Stormwater Program

- Purpose
 - Improves quality of service
 - Improves water quality in waterways
 - Compliance with state and federal requirements (Municipal Separate Storm Sewer (MS4) Permit)
- Program Components
 - Stormwater capital improvement projects
 - Ongoing infrastructure operations and maintenance and regulatory compliance



Program Actions

- Complete approximately \$14 million capital projects
- Complete annual city-wide project costs of \$150,000
- Carryout ongoing operations costs of approximately \$375,000 annually



Equivalent Residential Unit

- **ERU**: Average impervious area on a residential property and equals 3,200 square feet
- Based on sample residential parcel measurements
- ERU establishes a base billing unit



Service Charge Billing Structure

- Monthly assessment is based on Impervious Surface Area (ISA)
- Residential property is billed one ERU
- Non-residential property is billed per total measured ISA

Example: Total measured ISA/3,200 = #ERUs

#ERUs * Rate = Monthly Bill amount



The Stormwater Service Charge

- The utility service charge rate is \$8.00 per ERU per month
- Residential property = 1 ERU(\$8.00)/month



- Residential property impervious surface area

1 ERU = \$8.00/month



Proposed Stormwater Service Charge

- Non-Residential property bill is based on total measured impervious area
- Non-Residential property = (Measured ISA/3,200*) X \$8.00/month

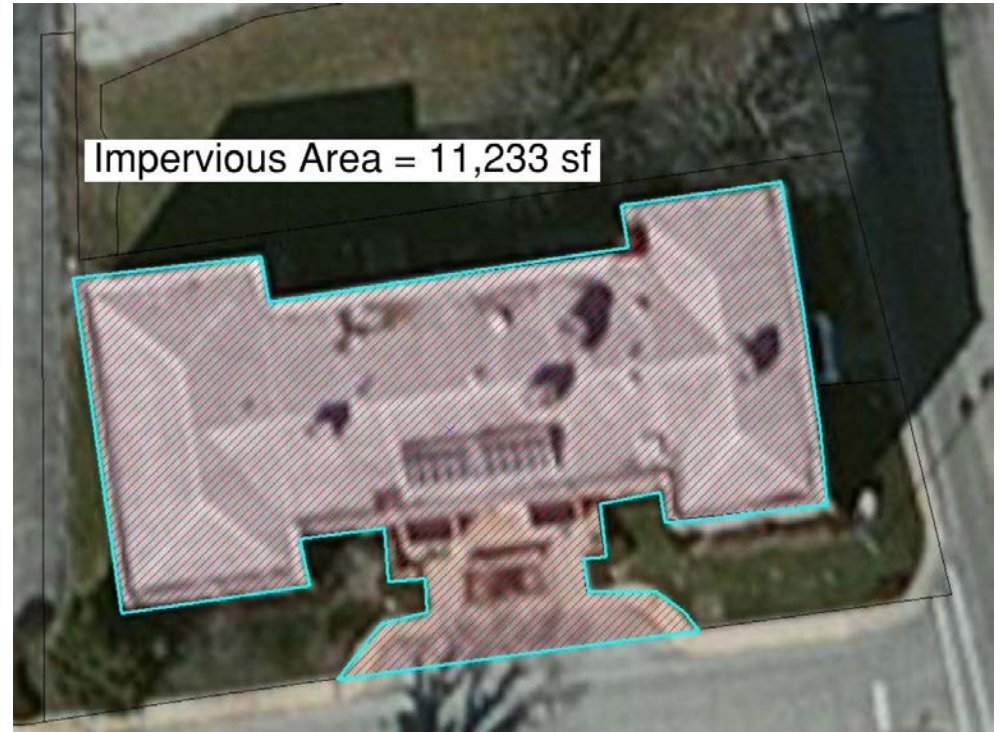
*ERU = 3,200 sq. ft. ISA



- Non-Residential property impervious surface area

$$11,233 / 3,200 = 4$$

$$4 \text{ ERUs} \times \$8.00 = \$32/\text{month}$$



Stormwater Rate Reduction

- 50% rate reduction allowed for Residential users if they:
 - Are head of household; and
 - Are either over 65 years of age or permanently and totally disabled as determined by the SSA; and
 - Have a total annual household income which is at or below 150% of the poverty level as determined by the U.S. Health and Human Service Guidelines



Stormwater Fund

- Dedicated stormwater funding
 - Funds stormwater NPDES permit compliance requirements
 - Funds stormwater specific operations, maintenance and capital projects
 - Removes burden from Wastewater Fund



Stormwater Credit Program

- Non-residential user may qualify for
 - Water quality or quantity credit
 - Increased credit for use of green/sustainable practices
 - Education credit
- For more information about eligibility visit <http://westlafayette.engineering.stormwater>



Program Expectations

- What can you expect
 - Complaint response and continued operations and maintenance
 - Completion of defined stormwater capital projects
 - Identification and completions of annual city-wide projects



Reporting Drainage Complaints

- To report drainage complaints contact the City Engineering Department at:

(765) 775-5130



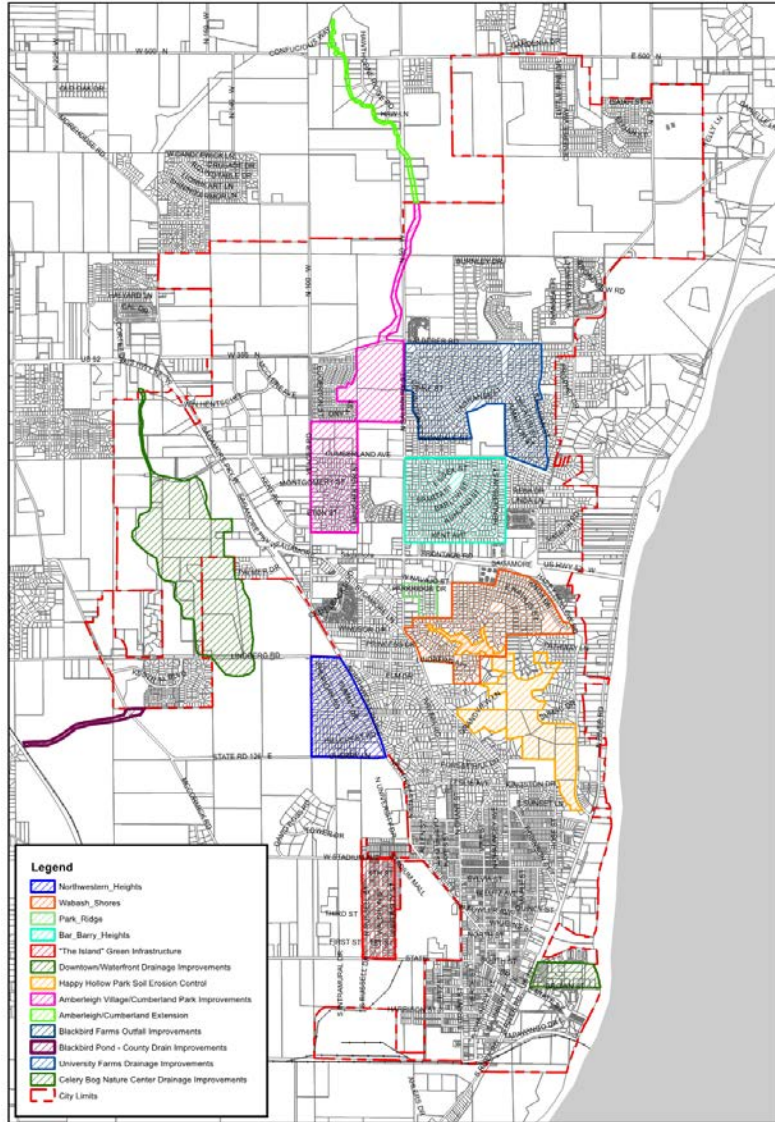
Defined Capital Projects

- Known area-wide drainage problem areas
- Substantial in scale and cost
- Result in large scale improvements for community



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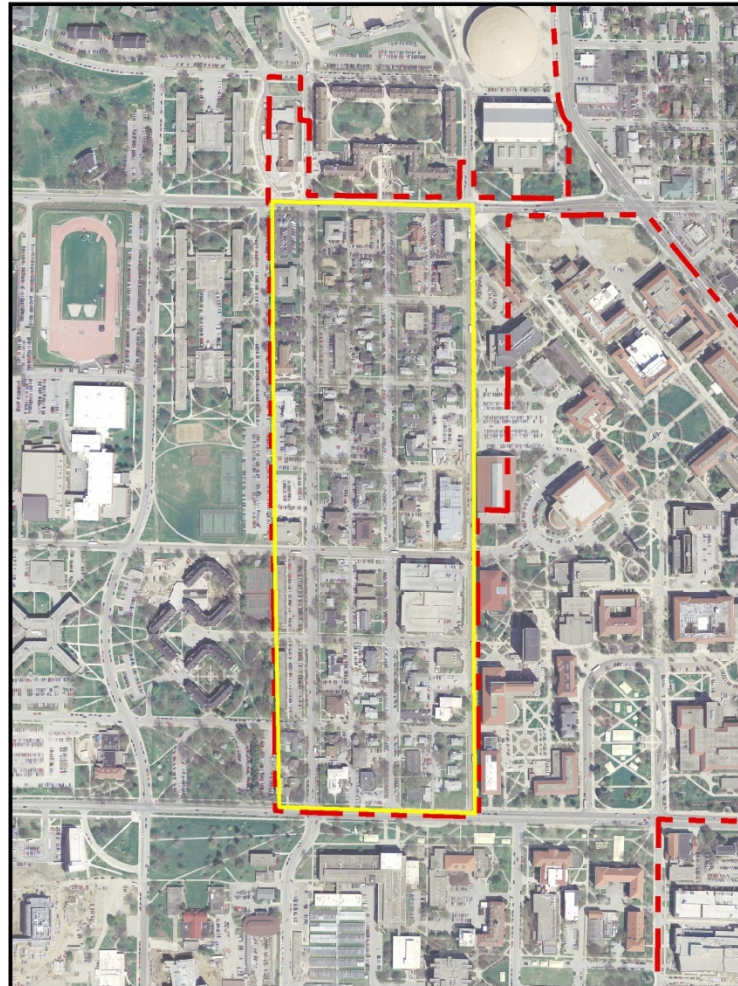


Legend

- Northwestern_Heights
- Wabash_Shores
- Park_Ridge
- Bar_Barry_Heights
- "The_Island" Green Infrastructure
- Downtown/Waterfront Drainage Improvements
- Happy Hollow Park Soil Erosion Control
- Amberleigh Village/Cumberland Park Improvements
- Amberleigh/Cumberland Extension
- Blackbird Farms Outfall Improvements
- Blackbird Pond - County Drain Improvements
- University Farms Drainage Improvements
- Celery Bog Nature Center Drainage Improvements
- City Limits



“The Island” Green Infrastructure



“The Island” Green Infrastructure

- **Project:** Rain garden and streetscape installations
- **Est. Cost:** \$2,400,000
- **Benefits**
 - Improved water quality
 - Enhanced aesthetics with through streetscaping with native plantings
 - Additional storm inlets and curb cuts
 - Trash and silt capture



Downtown/Waterfront Drainage Improvements



Downtown/Waterfront Drainage Improvements

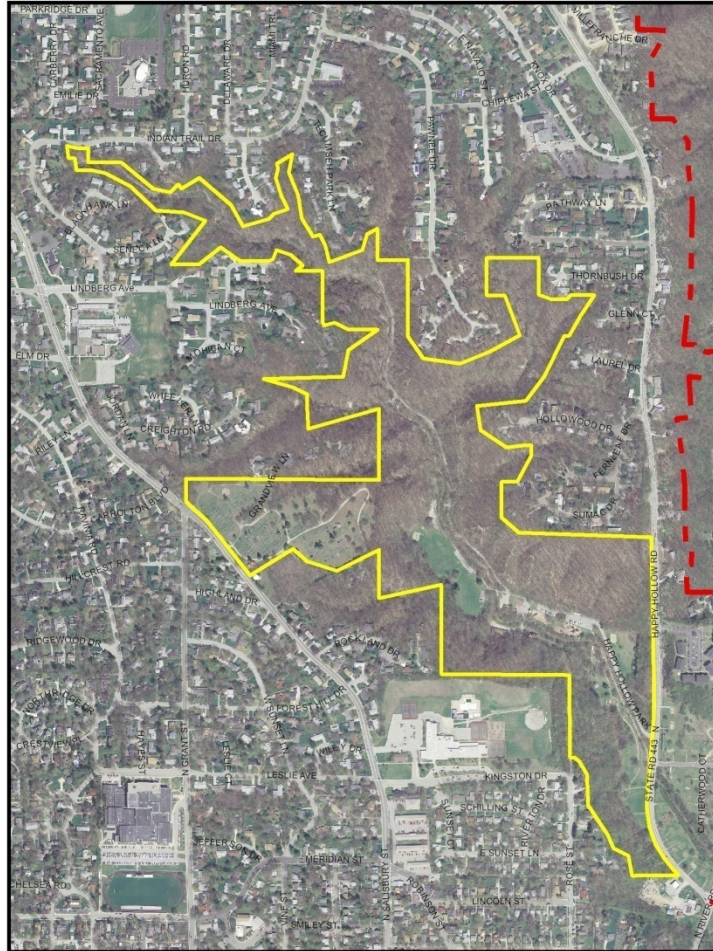
- **Project:** Drainage improvements
- **Est. Cost:** \$500,000
- **Benefits**
 - Reduced stormwater runoff through green infrastructure implementation – treatment wetlands and rain gardens
 - Improved drainage capacity in vicinity for future development with addition of storm sewer and water quality units



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Happy Hollow Park Erosion Control

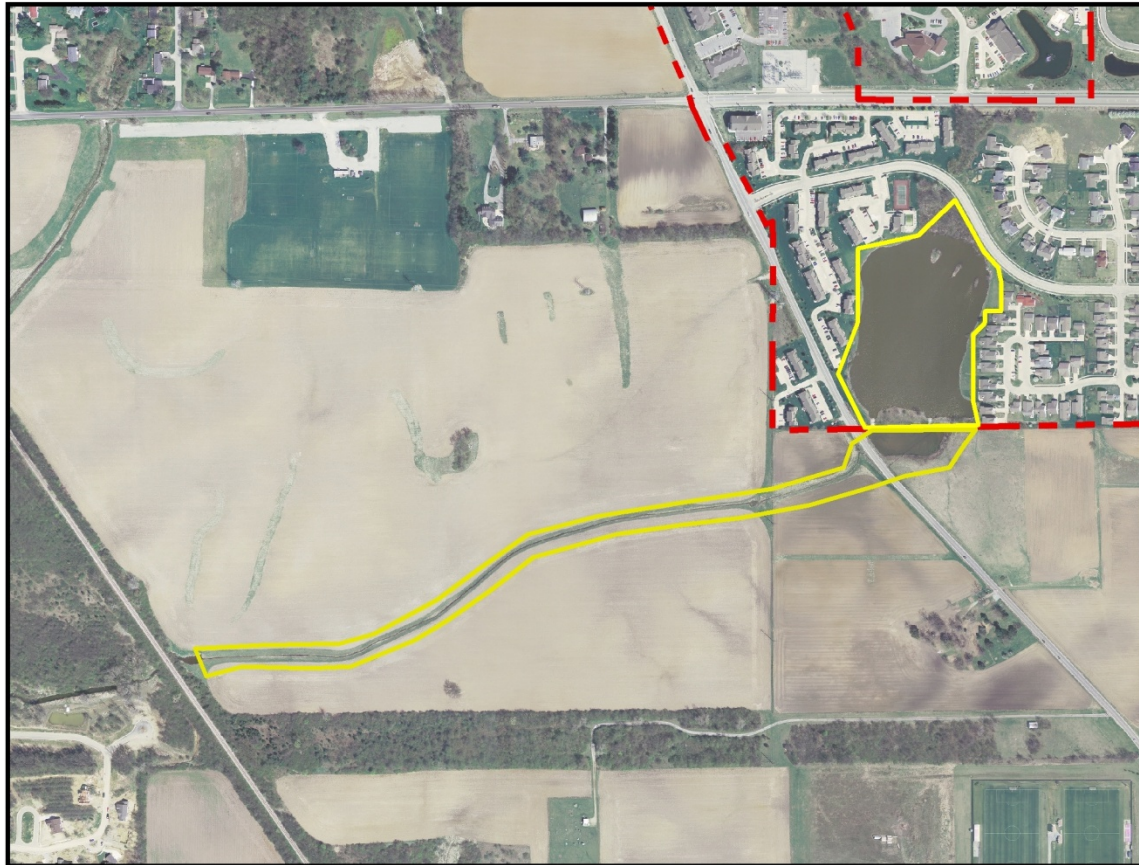


Happy Hollow Park Erosion Control

- **Project:** Slope stabilization and erosion control
- **Est. Cost:** \$4,600,000
- **Benefits**
 - Systematic approach to Happy Hollow ravine erosion control
 - Improved drainage in park and neighborhoods with new channelization and piping
 - Ongoing slope stabilization in areas most likely to fail
 - Reduced sediment laden runoff flowing into Wabash River



Blackbird Pond Stormwater Improvements



Blackbird Pond Stormwater Improvements

- **Project:** Detention basin retrofit, bank stabilization
- **Est. Cost:** \$800,000
- **Benefits**
 - Enhanced dissolved nitrogen and phosphorus pollutant removal
 - Stream bank area stabilization, wetland grading and native wetland plantings
 - Channel lining for drain stabilization west of McCormick Road



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Plaza Parks/Cumberland Park Drainage Improvements



Plaza Parks/Cumberland Park Improvements

- **Project:** Water quality, drainage improvements
- **Est. Cost:** \$2,800,000
- **Benefits**
 - Improved runoff conveyance capacity of Boes Ditch
 - Stabilization of wooded drainageways through Cumberland Park
 - Reduced standing water, flooding in Plaza Parks neighborhood



University Farms Drainage Improvements



University Farms Drainage Improvements

- **Project:** Drainage improvements
- **Est. Cost:** \$1,200,000
- **Benefits**
 - Reduced occurrences of standing water in backyards and flooded basements
 - Improved drainage throughout
 - Water quality enhancements through infiltration practices



Celery Bog Drainage Improvements



Celery Bog Drainage Improvements

- **Project:** Drainage improvements
- **Est. Cost:** \$1,000,000
- **Benefits**
 - Water quality enhancements through vegetative filters and wetland grading
 - Improved flow control with drainage structures placed along northern edge of project area
 - Improved access for nature center recreational users



Annual City-Wide Projects

- Mainly complaint driven
- Perpetual problems that can be solved with minimal design & funds
- Additional projects added yearly as they are encountered



Proposed City Wide Maintenance Projects



Bar Barry Heights – Maintenance Projects



Bar Barry Heights – Resident Yard Flooding

- Drainage patterns cause floods and holds water during rain events
- Health hazard during summers
- Estimated Project Cost: \$105,000



George Lummel Park Flooding

- Property line holds water after rain events
- Health hazard
- Estimated Project Cost: \$130,000



Bar Barry Heights – Sump Pump Discharge

- Residential sump pump discharges into road
- Hazardous driving conditions
- Public hazard
- Estimated Project Cost: \$46,000



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Park Ridge & Wabash Shores – Maintenance Projects



Indian Trail Drive Street Flooding

- Clogged inlet causes street flooding
- Routine maintenance required
- Estimated Project Cost: \$19,500



Wabash Shores Resident Yard Flooding

- Poor drainage patterns
- Yard floods and holds water during rain events
- Church construction contributes to runoff towards surrounding residents
- Health hazards



- Estimated Project Cost:
\$91,500



Nighthawk and Navajo Intersection Flooding

- Low point at northwest corner of intersection
- Holds water during rain events
- Estimated Project Cost: \$20,500

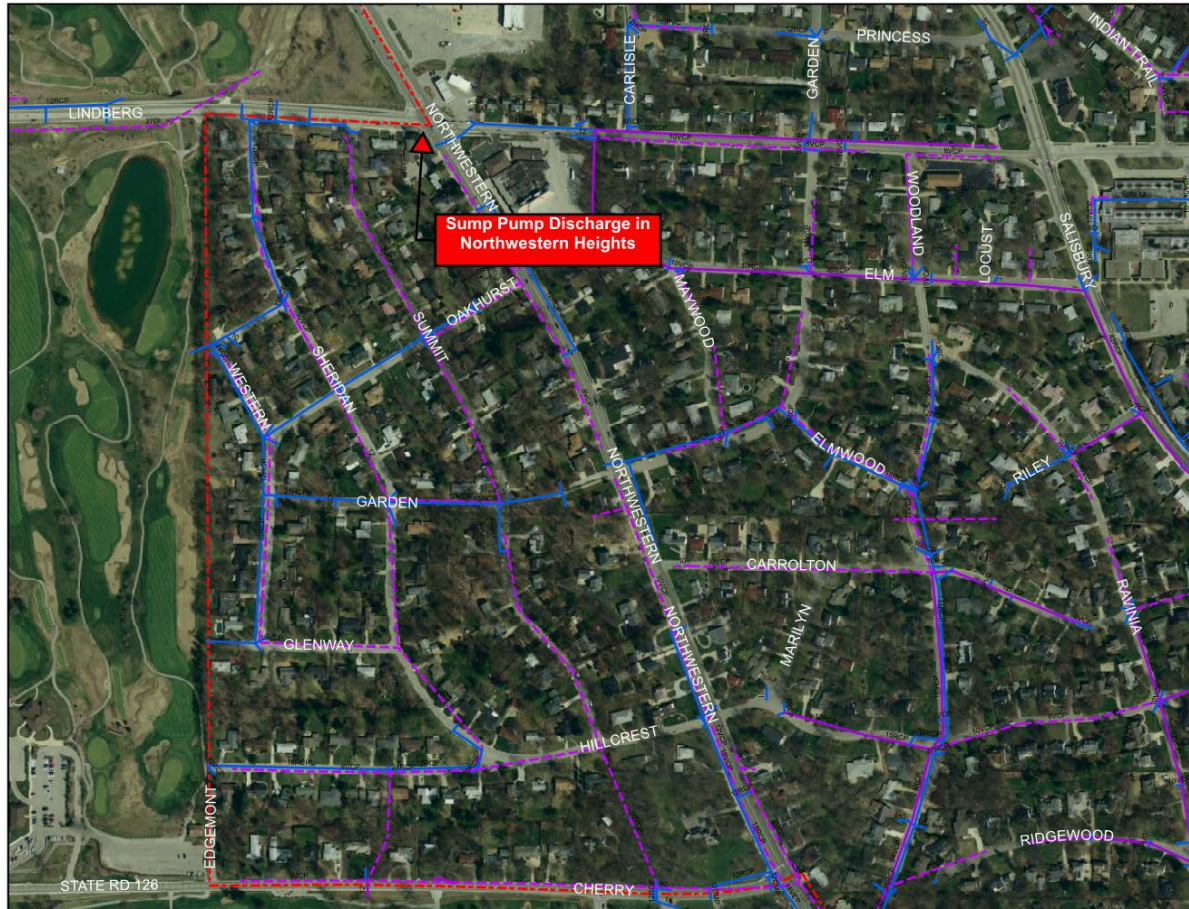


Salisbury Street – Two Projects

- Failing infrastructure
- Floods during rain events
- Curb and gutter failure
- Breaking pavement
- Lacks proper inlet spacing
- Estimated Project Cost: \$51,000*



Northwestern Heights – Maintenance Projects

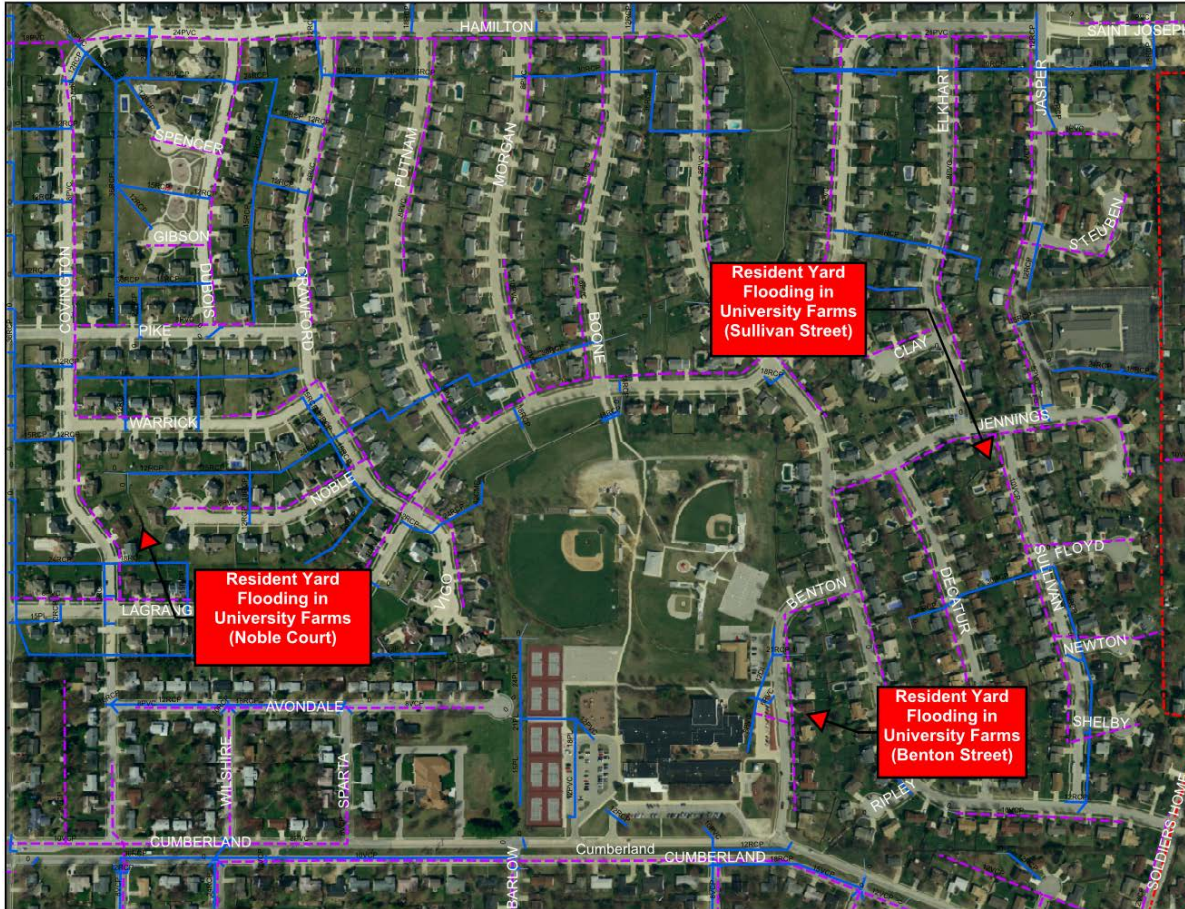


Northwestern Heights Sump Pump Discharge

- Sump pump discharges into intersection
- Hazardous driving conditions
- Intersection handles 37,000 vehicles per day
- Estimated Project Cost: \$65,000



University Farms – Maintenance Projects



University Farms – Benton Street Residential Flooding

- Fences and plantings within drainage easement
- Yards flood and hold water during rain events
- Water reaches electrical box during larger storm events



- Estimated Project Cost: \$85,000



University Farms – Sullivan Street Residential Flooding

- Poor drainage
- Yards flood and hold water during rain events
- Water reaches electrical box during larger storm events
- Estimated Project Cost: \$25,000



University Farms – Noble Court Residential Flooding

- Poor drainage
- Standing water
- Ground elevation raised with new construction
- Estimated Project Cost: \$31,000

