



# Woodbine Area Regional Drainage Improvement Project Public Meeting

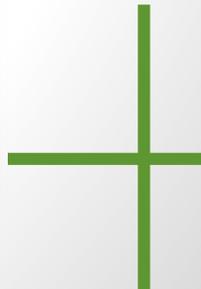
Village of Homer Glen

October 29, 2015

# Project Scope



- Develop a regional drainage improvement plan to address drainage problems for the area surrounding the property at 14240 W. 151<sup>st</sup> Street, previously know as the Woodbine Golf Course.
- The project limits include the Pebble Creek, Saddle Brook Run, Stadtler Ridge, Woodbine, and Woodbine West subdivisions, as well as the adjacent roadways.



# Project Location



# Determining Flooding Issues



- Meetings with Village and Homer Highway Department staff
- Photos of past events
- Review of topographic data
- Resident Questionnaire
- XP SWMM Models
  - Existing conditions calibrated to reflect flooding reports
  - Multiple storms modeled to determine the extents of flooding
  - 2D modeling used in Woodbine

# Past Events



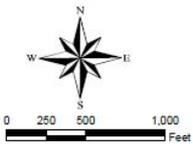
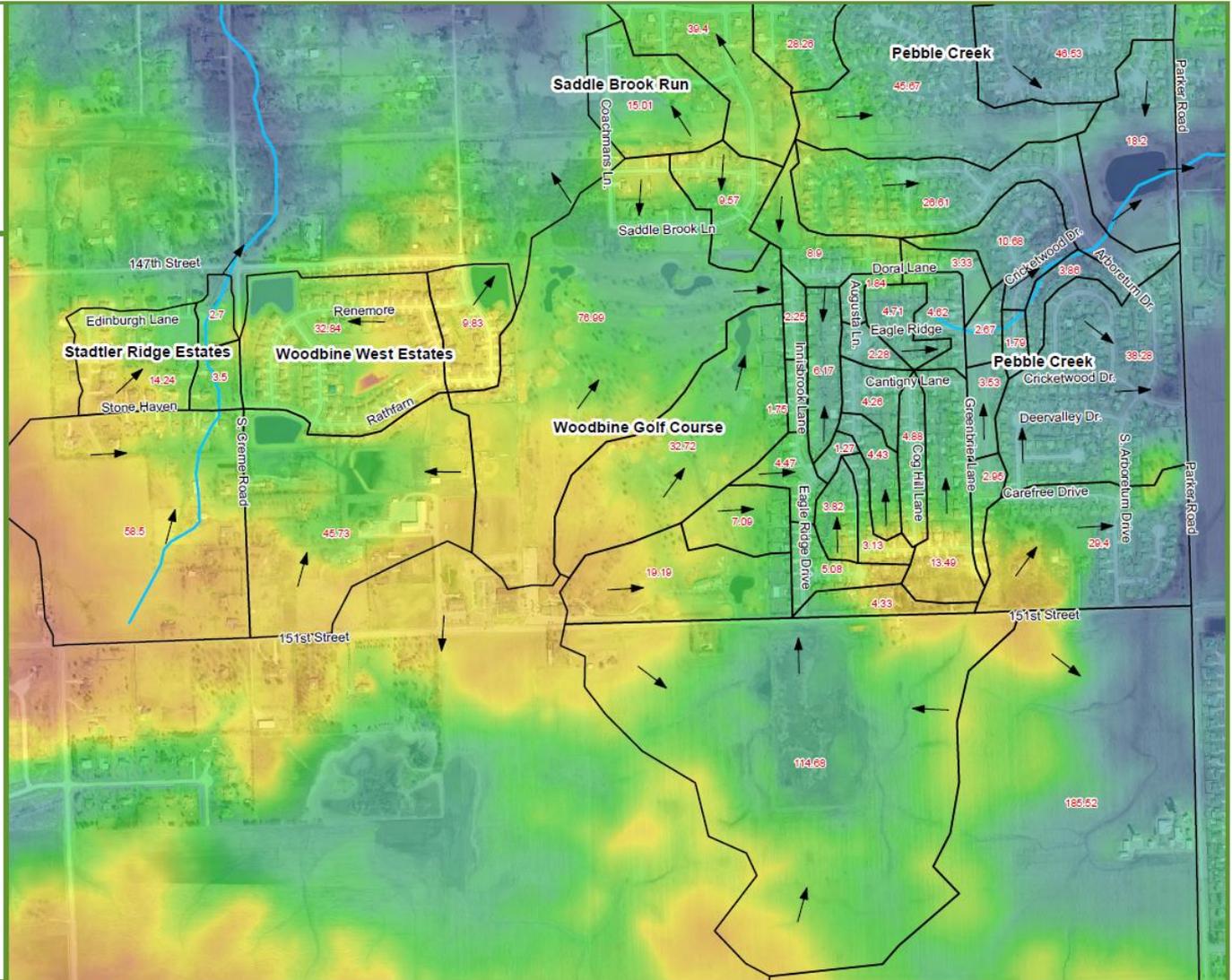
# Topographic Information

## Village of Homer Glen

### Drainage Patterns and Watersheds

#### Legend

-  Watershed Divides
-  Illinois Streams



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# Existing Conditions 1 Year Storm

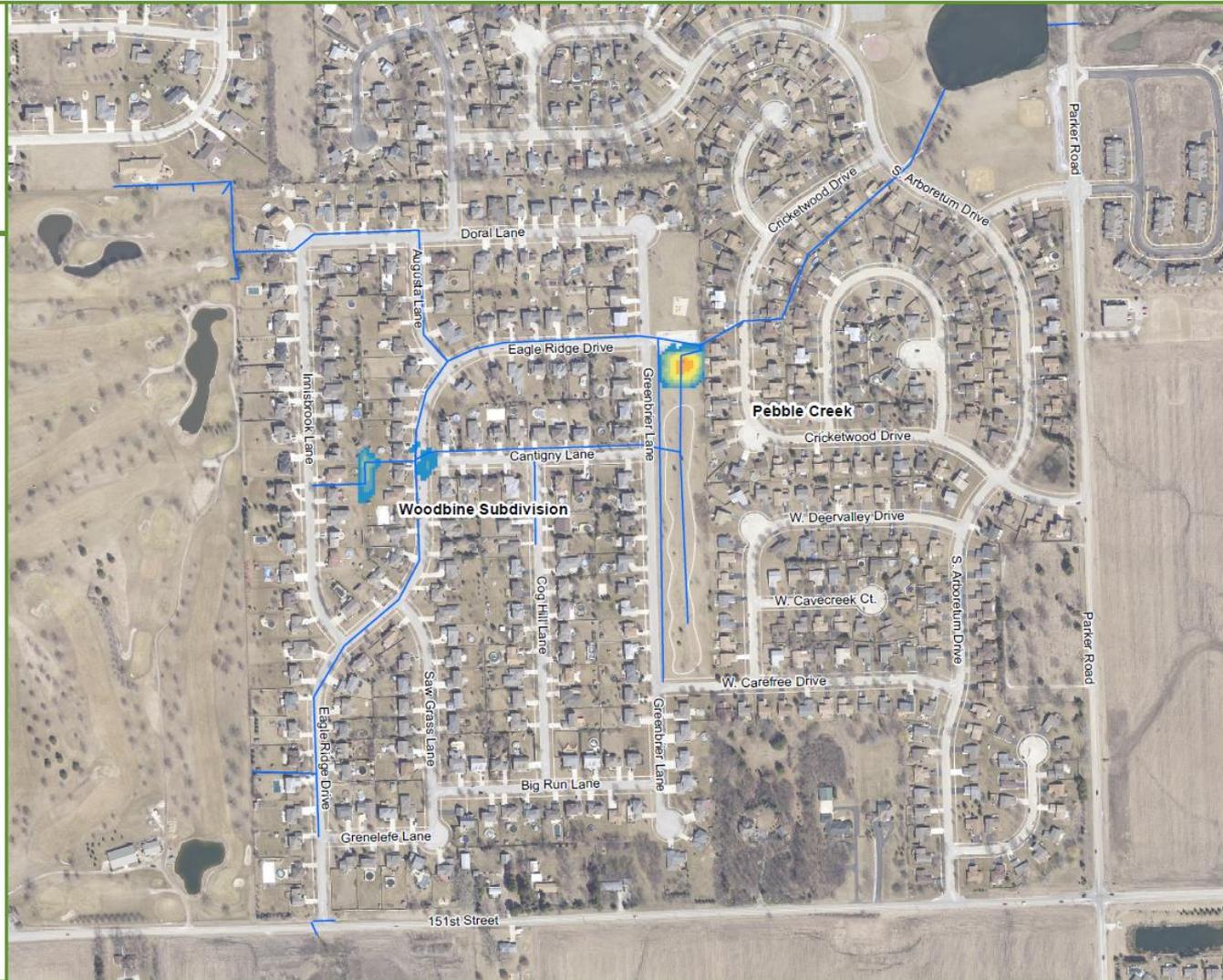
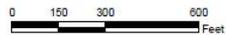
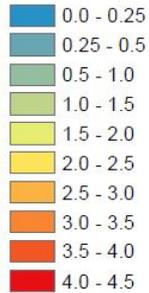
## Village of Homer Glen

### Existing Inundation Map (1-Year)

#### Legend

— Existing Storm Sewers

#### 1Yr Existing Flood Depth (feet)



# Existing Conditions 2 Year Storm

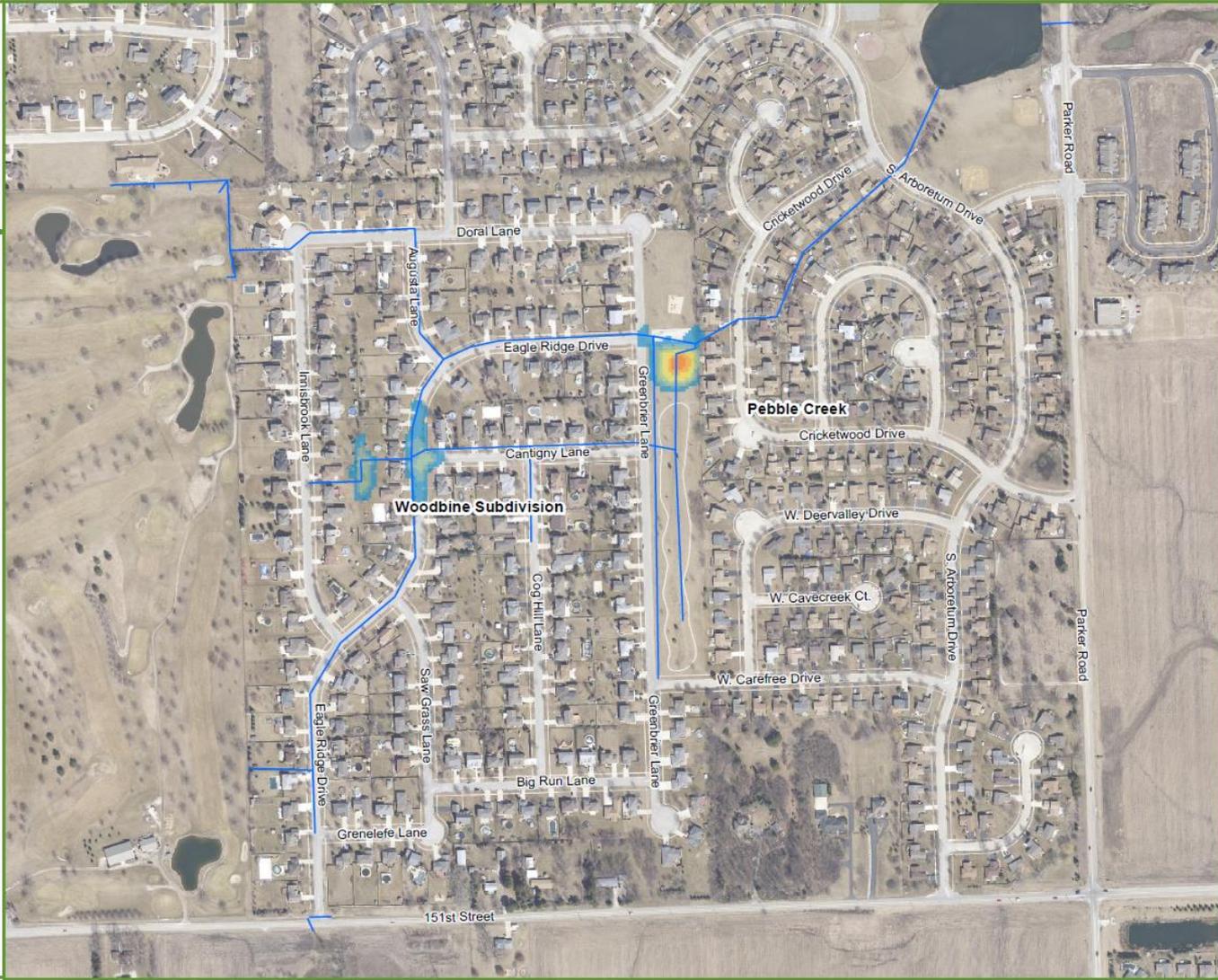
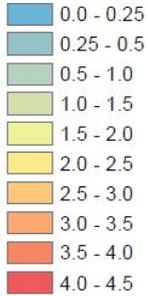
## Village of Homer Glen

### Existing Inundation Map (2-Year)

#### Legend

— Existing Storm Sewers

#### 2Yr Existing Flood Depth (feet)



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# Existing Conditions 5 Year Storm

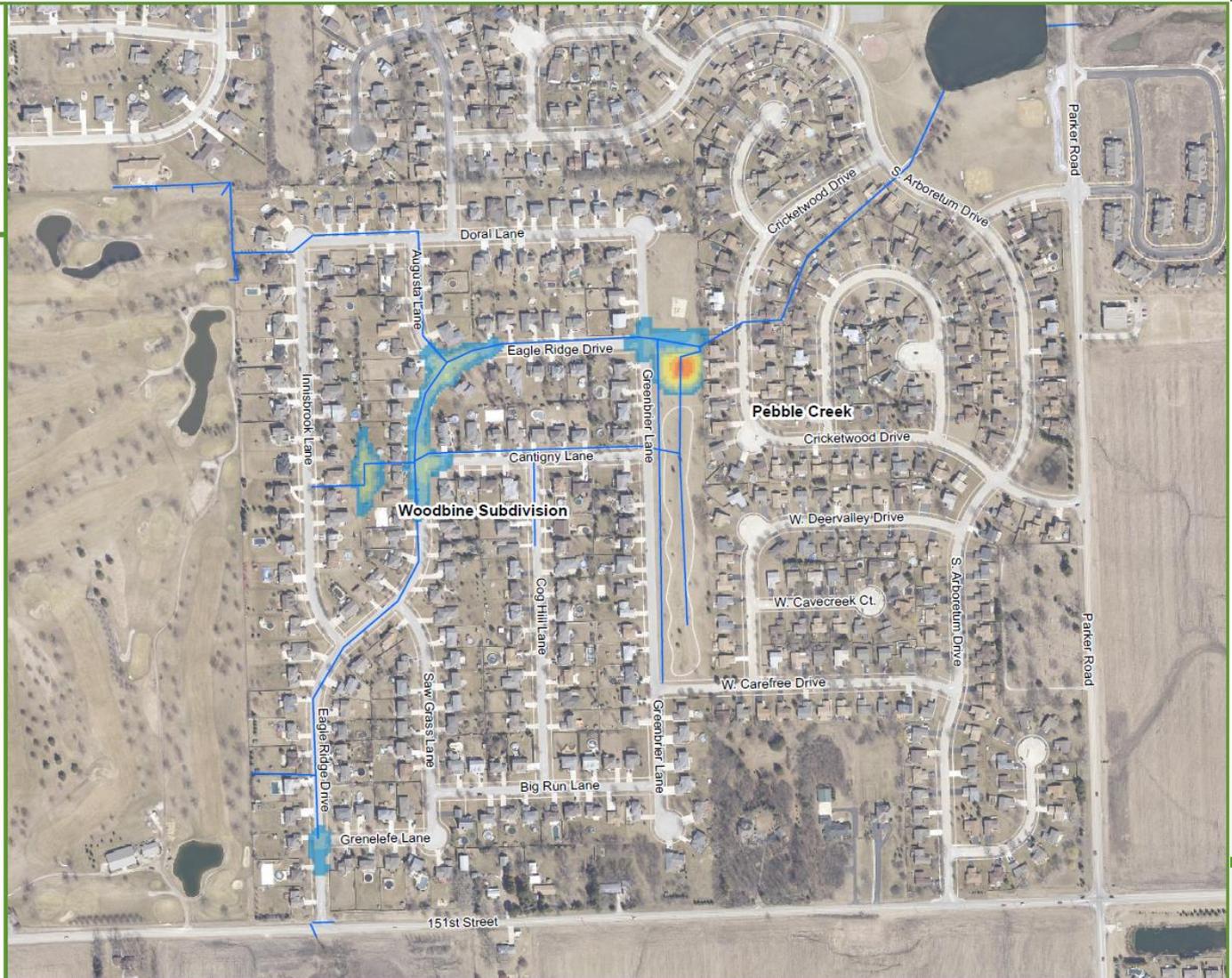
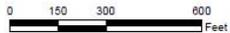
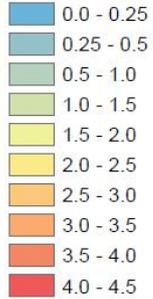
## Village of Homer Glen

### Existing Inundation Map (5-Year)

#### Legend

— Existing Storm Sewers

#### 5Yr Existing Flood Depth (feet)





# Existing Conditions 50 Year Storm

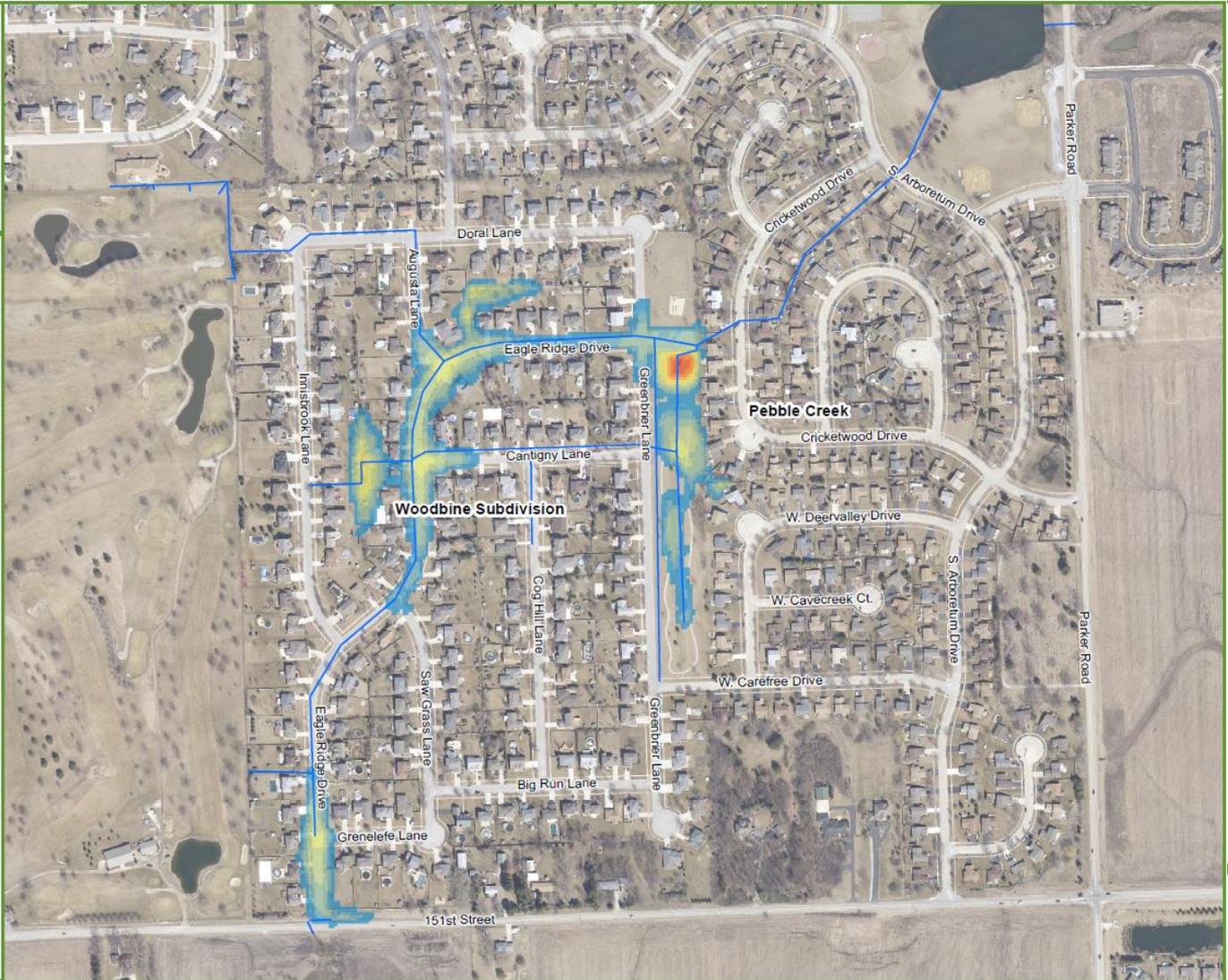
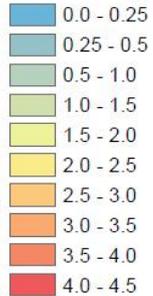
## Village of Homer Glen

### Existing Inundation Map (50-Year)

#### Legend

— Existing Storm Sewers

#### 50Yr Existing Flood Depth (feet)



# Existing Conditions 100 Year Storm



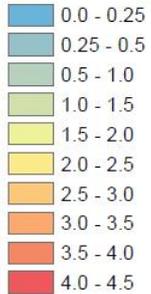
## Village of Homer Glen

### Existing Inundation Map (100-Year)

#### Legend

— Existing Storm Sewers

#### 100Yr Existing Flood Depth (feet)

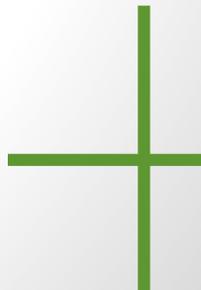


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# Solutions



- Detention – storing storm water and releasing it slowly
  - Two locations on the Woodbine property could have naturalized detention basins constructed.
  - These locations have been identified in the Long Run Creek Watershed Based Plan as being locations that could be used to improve water quality.
  - These basins will be visually appealing and serve as an amenity to residents.





# Naturalized Detention Basin Example

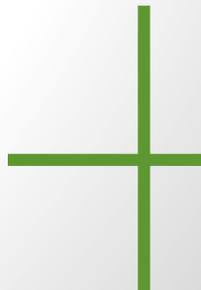


Wetland Example

# Solutions



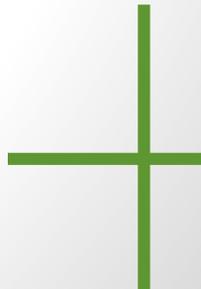
- Conveyance – storm sewers, ditches and swales
  - Improvements to the storm sewer system within Woodbine have been identified.
  - Two locations in Stadler Ridge Estates have been identified that could benefit from new storm sewer systems.
  - Multiple locations could benefit from the construction of new ditches and swales.



# Next Steps



- The Drainage Study is scheduled to be finalized by the end of November.
- The Village will review the recommendations.
- Final design and construction document preparation will be need to be completed prior to any implementation.
- Construction on select projects may begin in mid to late 2016, depending on the availability of funding.





## THANK YOU

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