



## Public Information Meeting

### Roof with a View

800 West Hill Street  
Suite 104  
Charlotte, NC 28208

**March 12, 2013**

6:00pm-8:00pm

Dewberry  
6135 Lakeview Rd. Suite 150  
Charlotte, NC 28269

ARCHITECTS ENGINEERS CONSULTANTS



## Hill Street Storm Drainage Improvement Project





**Matthew Gustis, PE**

City Engineering Team Program Manager

**Doug Lozner, PE**

City Watershed Area Manager

**Steven McCraney**

City Project Coordinator

**Danee McGee, PE, CFM**

City Project Manager

704-336-4103

*dmcgee@ci.charlotte.nc.us*

[www.charmeck.org](http://www.charmeck.org)

**Staff Introductions**



**Christopher Fleck, PE**

Project Manager

**Crystal Williams, PE, CFM**

Project Engineer

**John Keene, PE**

Project Engineer

**Jonathan Drazenovich**

Project Engineer



# AGENDA

Sign In

Charlotte Mecklenburg Storm Water Services Summary

Project Selection & Citizen Involvement

Existing Conditions Analysis Overview

Future Project Milestones

- Alternatives
- Selected Alternative
- Design
- Permitting
- Real Estate
- Construction



# Charlotte Mecklenburg Stormwater Services Summary



## Items that qualify for service:

- Public water that causes another qualifying problem, such as roadway and/or structural flooding.

## Items that DO NOT qualify for service:

- Private property issues. Such as parking lots, private pipes under buildings, downspouts, and private yard flooding.

## Goals

- To provide a storm drainage system that is safe, clean, and cost effective.
- To determine the best possible solutions by:
  - Considering Public Safety, Health & Welfare
  - Maximizing Benefit vs. Cost
  - Working to Reduce Potential Flood Risks

## What the program includes:

- Administration and Technology
- Water Quality
- Maintenance
- Engineering



## Why Hill Street was selected?

- ✓ Citizen Input from Property Owners (311 Requests)
  - ✓ Inadequate Existing Infrastructure
  - ✓ Observed Existing Road Flooding
  - ✓ Existing Structure Flooding
- ✓ Deteriorating Infrastructure
  - ✓ Aging culverts, pipes, and inlets
- ✓ CMSWS watershed ranking
- ✓ Larger watershed-wide and city-wide drainage issues



## What do we need from you?

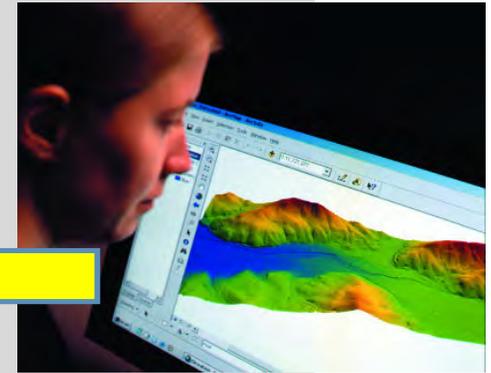
- Feedback on existing drainage issues not previously reported.
- Areas of roadway or structural flooding on your property or other areas you are aware of within the project limits.
- Support for the project's future phases.



**Integrating:**



**Field Data**



**Technology**

**Citizen  
Input**

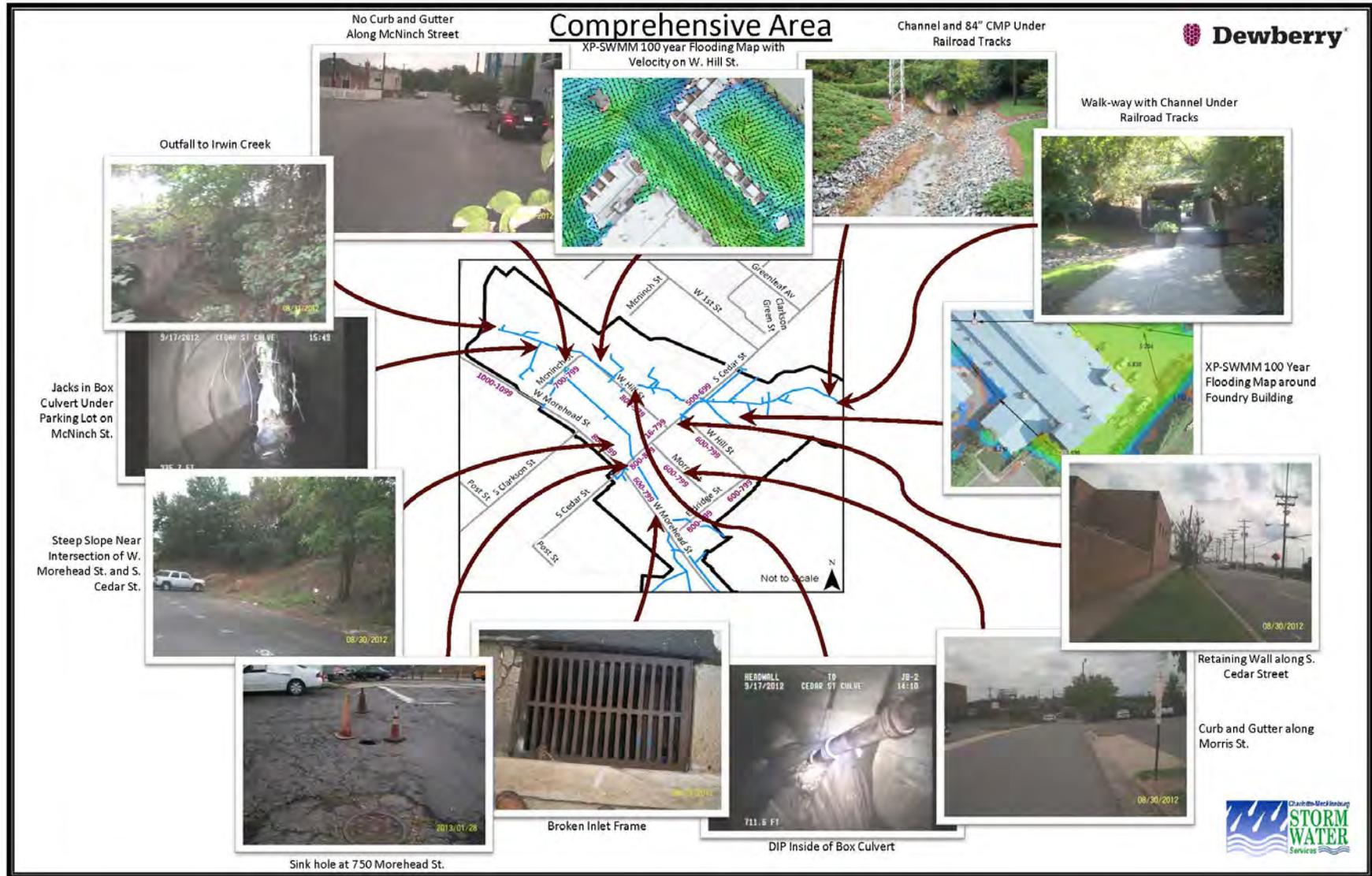


# Existing Conditions Analysis Overview

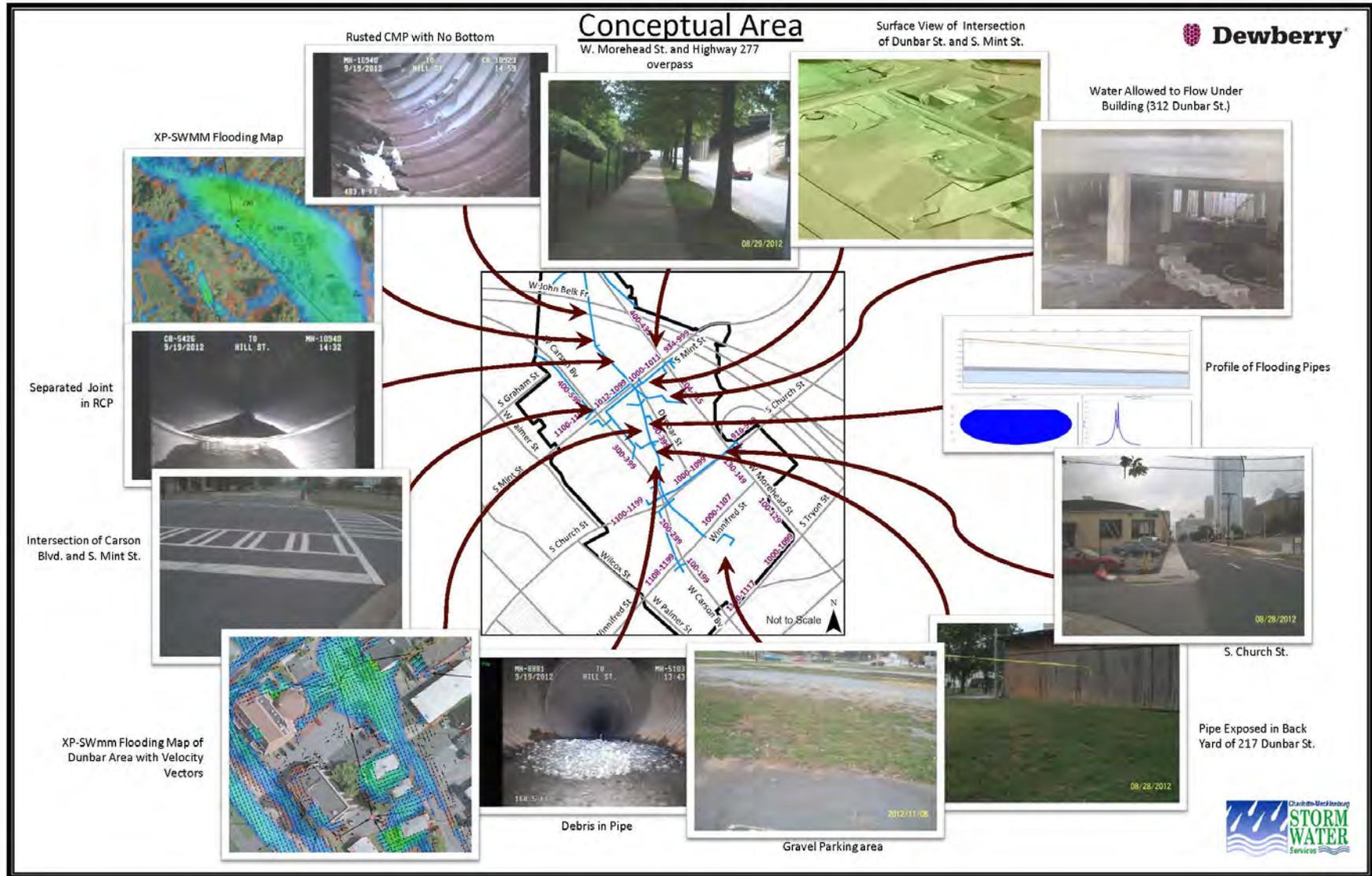
- Survey of Existing Information
  - Topographic Survey
  - System Inventory
- Existing Zoning, Land Use, Soils
- Engineering Evaluation of Existing System Performance
- Mapping and Reports of Engineering Results



# Existing Conditions Analysis Overview



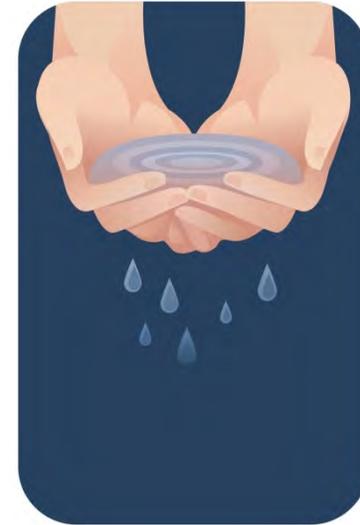
# Existing Conditions Analysis Overview



## Existing Conditions Analysis Results

-Based on nearly 50 different criteria for pipes, channels, inlets, etc., our consultants found that:

- 75% of pipes are deficient
- 40% of channels are deficient
- 100% of culverts are deficient
- 40% of inlets are deficient
- 70% of buildings are potentially flood prone



**These areas will be further evaluated to determine where improvements can be made within the CMSWS program goals and project objectives.**



# A

## Hill Street SDIP Citizen Input & Modeled Results

Irwin Creek

Potential Floodprone  
Vacant Lot (Typ)

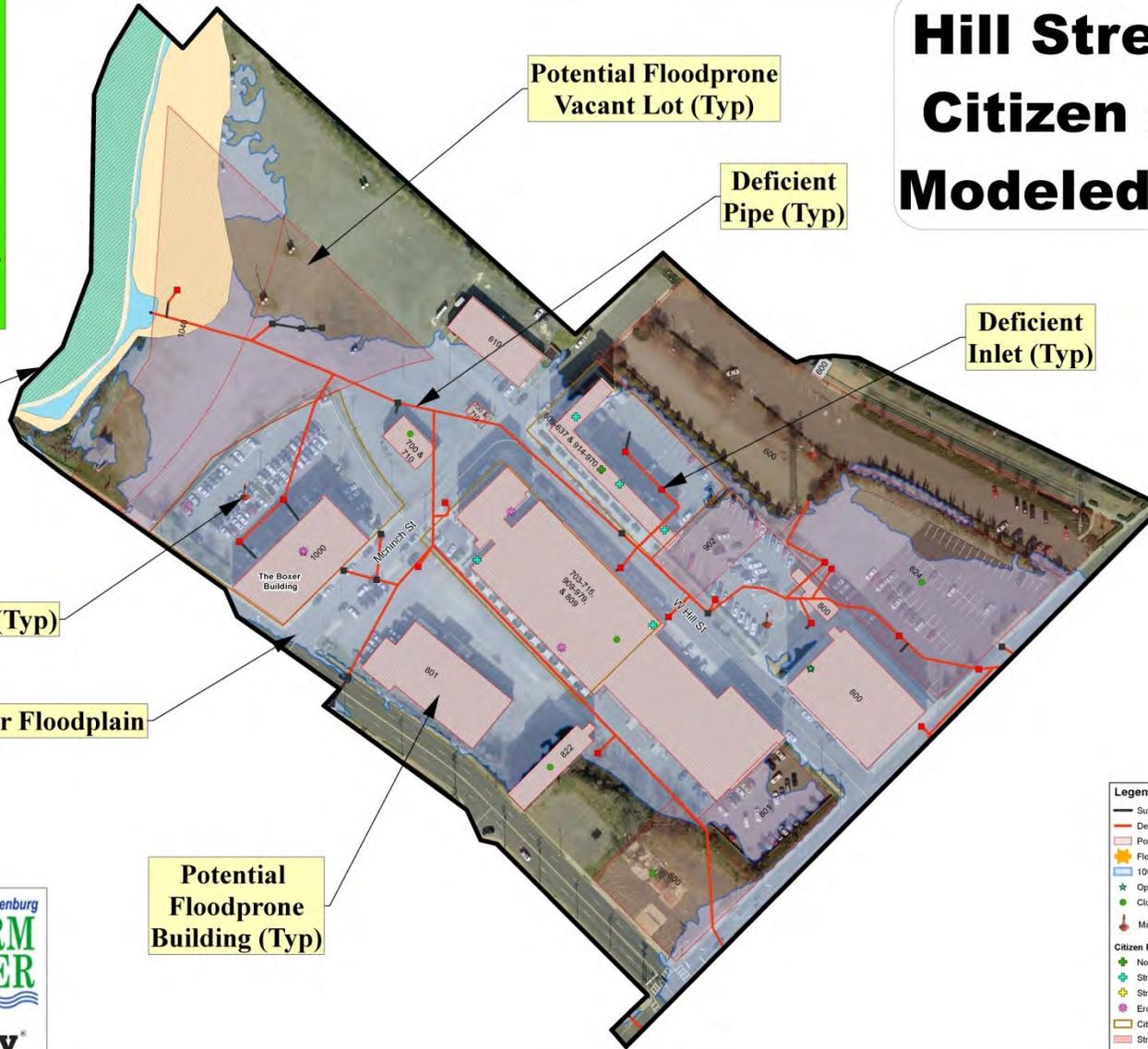
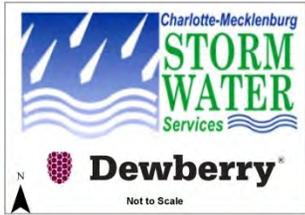
Deficient  
Pipe (Typ)

Deficient  
Inlet (Typ)

M-Team Project (Typ)

100 Year Floodplain

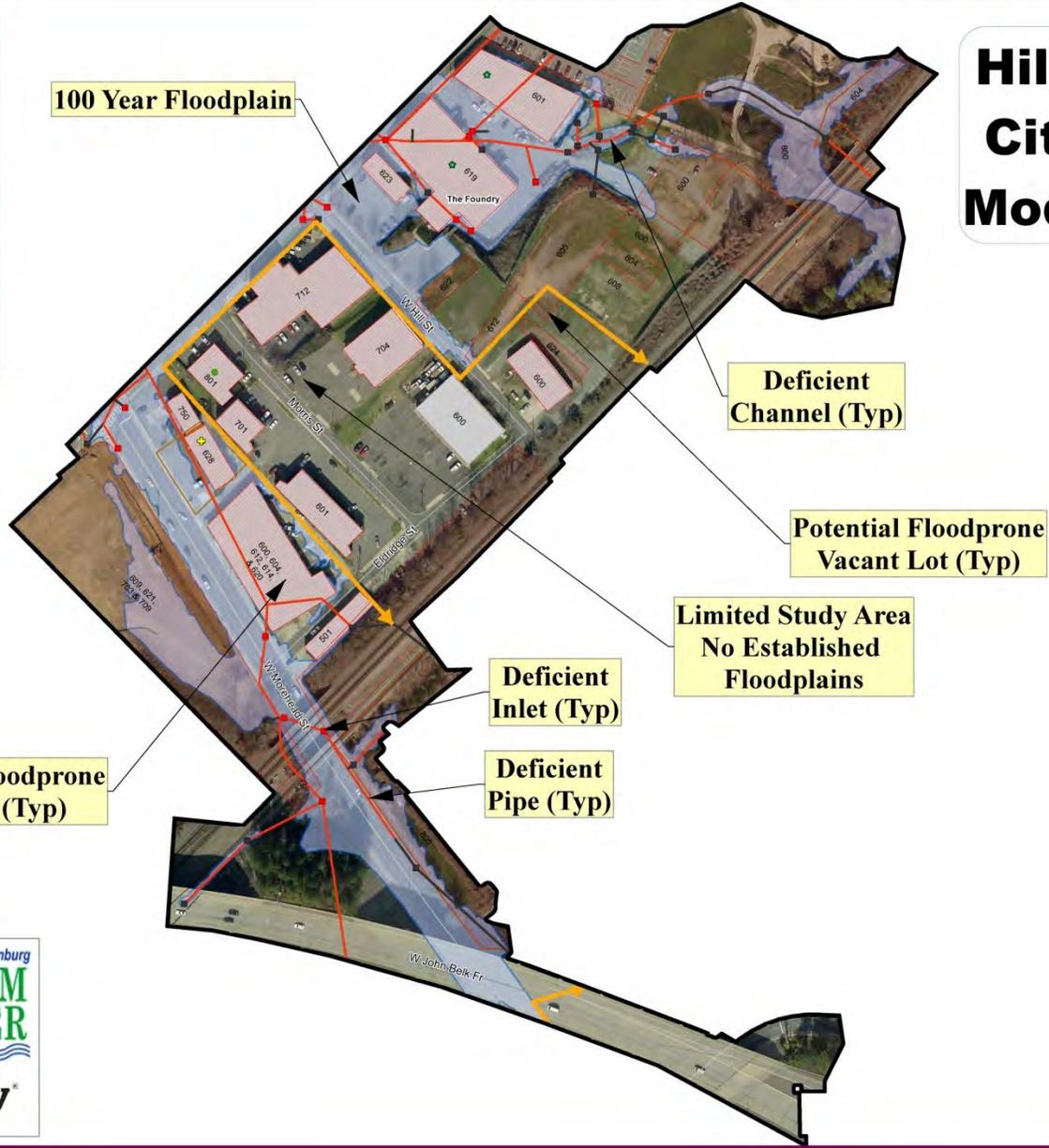
Potential  
Floodprone  
Building (Typ)



Legend	
	Sufficient Storm Water System
	Deficient Storm Water System
	Potential Floodprone Buildings & Parcels
	Floodplain Modeling Limits
	100 Year Future Floodplain
	Open 311 Requests, Priority A
	Closed 311 Requests
	Maintenance Projects
Citizen Reported Structure Flooding & Erosion	
	No Structure Flooding or Erosion
	Structure Flooding More Than Once a Year (w/ or w/ out Erosion)
	Structure Flooding Once a Year (w/ or w/ out Erosion)
	Erosion Only
	Citizen Reported Soil Erosion
	Street Flooding
	Structural Flooding
	Finished Floor Flooding

# B

## Hill Street SDIP Citizen Input & Modeled Results



100 Year Floodplain

Deficient Channel (Typ)

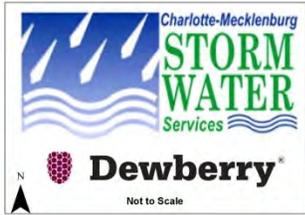
Potential Floodprone Vacant Lot (Typ)

Limited Study Area  
No Established  
Floodplains

Deficient Inlet (Typ)

Deficient Pipe (Typ)

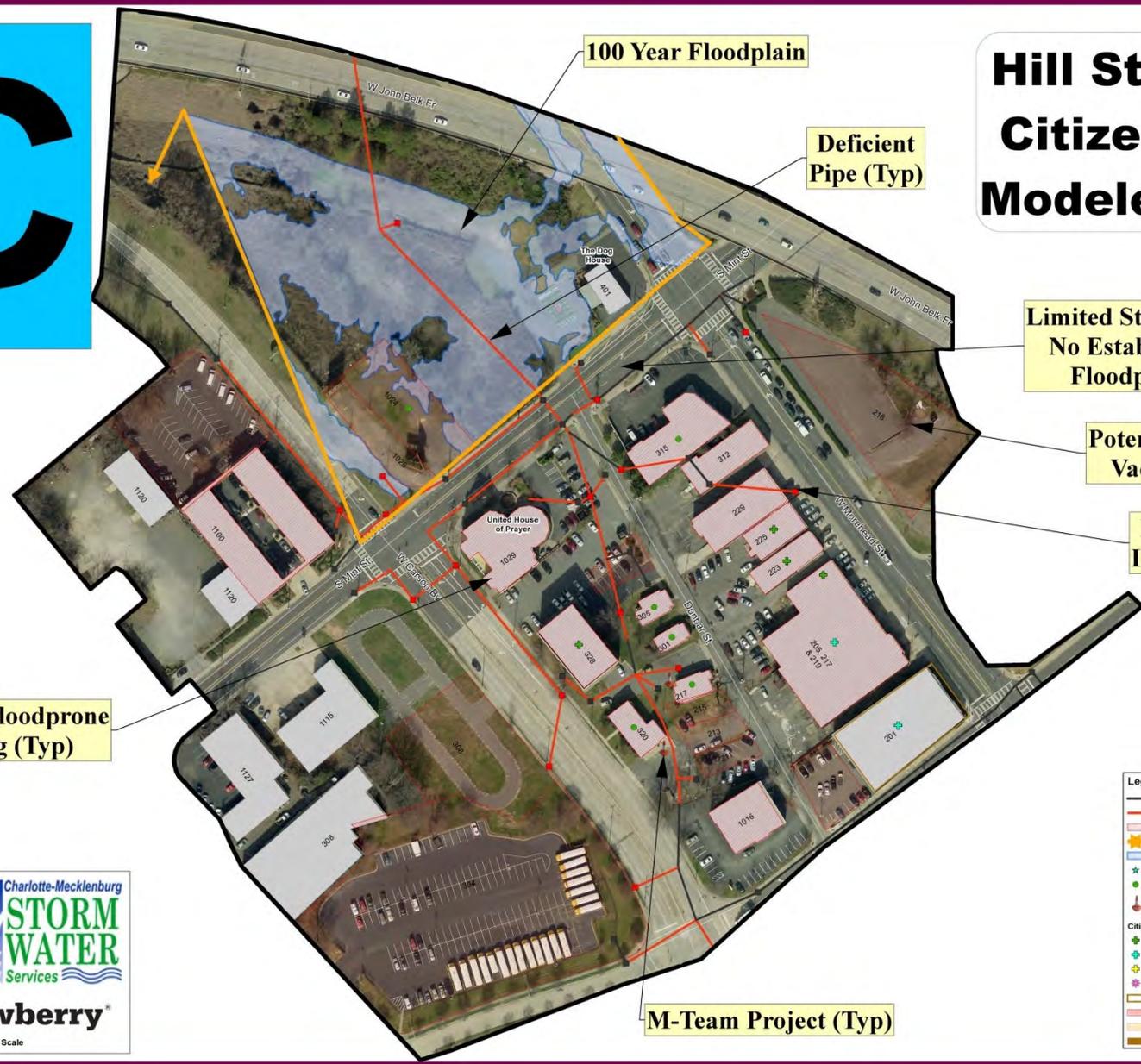
Potential Floodprone Building (Typ)



Legend	
—	Sufficient Storm Water System
—	Deficient Storm Water System
■	Potential Floodprone Buildings & Parcels
★	Floodplain Modeling Limits
■	100 Year Future Floodplain
★	Open 311 Requests, Priority A
●	Closed 311 Requests
🔧	Maintenance Projects
Citizen Reported Structure Flooding & Erosion	
🟢	No Structure Flooding or Erosion
🟡	Structure Flooding More Than Once a Year (w/ or w/ out Erosion)
🟠	Structure Flooding Once a Year (w/ or w/ out Erosion)
🟣	Erosion Only
🟤	Citizen Reported Soil Erosion
🟡	Street Flooding
🟠	Structural Flooding
🟤	Finished Floor Flooding

# C

## Hill Street SDIP Citizen Input & Modeled Results



**Legend**

- Sufficient Storm Water System
- Deficient Storm Water System
- Potential Floodprone Buildings & Parcels
- Floodplain Modeling Limits
- 100 Year Future Floodplain
- Open 311 Requests, Priority A
- Closed 311 Requests
- Maintenance Projects
- Citizen Reported Structure Flooding & Erosion**
- No Structure Flooding or Erosion
- Structure Flooding More Than Once a Year (w/ or w/ out Erosion)
- Structure Flooding Once a Year (w/ or w/ out Erosion)
- Erosion Only
- Citizen Reported Soil Erosion
- Street Flooding
- Structural Flooding
- Finished Floor Flooding

Potential Floodprone Building (Typ)

100 Year Floodplain

Deficient Pipe (Typ)

Limited Study Area  
No Established  
Floodplains

Potential Floodprone  
Vacant Lot (Typ)

Deficient  
Inlet (Typ)

M-Team Project (Typ)

**Charlotte-Mecklenburg  
STORM  
WATER  
Services**

**Dewberry**  
Not to Scale

# D

## Hill Street SDIP Citizen Input & Modeled Results



Deficient  
Pipe (Typ)

Limited Study Area  
No Established  
Floodplains  
(All of Map D)

Potential Floodprone  
Building (Typ)

Deficient  
Inlet (Typ)

**Legend**

- Sufficient Storm Water System
- Deficient Storm Water System
- Potential Floodprone Buildings & Parcels
- Floodplain Modeling Limits
- 100 Year Future Floodplain
- Open 311 Requests, Priority A
- Closed 311 Requests
- Maintenance Projects
- Citizen Reported Structure Flooding & Erosion**
- No Structure Flooding or Erosion
- Structure Flooding More Than Once a Year (w/ or w/ out Erosion)
- Structure Flooding Once a Year (w/ or w/ out Erosion)
- Erosion Only
- Citizen Reported Soil Erosion
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**Charlotte-Mecklenburg  
STORM  
WATER  
Services**

**Dewberry**  
Not to Scale



### Planning- (Estimated 2 years)

- Survey (completed)
- Existing Conditions (completed)
- City Design Standard Analysis ( **In Progress** )
- Alternative Analysis (2013)
- Selected Alternative-Future Public Meeting (TBD in early 2014)

*Design and Construction may be phased due to size and complexity of watershed.*

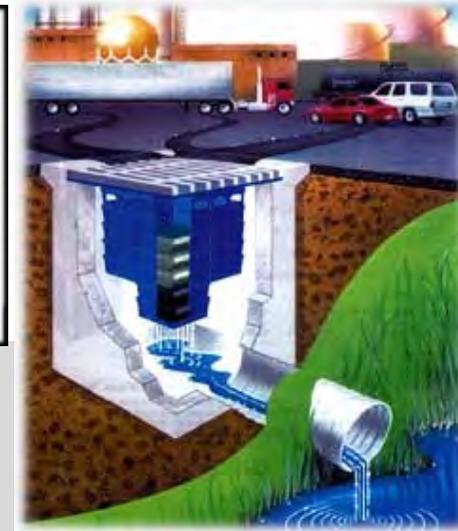
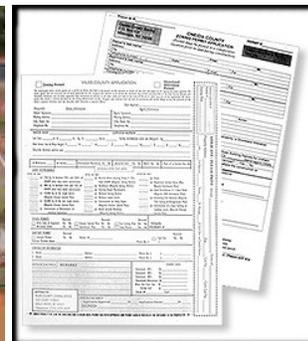
Design- Estimated 1 year duration

Real Estate\Easement Phase & Permitting- Estimated 1 year duration

Bid- Estimated 6 months duration

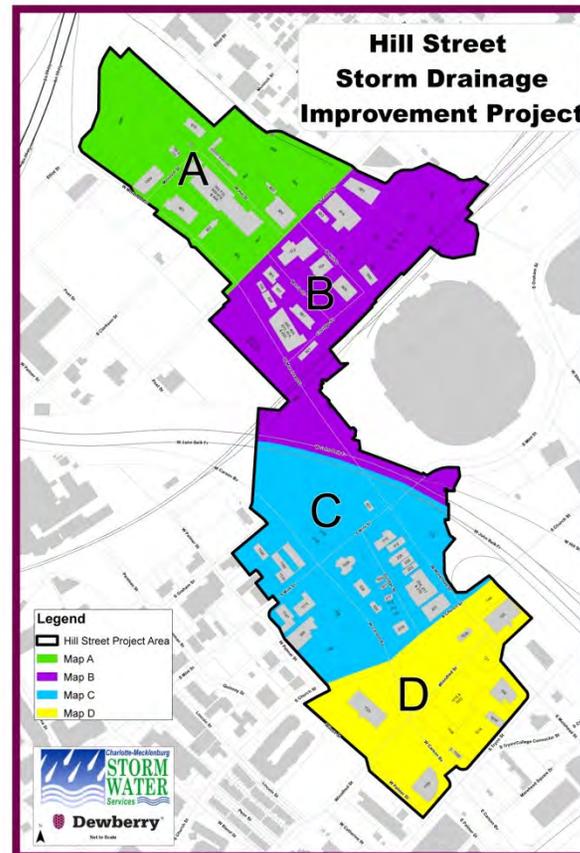
Construction- Estimated 1-2 year duration per phase

## Future Project Milestones



## Conclusion

- Please remember to sign in and fill out a customer service card **if you have not filled one out previously**. Be sure to include if you are the owner or a tenant of the property.
- At the end of the presentation, please find the map where your property is located for details. Also feel free to speak to a representative to **let us know of any additional flooding you have observed**.
- General Discussion
- Thank you for coming to the meeting, and have a nice evening!



For more information please visit the Charlotte Mecklenburg Storm Water Services website at:  
<http://charmeck.org/stormwater/Projects>

