

Armstrong Glen, P.C.

PO Box 7326
Charlotte, NC 28241

9731-L Southern Pine Blvd.
Charlotte, NC 28273

Phone (704) 529-0345
Fax (704) 529-0493

MEETING MINUTES

Subject: Hinsdale-Tinkerbell Storm Drainage Improvement Project - Public Meeting 1
Date: March 28, 2013 6:30 – 8:00 PM
Location: Church of Charlotte
Conducted by: Greg Cole (City Project Manager)
Amy Bice (Watershed Area Manager)
Josh Letourneau (AG Project Manager)
Andy Litten (AG Project Engineer)
Bill Armstrong (AG President)
Minutes by: Josh Letourneau
Attendees: 23 Residents (18 properties)

I. Welcome and Introductions

- Greg Cole, City Storm Water Services (CSWS) Project Manager, opened the meeting by thanking the residents for their attendance, and introducing the project.
- Greg Cole introduced himself and the team members for the project: CSWS and Armstrong Glen (AG) – see names above.
- Greg Cole noted that there would be a formal presentation (PowerPoint), general Question and Answer period, and a specific Question and Answer period during break-out groups after the presentation.
- Greg Cole explained that the City's design consultant, Armstrong Glen, has just completed an analysis of the watershed and existing drainage systems.

II. Meeting Purpose

- Greg Cole explained the purpose of the meeting was to present the findings of the existing conditions analysis, request input from property owners on the existing conditions analysis results, and to obtain any additional information from the property owners regarding stormwater concerns.
- Greg Cole informed the residents that there will be more public meetings in the future as improvement alternatives are developed.

III. Charlotte Mecklenburg Storm Water Services (CMSWS)

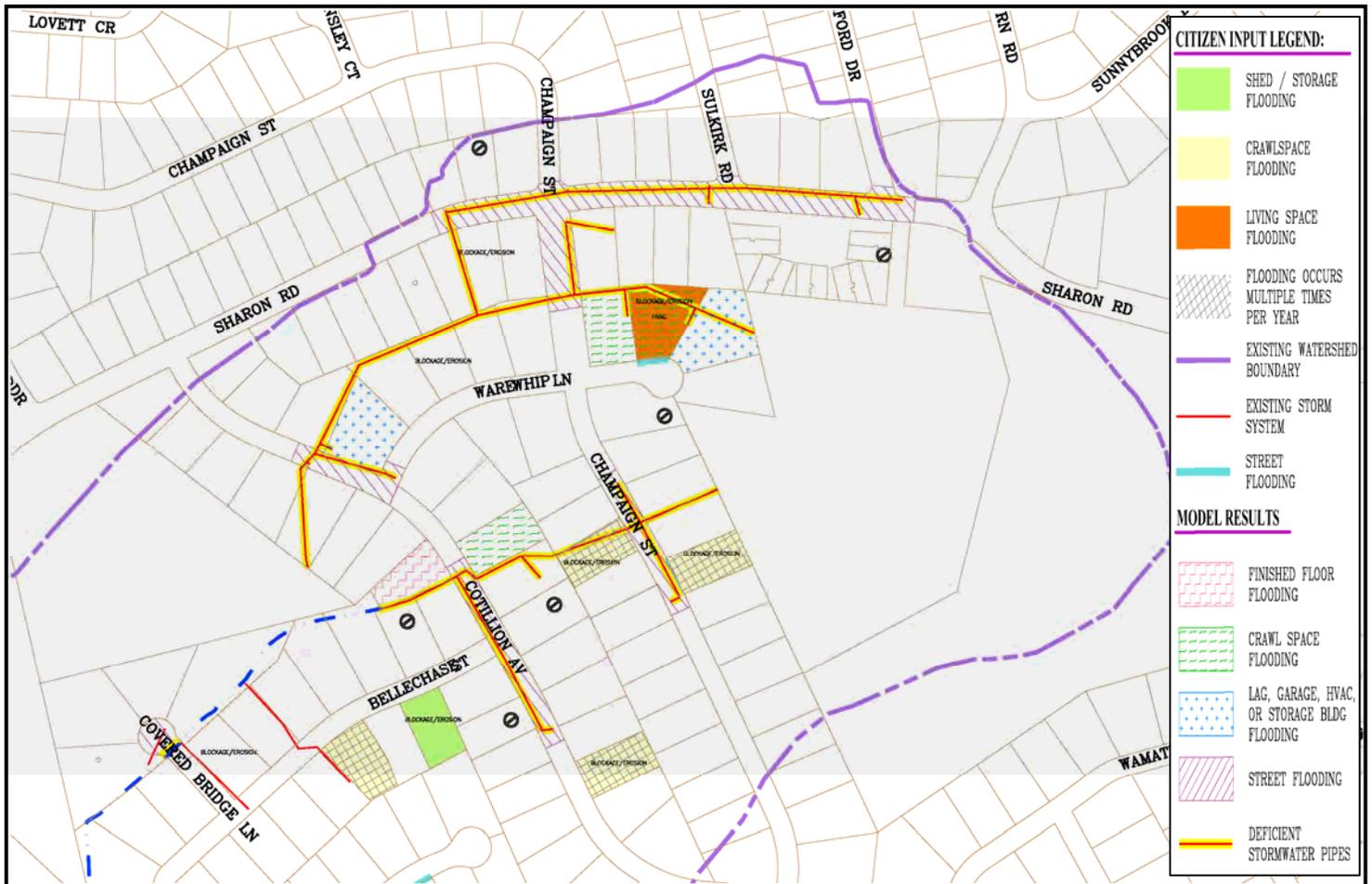
- Greg Cole then talked about the project history and why the Hinsdale-Tinkerbell project was created.
- Greg Cole explained that there were 123 total requests reported to 311, which included issues such as inadequate and deteriorating infrastructure, road flooding, structural flooding, old culverts, sink holes, and erosion/blockages in streams.
- Greg Cole explained that questionnaires were mailed out to the entire neighborhood, and 67 questionnaires were returned to the City, indicating similar drainage concerns as the 311 requests.
- Greg Cole noted that the 311 requests and citizen questionnaires input, received from the residents of the Hinsdale-Tinkerbell SDIP area, had contributed to a higher ranking for the project.
- Greg Cole explained that projects like this deal with larger watershed-wide issues that cannot be managed by smaller spot repairs and require considering impacts to downstream areas.

IV. Existing Conditions Analysis Results

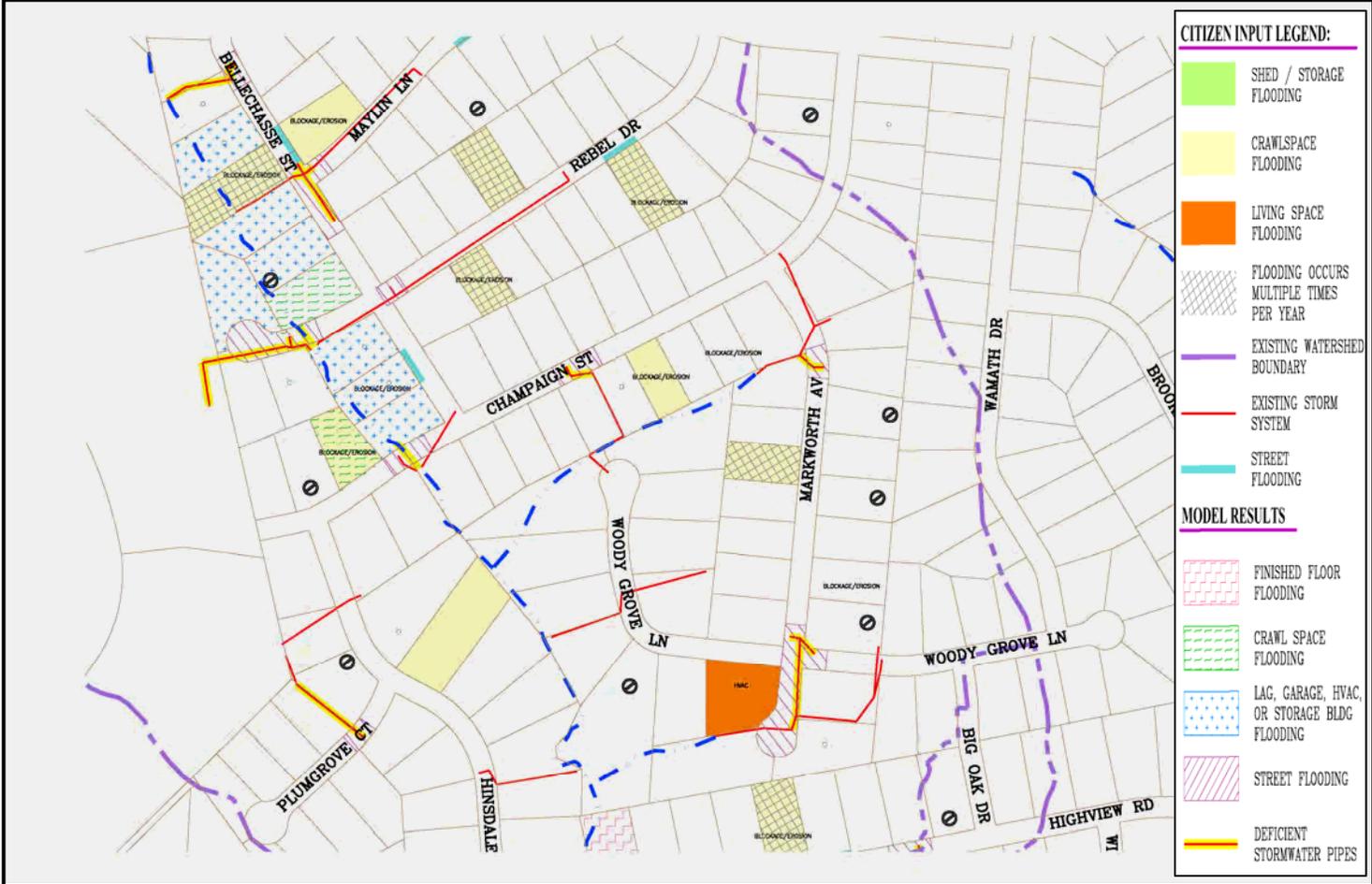
Note: A large version of the Existing Conditions Results Map was provided on easels and on the PowerPoint presentation, which summarized reported citizen complaints and highlighted storm drainage that was deficient. This map can be downloaded from the project website.

- Josh Letourneau from Armstrong Glen, briefly presented the work that had been performed to assess the drainage systems, and summarized the findings of the study by highlighting problems found in the project area.
- Josh Letourneau first explained how the Existing Conditions Results Map works, with highlighted red lines indicating deficient pipes, and various hatchings/colors depicting modeled drainage issues and citizen complaints.

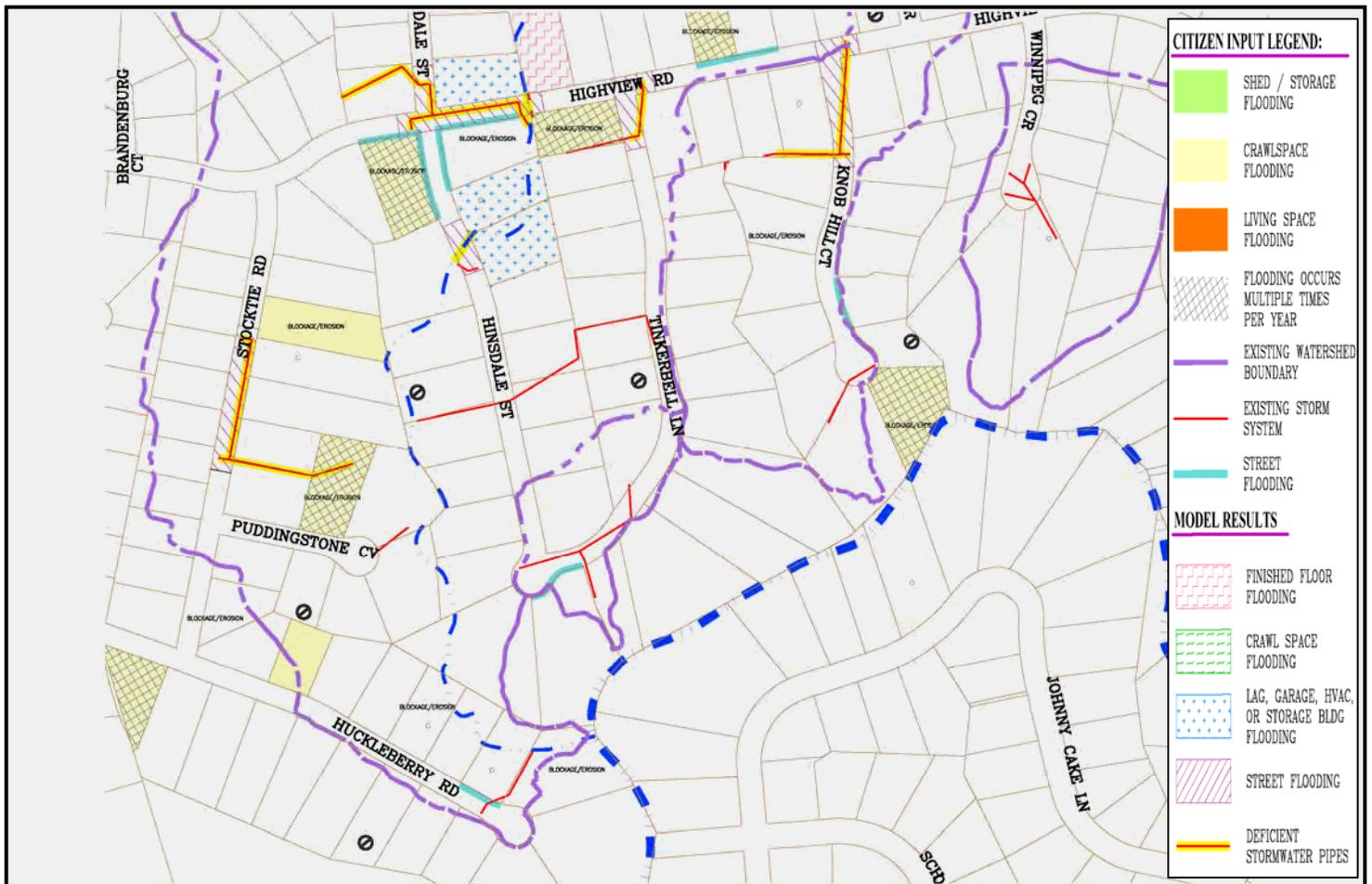
- Josh Letourneau started the existing conditions presentation at the upstream portion of the watershed, where modeled results indicated areas where existing storm drainage did not meet City design standards (CDS). Josh Letourneau noted that there were numerous complaints of structural flooding and road flooding in this area, which backs up the modeled results. The upper portion of the watershed includes:
 - the system along Sharon Road,
 - the system between Sharon Road and Warewhip Lane,
 - the system between Champaign Street and Cotillion Avenue, and
 - the culvert (stream crossing) under Covered Bridge Lane, the first of the five major culverts which do not meet City design standard.



- Josh Letourneau goes on to summarize the middle section of the watershed, where modeled results indicated areas where existing storm drainage did not meet City design standards (CDS). Numerous houses are predicted to experience structural flooding due to ponding upstream of the Rebel Drive and Champaign Street culverts. Josh Letourneau noted that there were numerous complaints of structural flooding and road flooding in this area, which backs up the modeled results. The middle section of the watershed includes:
 - the system at the intersection of Bellechasse Street and Maylin Lane,
 - the system at the intersection of Markworth Avenue and Woody Grove Lane,
 - the system at Plumgrove Court, and
 - the culverts under Rebel Drive and Champaign Street, both of which do not meet City design standards.



- Josh Letourneau then summarizes the downstream section of the watershed, where modeled results indicated areas where existing storm drainage did not meet City design standards (CDS). Numerous houses are predicted to experience structural flooding due to ponding upstream of the Highview road and Hinsdale Street culverts. Josh Letourneau noted that there were numerous complaints of structural flooding and road flooding in this area, which backs up the modeled results. The downstream section of the watershed includes:
 - the system at the intersection of Highview Road and Knob Hill Court,
 - the system along Stocktie Road,
 - the system at the intersection of Highview Road and Tinkerbell Lane, and
 - the culverts under Highview Road and Hinsdale Street , both of which do not meet City design standards.



V. Next Step of Project:

- Greg Cole then wrapped up the meeting by briefly describing the phases of the project and typical durations as follows:
 - Planning (typically 12 to 27 months)

- Existing Conditions Analysis – finding the problems (*started in Fall of 2012*)
- Alternative Analysis – developing alternative improvements
- Design (typically 21 to 34 months)
 - Designing the improvements
 - Create design plans and other documents used to bid the project and guide construction
- Permitting (typically 9 months, but usually overlaps the design phase)
- Easement Acquisition (typically 12+ months and overlaps with design phase)
- Bid and Award (typically 5 to 6 months)
- Construction (from 1 to 2+ years)
- Greg Cole then discussed the immediate path forward which includes completing the existing conditions analysis, evaluating alternative solutions to the drainage issues, and holding a 2nd public meeting to present the recommended alternative.
- The formal presentation was concluded after a general Question and Answer session. Specific questions were also answered by team members during the break-out session afterward.

VI. General Questions/Discussions During the Presentation:

- Resident points out that his property floods and needs to be shown as first floor flooding on the exhibit. Resident stated that the neighborhood has requested the channel be maintained by the City. Greg Cole/Amy Bice explained that the City's policy is that channel maintenance is performed by the property owners unless a major repair (impacting public safety) needs to be completed.
- Resident asked how many questionnaires returned indicated actual problems. Josh Letourneau showed on the exhibit the symbol that represents a returned questionnaire with no problems reported.
- Resident asked about increases in flow on McMullen Creek due to upstream development (along Fairview). He stated that he has seen a significant increase in flow over the past few years. Josh Letourneau stated that rising FEMA creeks over the past decade have been an issue throughout the County. Greg Cole explained that drainage basins over 1 square mile are the responsibility of Mecklenburg County Storm Water and that McMullen Creek was not something being looked at as part of this project. After the meeting, Greg Cole provided the property owner with the contact information of the person at the County who is best suited to answer his questions.
- Resident asked about proposed pipe sizes and the amount of impacts due to construction. Resident does not want trees removed on her property because she doesn't want to lose the screen of trees and fears reduced property values. Greg Cole/Josh Letourneau explained that the City have not reached the proposed improvements part of the project yet and will have more answers at the next public meeting where the selected alternative will be presented.

- Resident asked how channel overgrowth is modeled. Andy Litten explained the concept behind the roughness values used to model channels and culverts based on the conditions of the channel, and that the most conservative values are typically used.
- Resident asked if this project will affect stormwater fees. Greg Cole explained that this project will not affect the fee and that the City is mindful of spending the stormwater fee. Greg Cole explained that the Hinsdale-Tinkerbelle project is an example of those fees at work.
- Resident asked if the City would be riprapping the channel as part of the project. Greg Cole said not if it can be avoided and explained how the City now tries to use natural design techniques to improve channels. He explained that policies and designs have changed and hard improvements are no longer preferred except in places of high velocities such as downstream of culverts or where natural channel design techniques will not work.

VII. Specific Property Owner Questions/Discussions Post Presentation:

- **Hinsdale Street:** resident believes the undersized storm drain downstream of the property is causing water to backup, causing first floor flooding. Josh Letourneau agreed that the downstream system is undersized, but that proposed modeling has not been performed to determine how to remedy the issue. The property owner also reported that the entire channel between the Champaign Street and Highview Road culverts is overgrown and filled with debris, and needs to be cleaned out.
- **Bellechasse Street:** resident reported crawl space flooding 3-4 times in the past 6 years, and that the intersection of Bellechasse Street and Maylin Lane floods frequently. Josh Letourneau confirmed that the storm system at the intersection is undersized and road flooding is predicted based on the models. Josh Letourneau did not think the crawl space flooding was a result of street water, but poor drainage in the owner's front yard.
- **Hinsdale Street:** resident mentioned that crawl space floods during heavy rain events, but admits that the water does not come from the creek. Josh Letourneau mentioned the models do not show any spread issues along Hinsdale Street at this location, and that the water may be from poor yard drainage.
- **Hinsdale Street:** resident reported severe erosion along the open channel in backyard, especially around the channel bend. Josh Letourneau agreed that there is significant erosion along the entire reach of channel, but that channel improvements will only be part of the project if the affected residents donate easements.
- **Hinsdale Street:** resident mentioned that the resident's house has never flooded in the 6 years living there, and wondered why the models show structural flooding at the property. Josh Letourneau agreed that flooding is not predicted for existing conditions, but is predicted with future flows. Josh Letourneau explained that if the upstream culvert (Highview Road) is upsized, additional flow will be released, which will flood her property if the Hinsdale culvert is not upsized. The property owner was very adamant about not impacting the trees along the property. Josh Letourneau explained that all efforts will be

made to protect trees, but there will be times certain trees in the way of the proposed work will be impacted.

- **Tinkerbelle Lane:** property owner had concerns about trees falling in McMullen Creek and a sudden flow increase in the channel. The property owners also reported of soap in their drinking water. Amy Bice told them the City will have someone at the County contact them to discuss the reason for the sudden increase in flow along the channel. Ms. Bice also told the resident that the City will have someone from CMU (Charlotte-Mecklenburg Utilities) contact them to discuss why soap is in the drinking water.