

File No. 170116

Committee Item No. 3

Board Item No. _____

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Comm: Public Safety & Neighborhood Services

Date: Nov 8, 2017

Board of Supervisors Meeting:

Date: _____

Cmte Board

- Motion
- Resolution
- Ordinance
- Legislative Digest
- Budget and Legislative Analyst Report
- Youth Commission Report
- Introduction Form
- Department/Agency Cover Letter and/or Report
- MOU
- Grant Information Form
- Grant Budget
- Subcontract Budget
- Contract/Agreement
- Form 126 – Ethics Commission
- Award Letter
- Application
- Public Correspondence

OTHER (Click the text below for a direct link to the document)

- Committee Presentation - April 12, 2017
- Referral FYI - February 1, 2017
- _____
- _____
- _____

Prepared by: John Carroll

Date: November 2, 2017

Prepared by: _____

Date: _____



San Francisco
**Water
Power
Sewer**

Services of the San Francisco Public Utilities Commission

Flooding Hearing: Long and Short Term Strategies

**Presentation to
San Francisco Board of Supervisors
Public Safety and Neighborhood Services Subcommittee**

April 12, 2017

Stefani Harrison, Project Manager

170116



Agenda

1. Background
2. Long Term: Neighborhood Construction
3. Short Term: Programs
4. Next Steps



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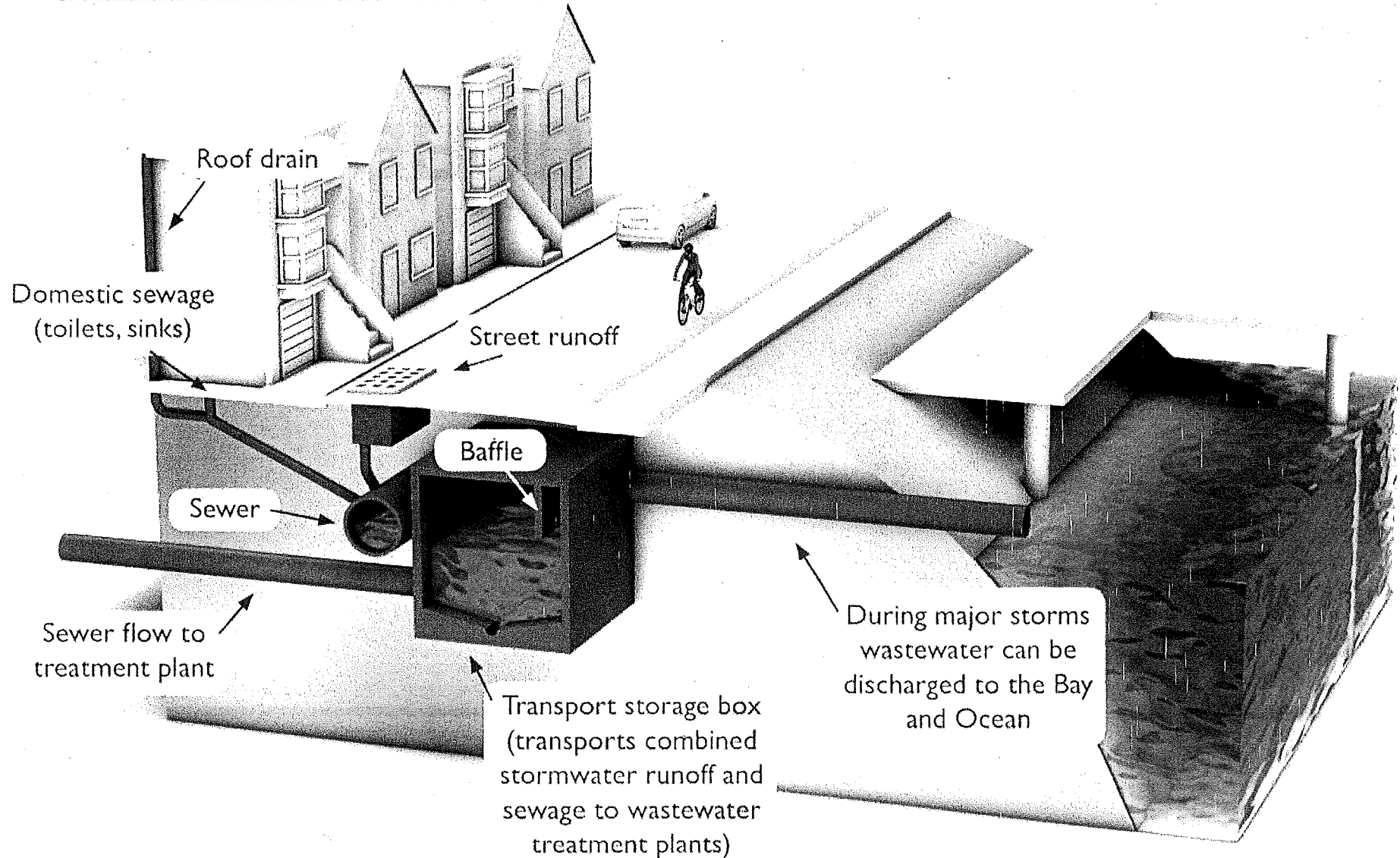
Flooding Hearing

BACKGROUND



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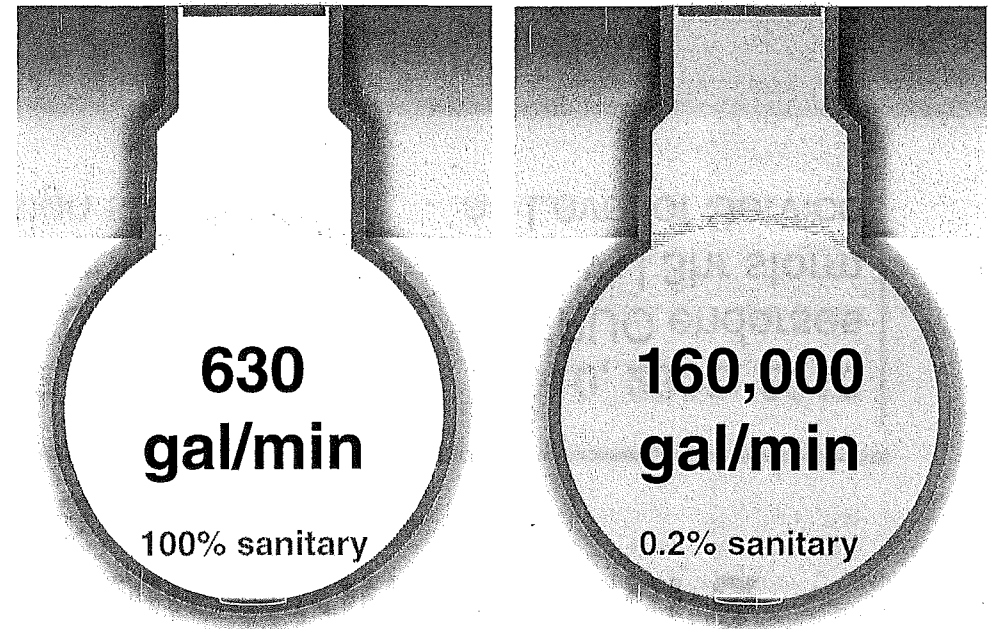
San Francisco's Combined Sewer System



Flooding Terminology

- **Stormwater:**
Rainwater that runs overland.
- **Sanitary Sewage:**
Wastewater from homes and businesses; “dry weather flow”.
- **Combined Flow:**
Stormwater + sanitary sewage mixed in the same pipes.
Pipes are sized primarily to manage stormwater.

Design storm flows in
Folsom neighborhood





History of Our Collection System & Level of Service

1840s
Construction begins

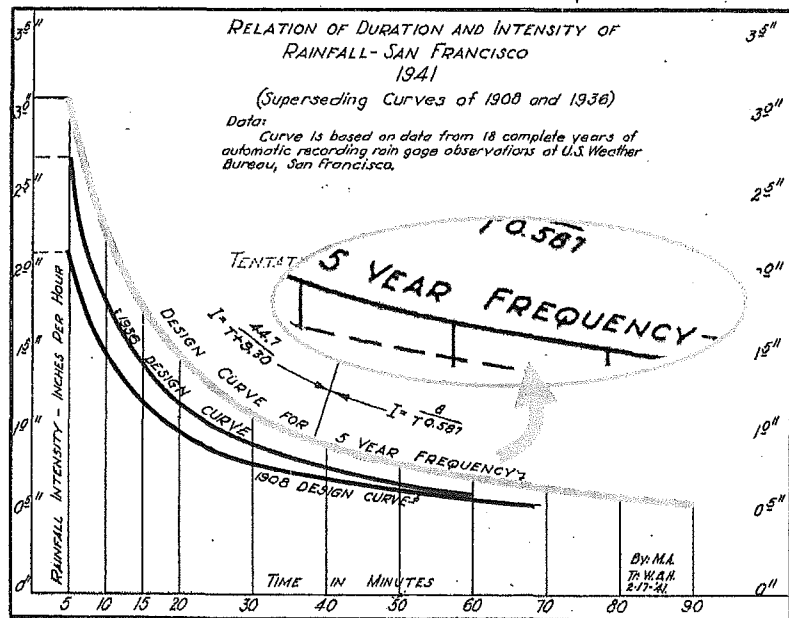
1941
5-yr storm defined

1952
New developments must contain 5-yr design storm

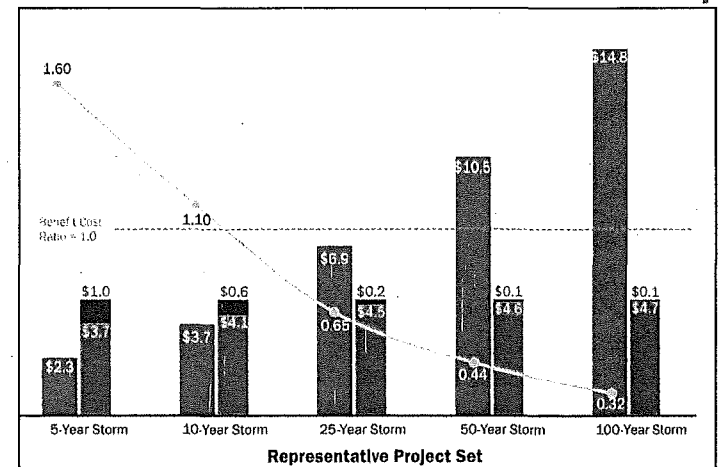
2010, 2012, 2016
SFPUC endorses 5-yr | 3hr storm as Level of Service

PIPE SIZING GUIDELINES EVOLVED

5-YR STORM PIPE SIZING REQUIREMENT



2017
Flood Resilience Study affirms LOS





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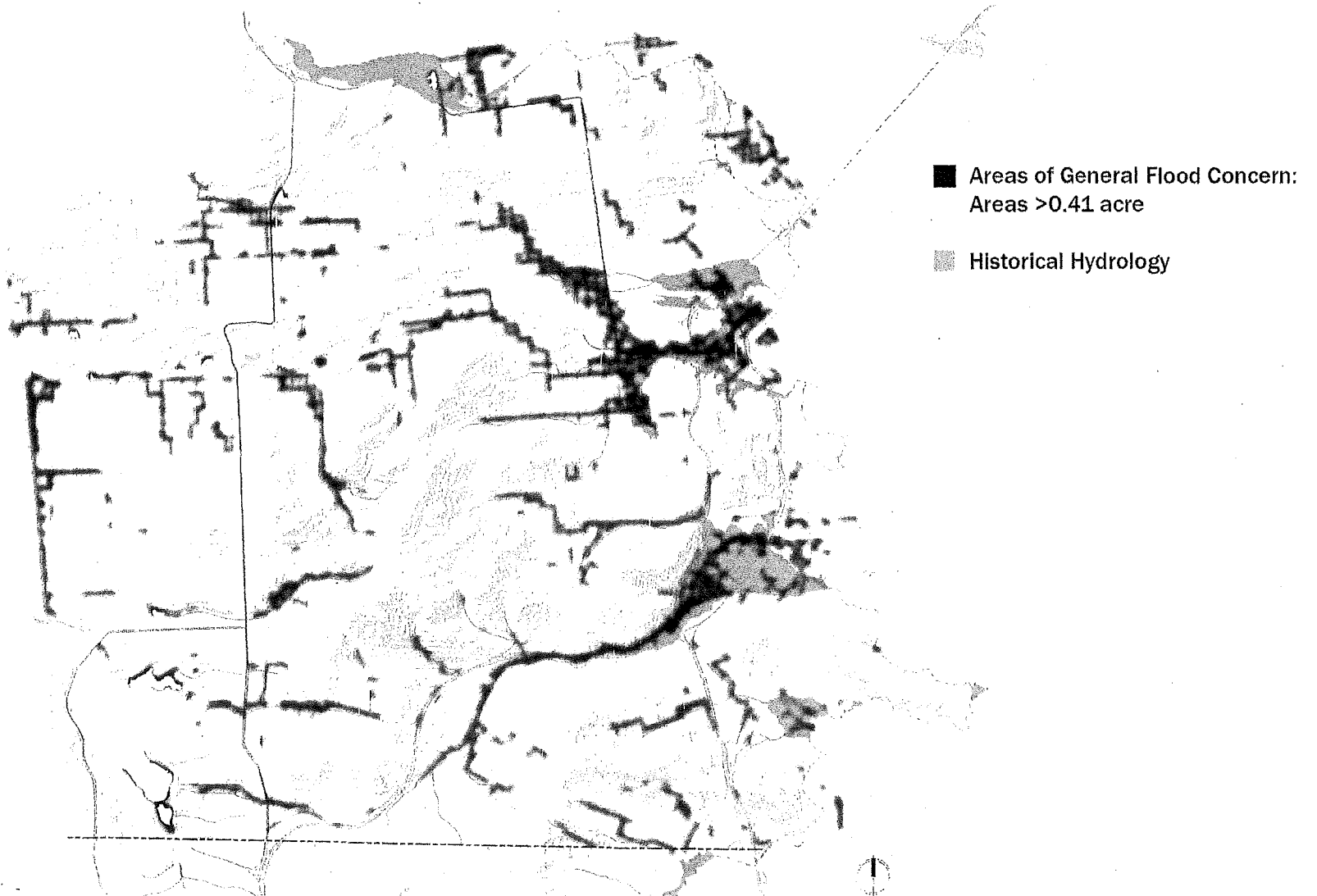
Areas with Surface Inundation, 5-year Storm





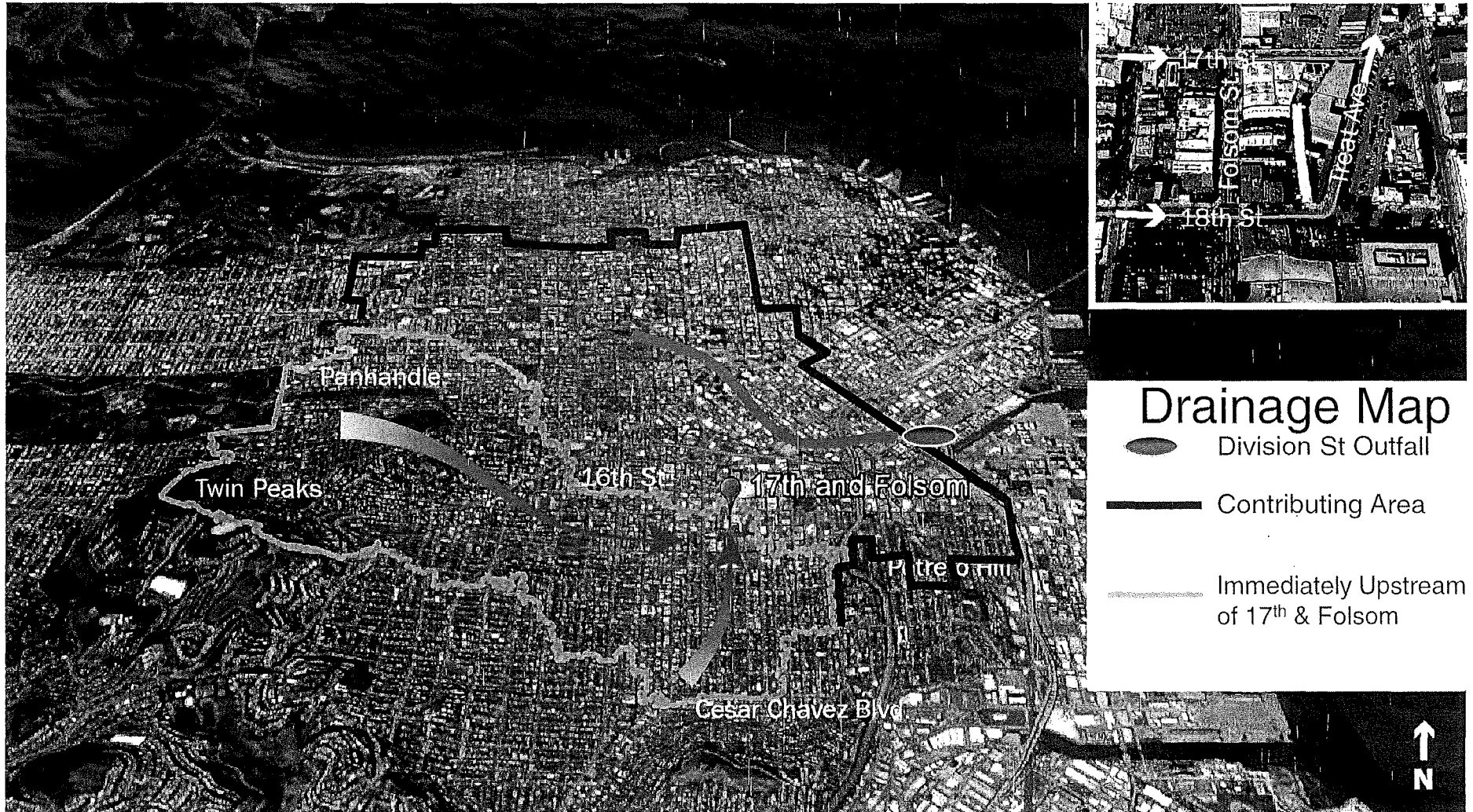
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Areas with Surface Inundation, 100-year Storm



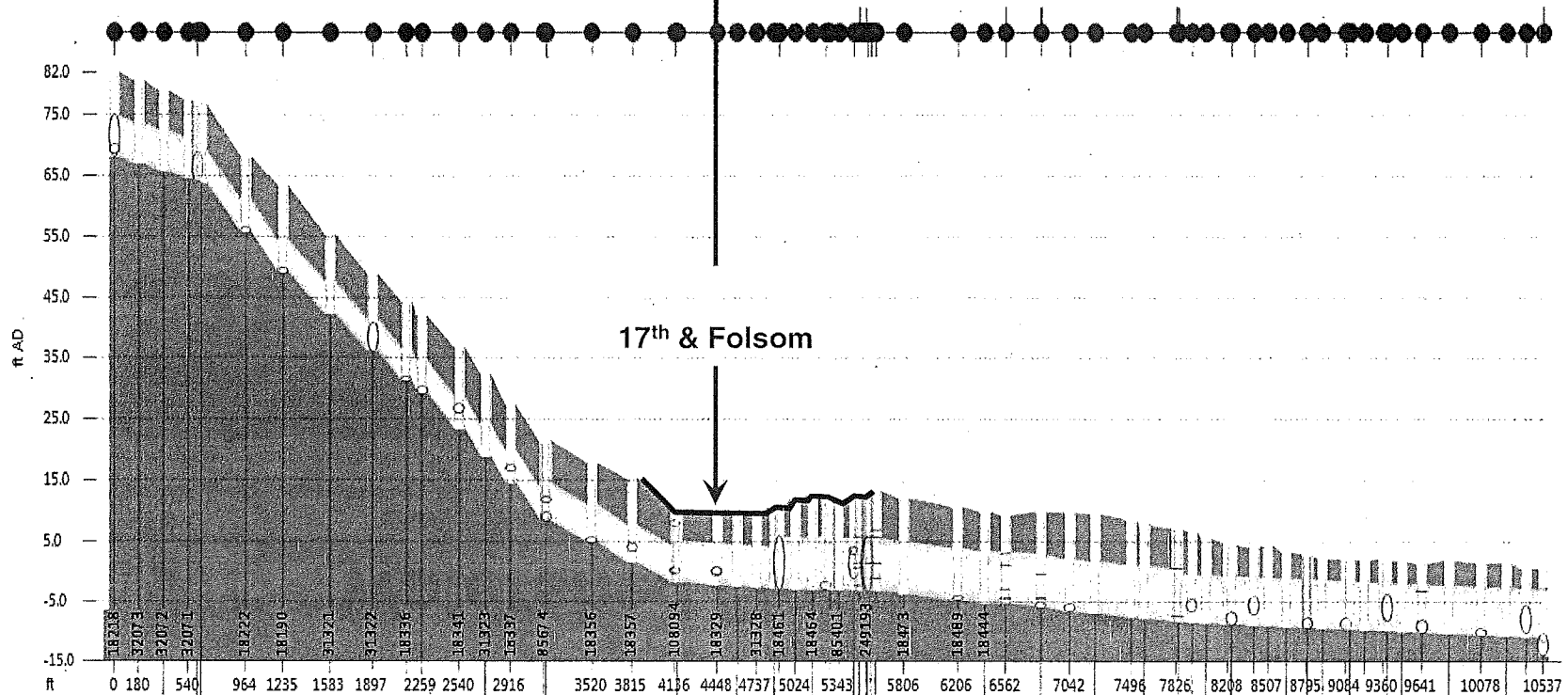
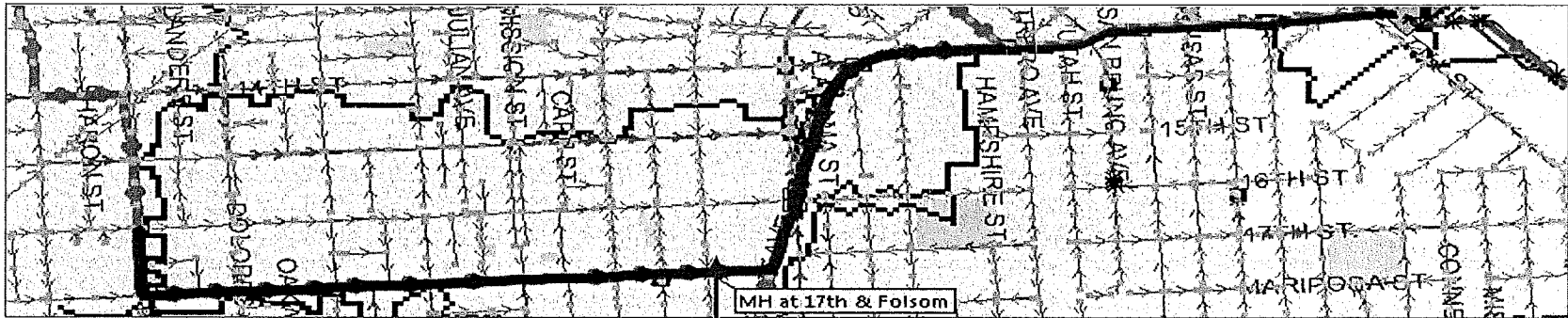


Watershed Flooding – Folsom Example

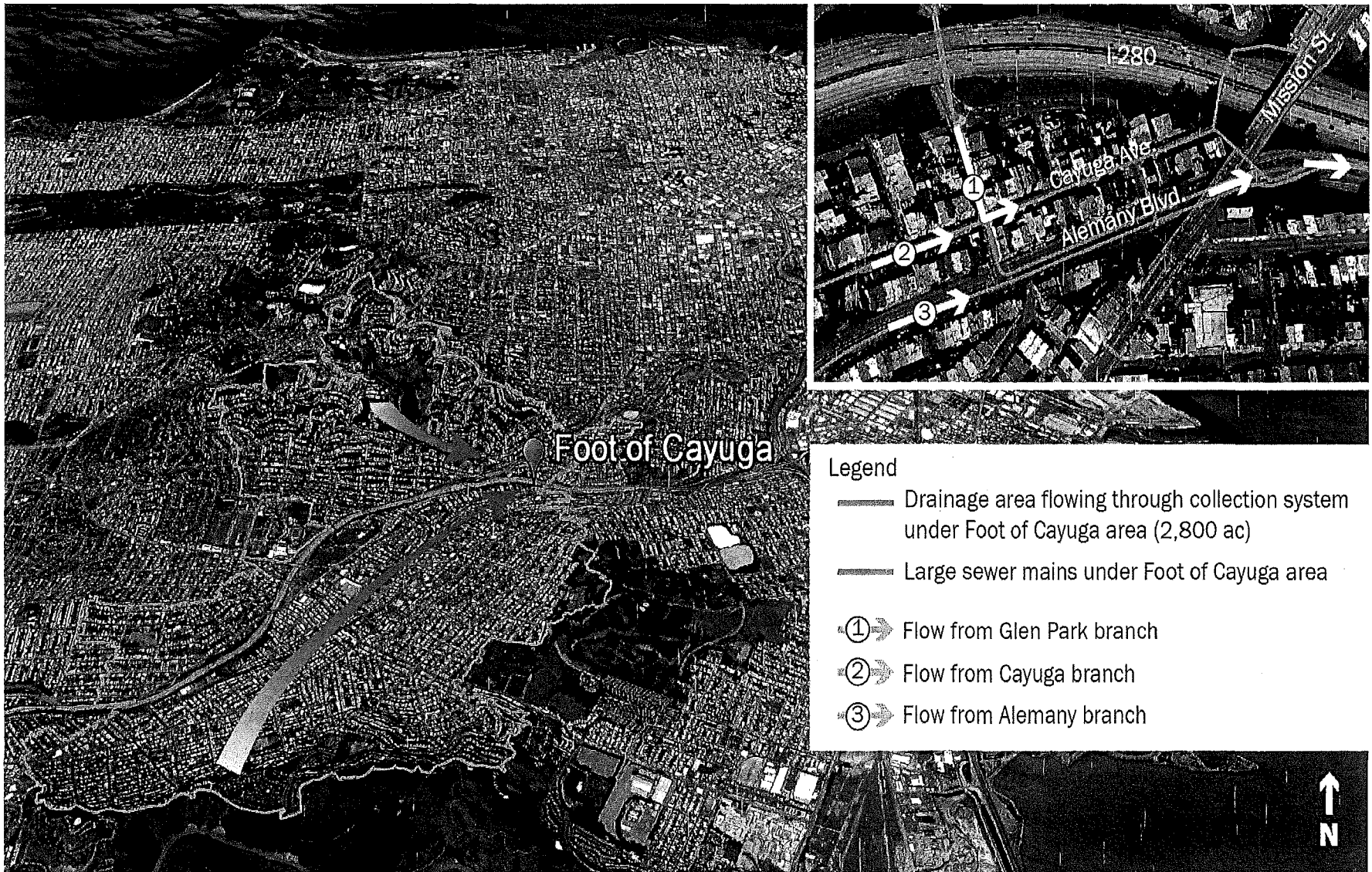




Watershed Flooding – Folsom Example, Sewer Profile

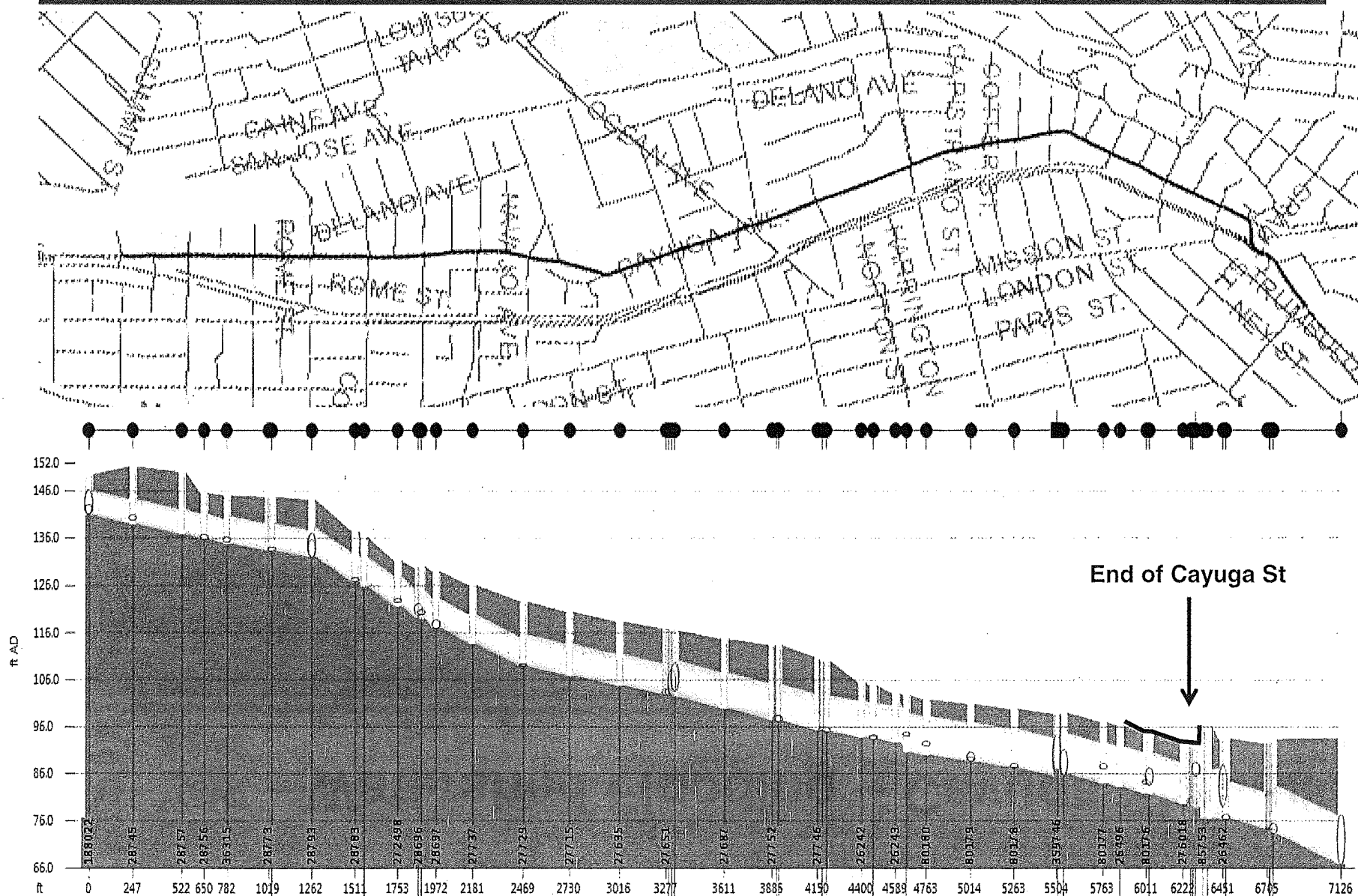


Watershed Flooding – Cayuga Example



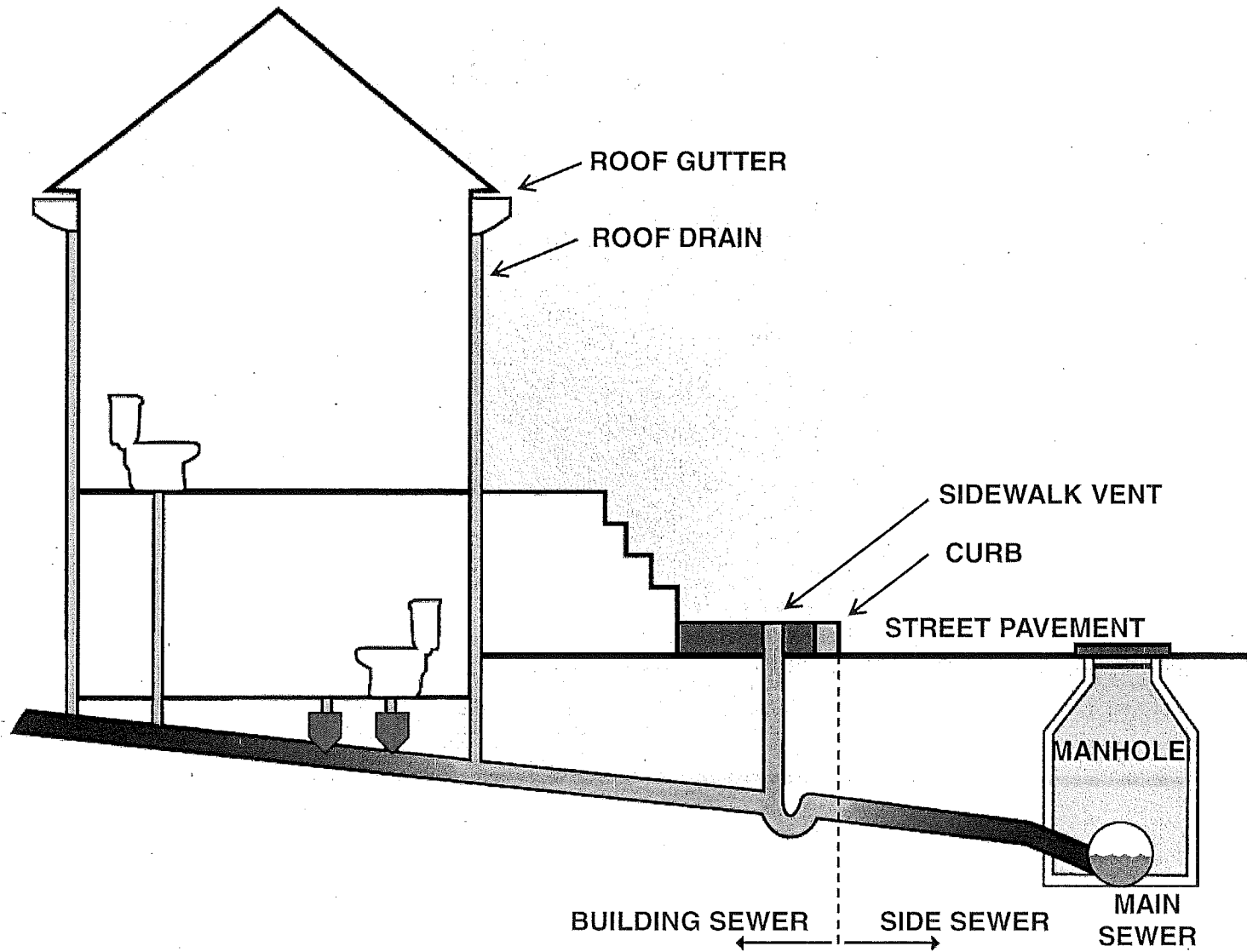


Watershed Flooding – Cayuga Example Sewer Profile





Basement Flooding



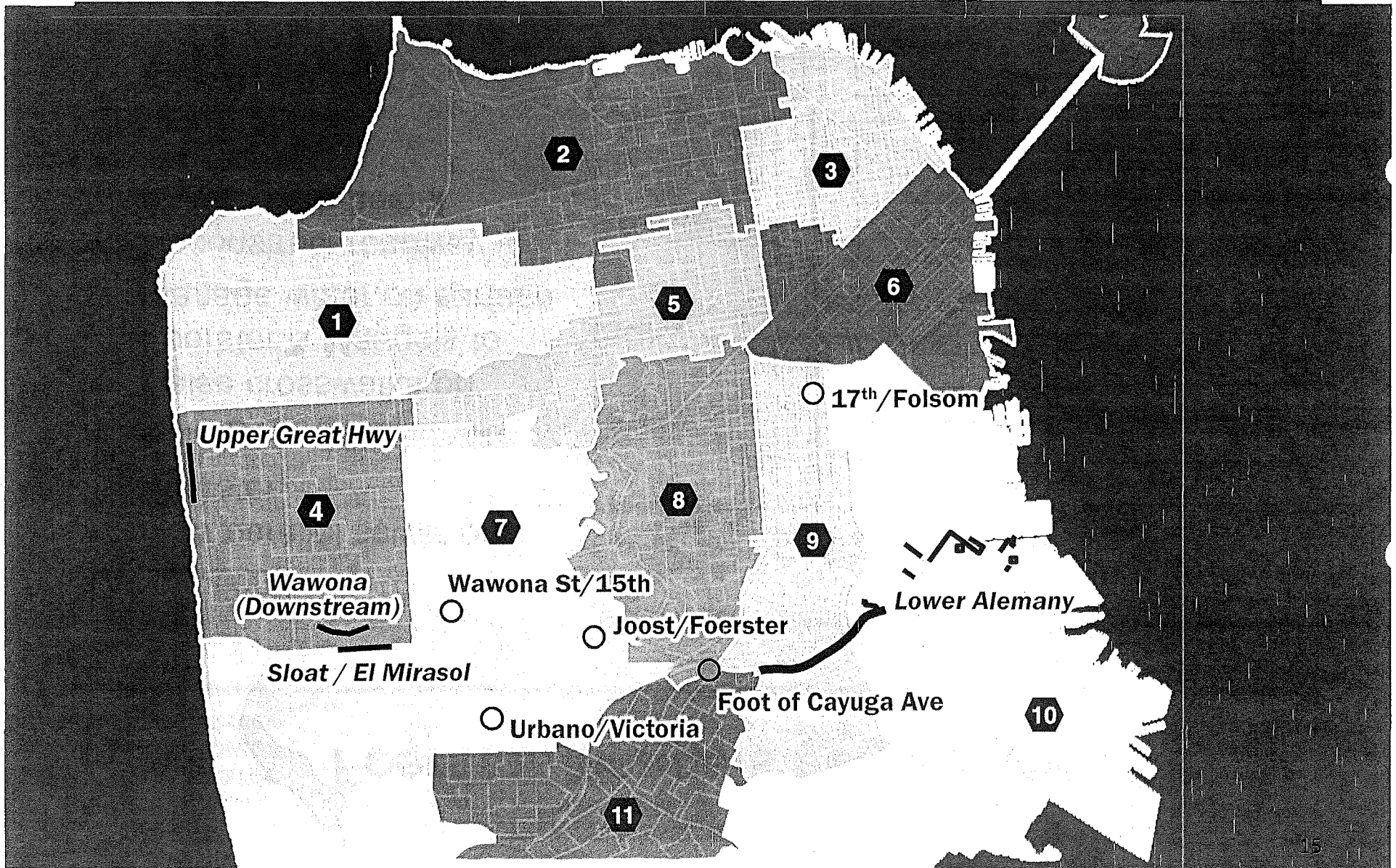
Flooding Hearing

**LONG TERM:
NEIGHBORHOOD
CONSTRUCTION**



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Early Flood Resilience Capital Projects





Foerster/Mangels neighborhood

Description:

- New parallel sewer on Foerster
- Enlarge nearby sewers
- Raise crosswalks on Foerster & Mangels to manage water on surface
- Reconstruct roadway to restore curb height

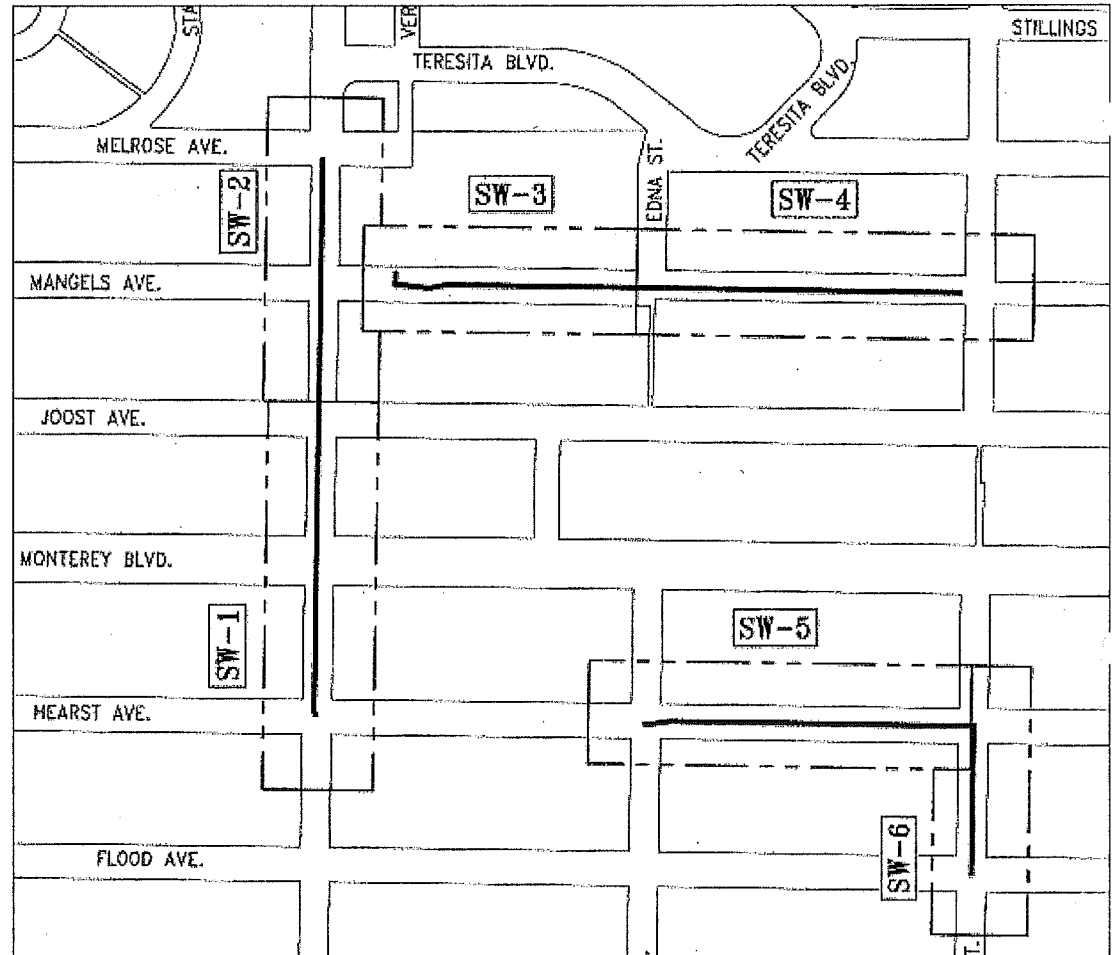
Project Status:

- Awarded 3/14

Project Cost / Completion

Date:

~ \$4-5 M / 2017





Urbano neighborhood

Description:

- New inlets to route water into existing pipes

Key Considerations:

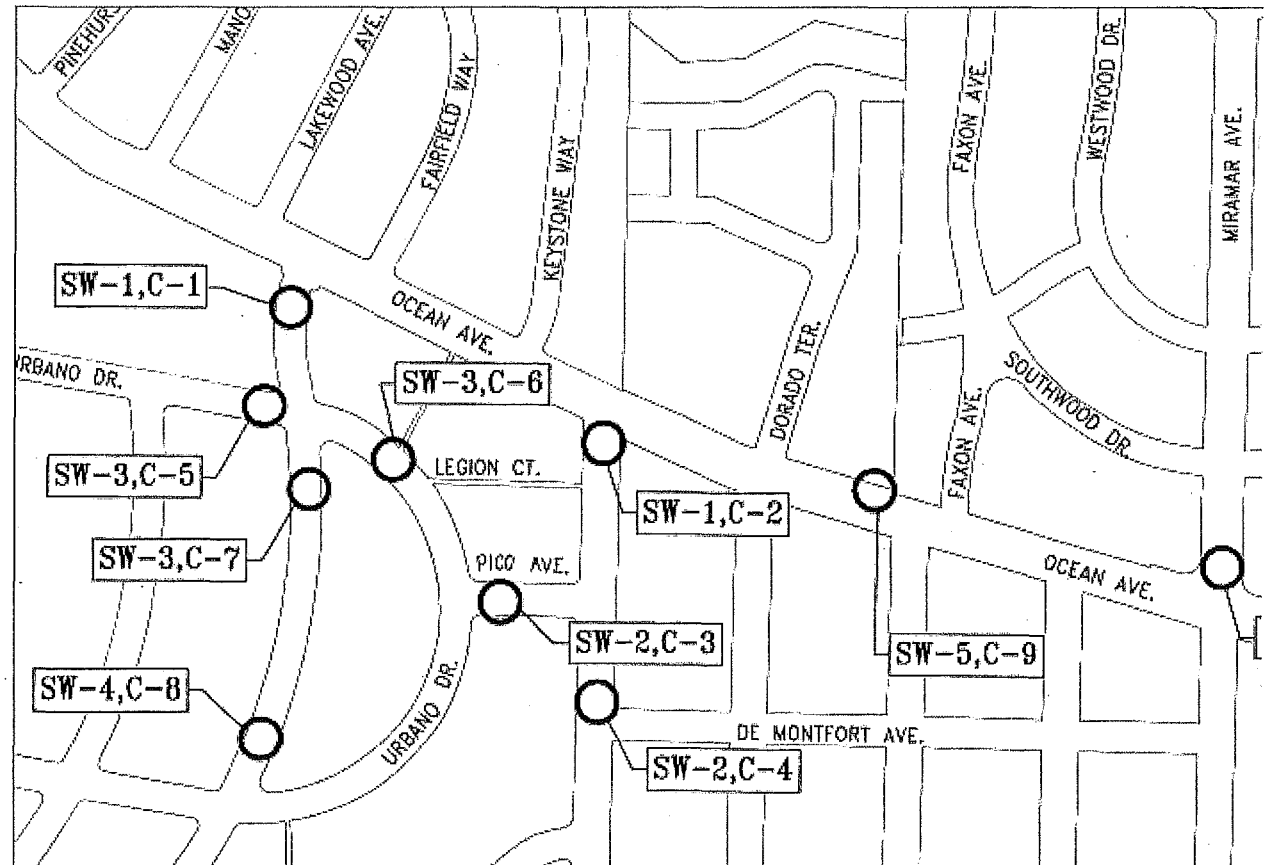
- Coordination with paving and sewer replacement projects

Project Status:

- NTP issued

Project Cost / Completion Date:

~ \$1.5 M / 2017





Wawona/15th neighborhood

Description:

- Install new inlets & pipes to collect water from surface
- Convert Arden Wood Basin to contain water in large storms

Key Considerations:

- Arden Wood property coordination
- Geotechnical considerations
- Environmental mitigations

Project Status

- Initiated Conceptual Engineering

Project Cost / Completion Date:

~ \$23 M / 2020





Inner Mission/Folsom neighborhood

Description:

- Move flows from Inner Mission to Mission Creek outfall

Key Considerations:

- Utilities, cultural resources, and other underground issues
- Real estate in dense urban area
- Traffic disruption

Project Status

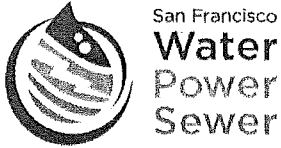
Two alternatives being evaluated in planning phase:

- 1.5 mile expansion of existing pipes
- 12-foot diameter tunnel

Project Cost / Earliest Completion:

~ \$150-200 M / 2024

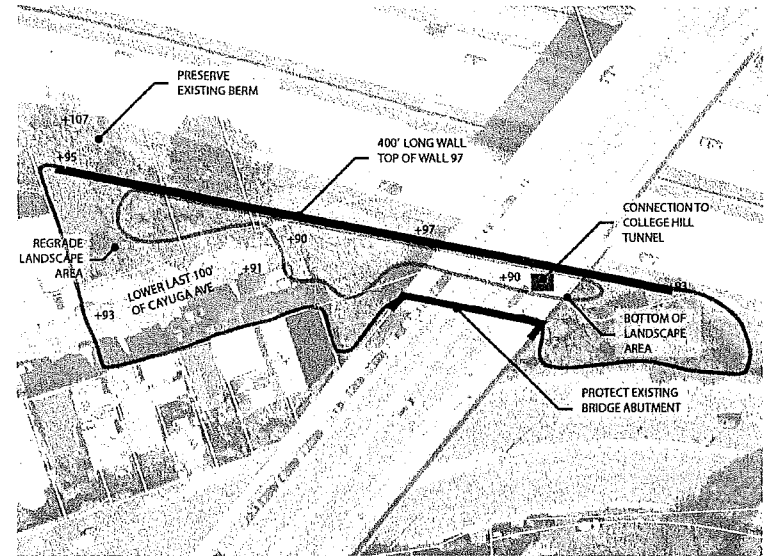




Cayuga/Alemaný Corridor

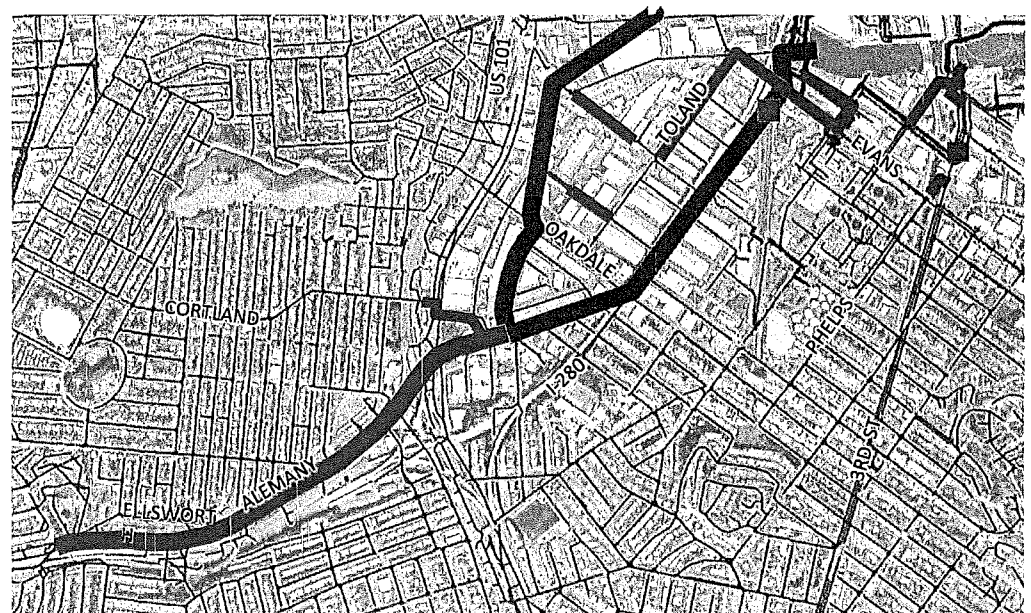
Cayuga Description:

- Re-grade / depress Caltrans property at I-280 to detain / drain surface water
- Build wall to support I-280
- Performance: Reduce flood depth at end of Cayuga in 25-year storm
- Status: Planning / Caltrans negotiations
- Cost / Schedule: ~ \$12 M / 2019



Alemaný Description:

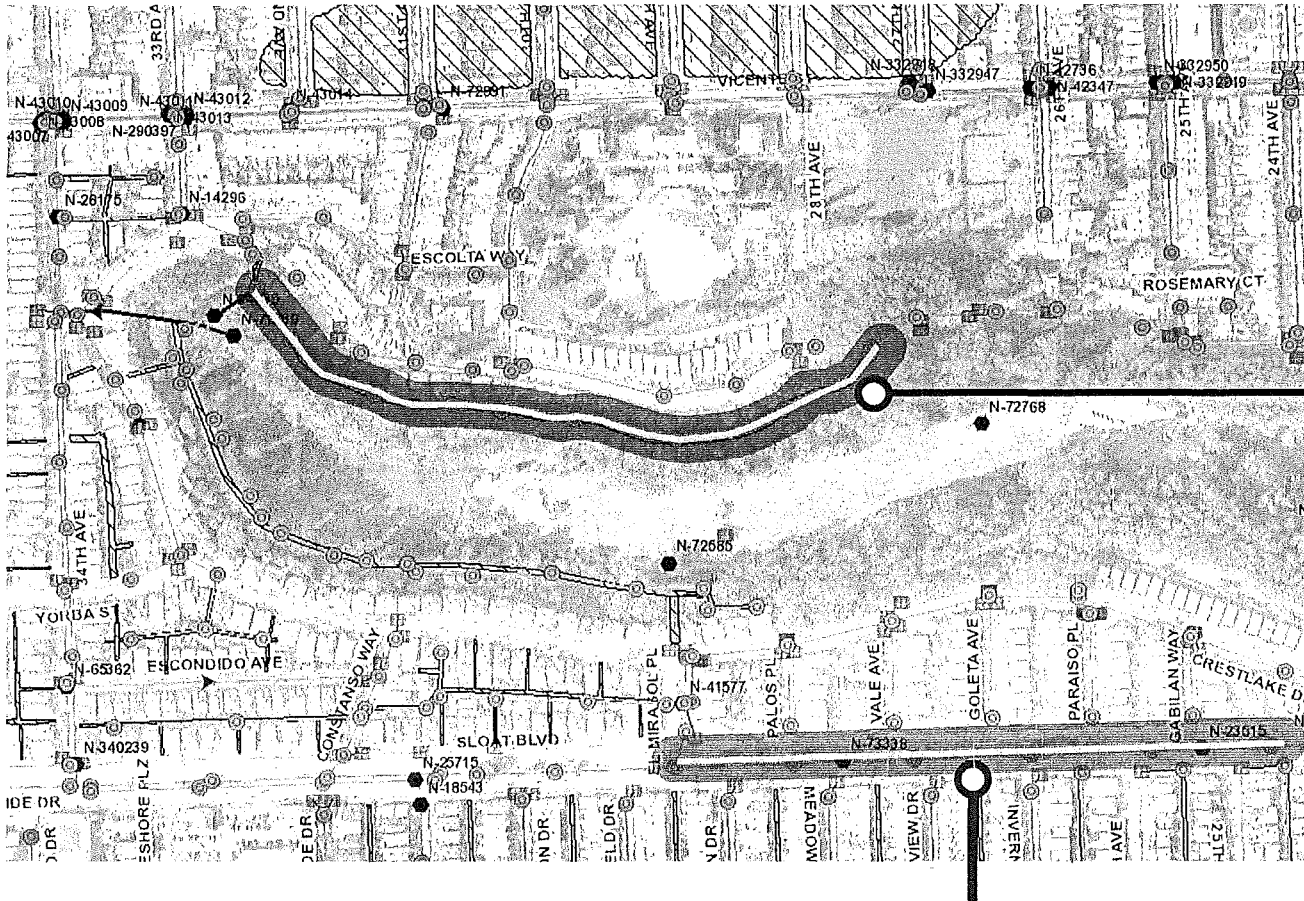
- Move flows to the Bay
- >1 mile new large parallel sewer
- Performance:
Manage 5-year storm along Alemaný
Reduce degree of flooding/backups at end of Cayuga in 25-year storm
- Status: Concept evaluation
- Cost / Schedule: ~ \$350 M / TBD





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Wawona (downstream) and Sloat neighborhoods



Wawona sewer

- Behind homes on Wawona
- Built in 1928
- SFPUC conducted field survey in March
- Currently cleaning and inspecting the pipes
- Investigating the need for action

Sloat Blvd drainage

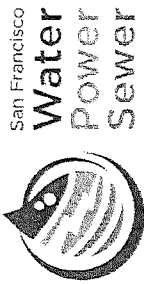
- Caltrans will be constructing bulb outs and repaving Sloat
- The City is working closely with Caltrans on drainage issues



Upper Great Highway

- Placed under SF Recreation & Park Department jurisdiction in 1860's;
- Public Works maintains
- Drains to sand and percolates
- Not connected to SFPUC's combined system
- Sand drifts on the road cause ponding





Flooding Hearing

SHORT TERM: PROGRAMS



Storm Preparation & Response for Collection System

- Sewer inspections
- Catch basin cleaning
 - Goal: clean 5,000 per year (2015 & 2016: nearly 15,000 cleaned)
 - Prior to storms in flood-vulnerable areas
- Staffing
 - Treatment plants
 - StormWatch crews
 - 17th/Folsom barriers
- Sandbag deliveries
 - 1245 delivered in 2017
- 311 response





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Partnership with Property Owners: Available Programs

- **Flood Insurance**
 - Policies have quadrupled
- **Floodwater Grant (up to \$30,000 per property)**
 - \$140,000 paid;
 - \$60,000 in review process;
 - More applications coming soon
- **Adopt-A-Drain**
 - >1,500 drains adopted
- **Small Business Disaster Relief Fund**





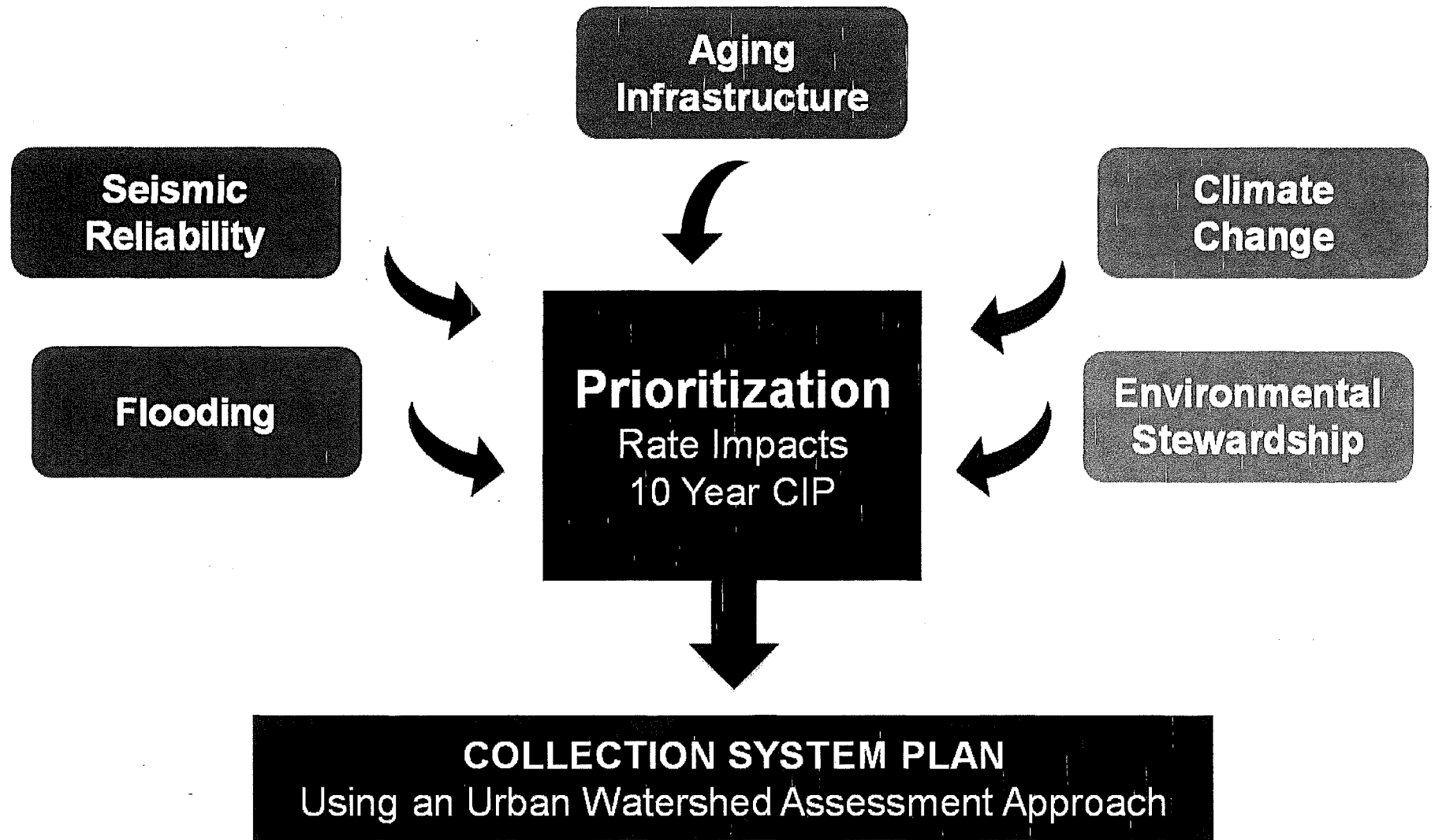
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Flooding Hearing

NEXT STEPS



Long Term: Collection System Plan





Short Term: Beyond Infrastructure

Continue to explore full suite of options above/beyond our infrastructure

Existing Programs

- Flood Insurance
- Floodwater Grant
- Adopt-A-Drain
- Small Business Disaster Relief Fund

Potential Future City Programs Under Evaluation

- Identify areas vulnerable to flooding:
 - Flood-resistant construction (new developments, major renovations)
 - Disclosure at Point-of-Sale
- Investigate concept: larger grants to floodproof and/or raise structures
- Investigate concept: select voluntary property acquisition



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Flooding Hearing

THANK YOU

170116

Public Safety and Neighborhood Services Committee
May 12, 2017

Members: Hillary Ronen
Jeff Sheehey
Sandra Lee Fewer

Clerk: Erica Major

Subject: Flood Mitigation Plans

Dear Committee Members:

As a member of the Pine Lake Park Neighborhood Association, I want to bring to your attention two areas of concern. (1) The historical flooding which has occurred from the high-rise manhole covers located in the sewer easement behind 1715-2143 Wawona Street overlooking Pine Lake Park. (2) The repeated seasonal flooding which inundates the northern side of Sloat Boulevard and El Mirasol Place.

The sewer easement behind the homes on Wawona Street is approximately 1000' long and contains at least six high-rise manhole covers. During past rainy seasons, the capacity of this sewer system has often been overwhelmed. As a result, manhole covers have blown off and excess rain water has escaped down slope into Pine Lake Park. In a effort to correct this problem, two of the manhole covers have been permanently secured. A picture is included for your reference.

While other sewer lines in the District 4 have been surveyed physically and by camera, this area is difficult to access; and we believe a through inspection of this stretch of easement is needed. On Wednesday last week (4/5/2017), pumps and equipment from Pipe & Plant Solutions Inc. conducted flow tests and removed a large quantity of rubble from a single catch basin on the closed section of Wawona Street. We would like the entire 1000' section to be serviced and a long term solution proposed.

Finding a solution to the flooding on Sloat Boulevard has been complicated by the need for cooperation between at least three agencies: CALTRANS, SFMTA and DPW. For the last year, CALTRANS & SFMTA have insisted that a wrap-around pedestrian bulb be installed on the NE corner of this intersection. Although support exists for a bulb and handicap ramp on Sloat Boulevard, opposition has been continually stated to extending this bulb around onto El Mirasol Place.

El Mirasol Place is the primary access route for heavy equipment to transit to Pine Lake Park, Crestlake Drive and adjacent streets. Although a Fire Department truck with a driver and tiller person might not find this turn difficult, other vehicles like long flatbed trucks, front end loaders and large cranes will be encumbered. None of the neighbors has expressed any difficulty crossing El Mirasol Place; and in fact, no bulb is included in their plans for the opposite NW curb.

In an email from Cliff Wong, DPW Hydraulic Engineer, to Joonkoo Kang, CALTRANS Project Manager, Mr. Wong stated "Please note that there are insufficient number of street drainage inlets along Sloat Boulevard. The City's standard requires maximum 600' spacing between inlets. However, the next existing inlet is over 2000' upstream from El Mirasol intersection." When Mr. Kang was asked if CALTRANS planned to install more inlets along Sloat at a public meeting April 6, he said "No".

This leaves doubt whether any planned changes will indeed lead to a satisfactory result.

Based on the wrap-around pedestrian bulb, we were told that CALTRANS and DPW engineers reached a compromise. However this project has been under consideration more than one year; and the neighbors first learned of this proposal at the meeting on April 6. There has been no opportunity for public review or comment. CALTRANS simply stated that they intended starting their Sloat Boulevard Street Paving Project on April 17, 2017.

When viewing the plans made available to us, we are glad that the new drains are designed to direct excess water away from El Mirasol Place and into an existing service line within Sloat Boulevard.

The CALTRANS project will not end until September 2017. The neighbors would like a opportunity to review this project with DPW and CALTRANS to consider alternatives to the wrap-around pedestrian bulb and better understand the likelihood that the current plans will actually fix the flooding.

Thank you.



Patrick Skain
Member, Pine Lake Park Neighborhood Association
300 Crestlake Drive
(415) 682-9995

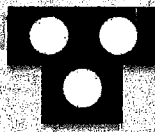


Sloat Blvd and El Mirasol Pl

Wrap-around pedestrian bulb shortens crossing distance across both Sloat and El Mirasol

← EXISTING STORM DRAIN

Sloat Blvd



Possible traffic signal would provide flexibility for Muni Line 57 routing

Relocate Bus Zone

Moving eastbound bus zone provides space for pedestrian bulb to shorten crossing distance across Sloat

Middlefield Dr



SFMTA
San Francisco Municipal Transportation Agency



Wong, Cliff (DPW) <Cliff.Wong@sfdpw.org>

Kang, Joon@DOT, Thomas, John (DPW), Rivera, Patrick (DPW)

McElhinney, Dan@DOT, Lau, Dixon@DOT, Peterson, Joseph@DOT, Tang, Katy (BOS),

Nuru, Mohammed (DPW), and 5 more...

Joon:

We have reviewed and approved your proposed Alternative 2 for drainage work at the intersection of El Mirasol Avenue with the following exceptions:

1. We recommend that one of the proposed inlets at the north east corner (inlet 4 on attached sketch A) shall be connected to the existing manhole located at the intersection of El Mirasol Avenue and Sloat Boulevard. Connection of culvert to the manhole riser will minimize the depth of excavation.
2. Inlets 1, 2 and 3 shall be in accordance with San Francisco Public Works Standard plan 87,187.
3. Inlet 4 shall be type GO per Caltrans Standard Drawing D47B with following modifications: These inlets shall be at least 3' deeper than shown on the Caltrans Standard drawing. This will allow installation of cast iron trap on the outlet pipe which will be 3' higher than the inlet bottom.

✓ In addition, please note that there are insufficient number of street drainage inlets along Sloat Boulevard. The City's standard requires maximum 600' spacing between inlets. However, the next existing inlet is over 2000' upstream from the El Mirasol intersection. We had previously suggested additional inlets to be installed upstream of this intersection under a future Caltrans Paving Project. However, it has come to our attention that Caltrans also intends to pave Sloat Boulevard as part of this project. Hence, we recommend that additional three (3) inlets shall be installed between El Mirasol Avenue and Crestlake Drive at the locations shown in attached sketch A (identified as inlet 5, 6 and 7). These inlets shall be similar to one mentioned in 3 above and be placed at locations near an existing manholes so that the culverts can be connected to manhole risers thus minimizing depth of excavation.

Please let me know if Caltrans Staff and/or your contractor have any further questions.



Cliff Wong
Hydraulic Engineering

Infrastructure Design and Construction
San Francisco Public Works
City and County of San Francisco
1680 Mission Street, 2nd Floor
San Francisco, CA 94103
(415) 554-8339
sfpublicworks.org • twitter.com/sfpublicworks

> Show original message



OVER →

← Back to Message

SDAlternativePackage-04222...

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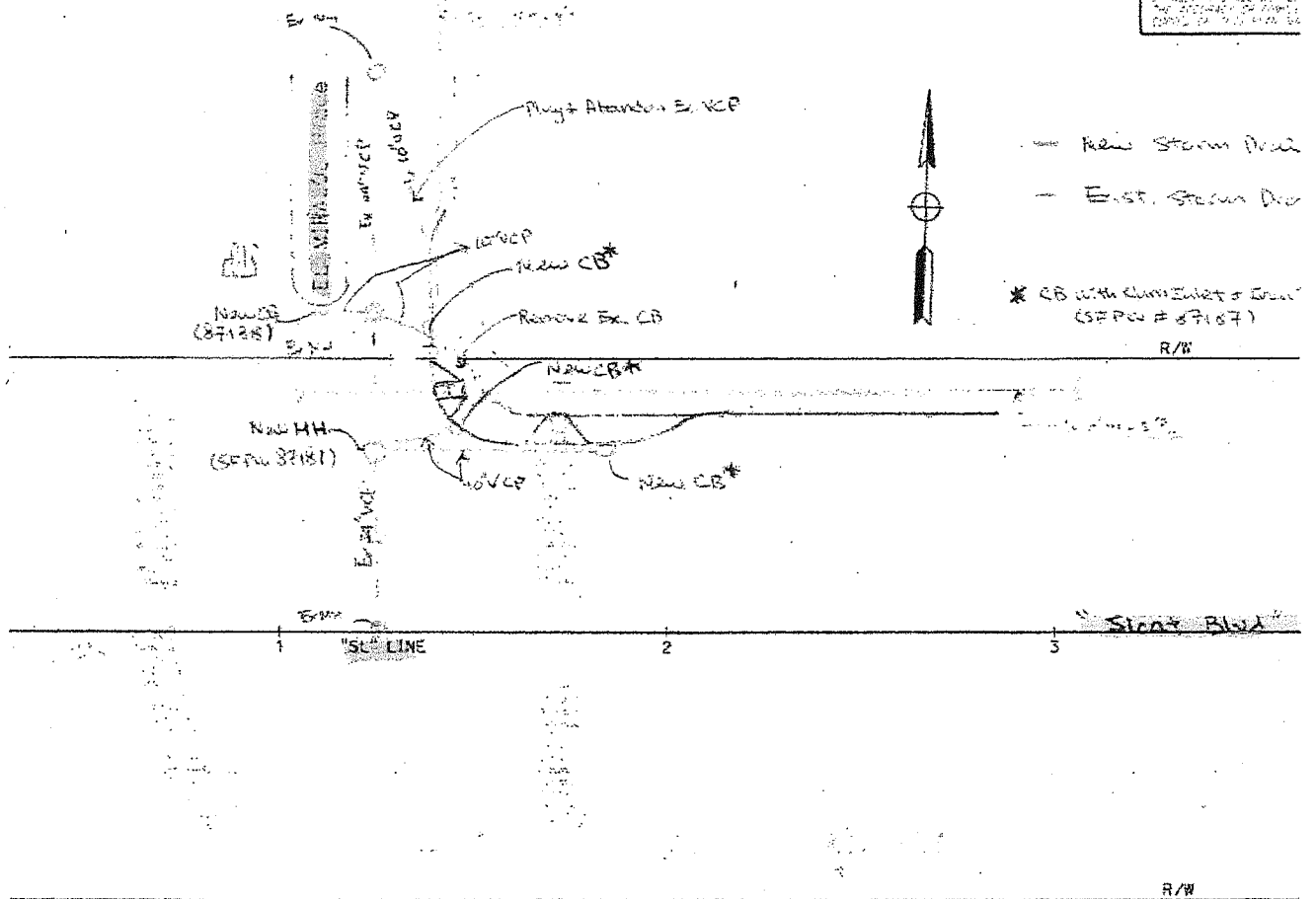
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PLANS APPROVAL DT

DATE: 04/21/17

BY: [Signature]

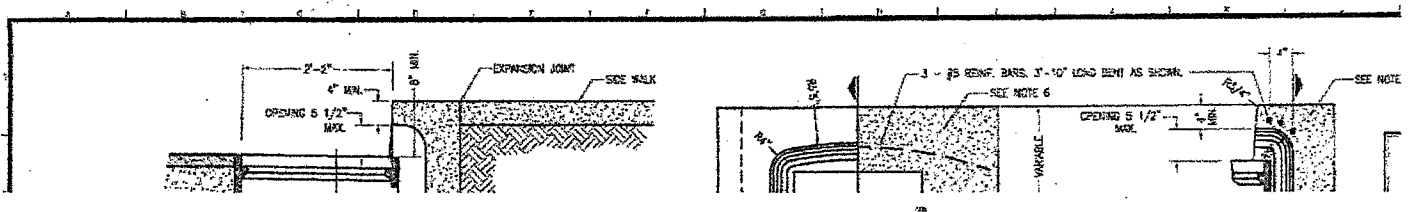
FOR: [Signature]



Act # 2 (Storm)

04/21/17

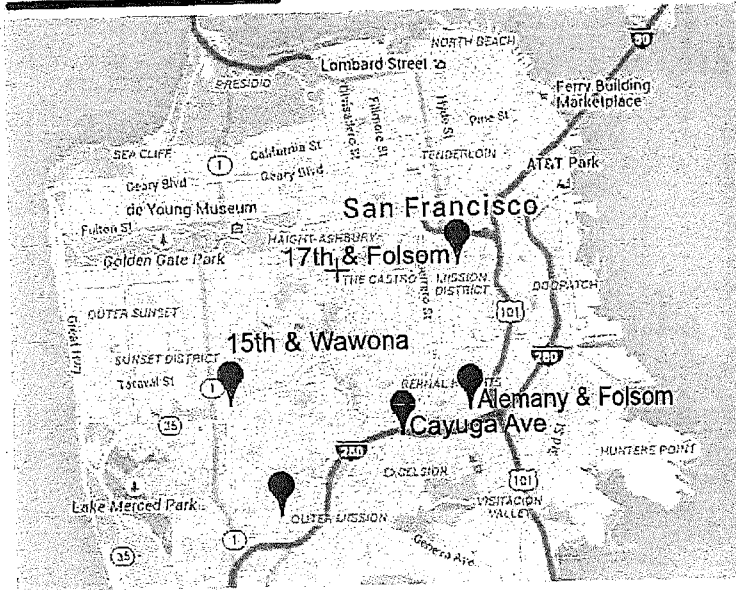
SYLVAN DT



SOLUTIONS NOT SANDBAGS

Bringing awareness to SF's failing sewer system

www.SolutionsNotSandbags.org



Some of the worst hit sewer-flooding locations

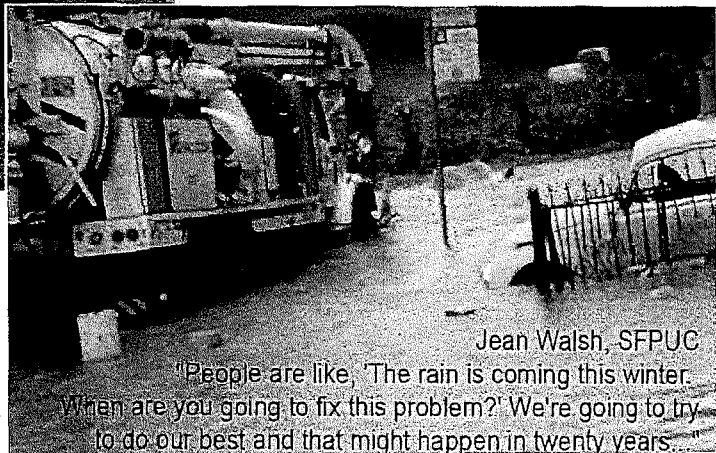


Hans Art, business owner
at 17th and Mission

"We're not asking you to protect us from flooding. We're asking you to fix your sewer system so it won't overflow."

Victoria Sanchez, Cayuga resident

"They [city officials] say, 'Oh, it's an act of God'.. No. It's the plumbing. It has nothing to do with God."



Jean Walsh, SFPUC

"People are like, 'The rain is coming this winter. When are you going to fix this problem?' We're going to try to do our best and that might happen in twenty years."

From: Board of Supervisors, (BOS)
Sent: Tuesday, April 11, 2017 8:35 AM
To: BOS-Supervisors; Major, Erica (BOS)
Subject: FW: Sewage Discharges into Homes and Businesses in San Francisco File No. 170116

From: SolutionsNotSandbags San Francisco [mailto:solutionsnotsandbags@gmail.com]
Sent: Monday, April 10, 2017 9:30 PM
To: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>
Subject: Sewage Discharges into Homes and Businesses in San Francisco

Supervisors;

Before the meeting Wednesday on flooding in San Francisco we would like to make 1 issue clear:

We are not asking San Francisco to solve flooding. We have only asked San Francisco to stop discharging sanitary sewage including human waste out of public sewers across public streets and into our homes and businesses.

It is good that San Francisco would like to address flooding but that ignores the core problem. Discharging human waste out of public sewers into private homes and business is not flooding. It is an incredible health risk. It is clearly neither morally nor legally justifiable.

San Francisco Public Utility Commission officials have attempted to hide the fact that geysers of sewage carry human waste, feces, toilet paper, condoms and sanitary napkins all of which can be found in these discharges. They have tried to marginalize and belittle those who attempt to bring this to the attention of public officials such as the PUC Commission, the Planning Commission and the Board of Supervisors. PUC officials attempt to blame the victims of sewer system mismanagement for the sewage in our homes. We have agreed to put in backwater valves to protect our homes from sewage coming up the sewer pipes in our homes however there is no way to protect ourselves from thousands (or millions?) of gallons of sewage coming out of sewer manholes onto the streets and our homes. Still SF PUC officials want the public and politicians to feel sewage in our homes is our fault. They want you to feel our requests to stop sewage discharges into our homes are unreasonable. They seem to say we should have known we moved into areas with frequent sewage discharges even though SF's floodplain maps show no flooding. This is a blatant example of blaming the victim.

San Francisco PUC officials attempt to deflect attention to the legal risks by pointing out that the system collects all the sewage and sends it to the sewage treatment plant. They claim this makes them exempt from any regulatory requirements to protect public health and safety.

San Francisco's system is not exempt from regulatory control. Other combined sewage systems have had cease and desist orders from the US Environmental Protection Agency requiring them to stop discharging sewage into homes and businesses.

The closest example is Sacramento which was required by their Regional Water Quality Board and the EPA to fix the worst sewage backups immediately and then proceed with a long term plan to fix minor problems over time. Their current sewage discharge permit now requires them to prevent sewage discharges to the streets in a 10 year storm and into structures such as homes and businesses in the 100 year storm. San Francisco leaders are likely to be required to meet the same targets or have to fight the EPA for the right to dump poop on their own constituents. Is that a battle you want to win?

San Francisco might have been immune from prosecution while political allies were in charge of regulatory agencies and legal enforcement. This might change with the political winds. Changes in the administration of the EPA and the US Department of Justice might leave San Francisco ratepayers and taxpayers subject to regulatory enforcement. The US EPA was slow to respond to the public health risks in Flint Michigan. Eventually officials who attempted to hide the public health risks were called into account and prosecuted. Flint is now being used by politicians who oppose regulations as an excuse to cut the US EPA. It should be very clear to all of us that the blatant hypocrisy of saying that San Francisco protects the environment then dumps poop into homes and businesses will also be used by those who oppose regulatory enforcement as an example of why the US EPA and Clean Water Act should be abolished.

Dismantling the US EPA and abolishing the Clean Water Act are definitely not an outcome any of us desire. We all appreciate the benefits of clean water and clean air. Unfortunately San Francisco's hypocrisy of allowing sewage to be discharged into private homes and businesses and saying it is ok because it meets the Clean Water Act will be the end of the Clean Water Act and EPA. **Please do not allow this to happen.**

San Francisco Board of Supervisors should take control of this problem immediately. The SF PUC commission and officials have dug San Francisco into a hole. Instead of addressing the public health risk and regulatory risk PUC officials continue to avoid and delay addressing this problem. **PLEASE DO NOT ALLOW THIS TO HAPPEN. Address this issue immediately.**

We have more detailed information obtained from California Public Records Act requests if you are interested. We will also be providing politicians and the public additional details on similar issues over the coming days.

Thank you very much for your attention to this matter

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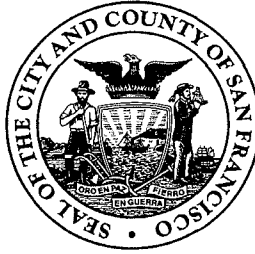
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Bringing Awareness to SF's Failing Sewer System

Website: SolutionsNotSandbags.org

[YouTube](#) | [Instagram](#) | [Twitter](#) | [Facebook](#)

BOARD of SUPERVISORS



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San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

MEMORANDUM

TO: Harlan Kelly, Jr., General Manager, Public Utilities Commission
Mohammed Nuru, Director, Public Works

FROM: Erica Major, Assistant Clerk, Public Safety and Neighborhood Services
Committee, Board of Supervisors

DATE: February 2, 2017

SUBJECT: HEARING MATTER INTRODUCED

The Board of Supervisors' Public Safety and Neighborhood Services Committee has received the following hearing request, introduced by Supervisor Yee on January 24, 2017:

File No. 170116

Hearing on the short and long term strategies to reduce the effects of flooding during heavy storms which severely impact certain neighborhoods in the City, particularly in the upper Great Highway area and Districts 7,8, 9, and 11; and requesting the San Francisco Public Utilities Commission and Public Works to report.

If you have any additional comments or reports to be included with the file, please forward them to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

c: Juliet Ellis, Public Utilities Commission
Donna Hood, Public Utilities Commission
Frank Lee, Public Works

Introduction Form

By a Member of the Board of Supervisors or the Mayor

RECEIVED
BOARD OF SUPERVISORS
SAN FRANCISCO

2017 JAN 24 PM 3:11
Time stamp
of meeting date

I hereby submit the following item for introduction (select only one):

- 1. For reference to Committee. (An Ordinance, Resolution, Motion, or Charter Amendment)
- 2. Request for next printed agenda Without Reference to Committee.
- 3. Request for hearing on a subject matter at Committee.
- 4. Request for letter beginning "Supervisor inquires"
- 5. City Attorney request.
- 6. Call File No. from Committee.
- 7. Budget Analyst request (attach written motion).
- 8. Substitute Legislation File No.
- 9. Reactivate File No.
- 10. Question(s) submitted for Mayoral Appearance before the BOS on

Please check the appropriate boxes. The proposed legislation should be forwarded to the following:

- Small Business Commission Youth Commission Ethics Commission
- Planning Commission Building Inspection Commission

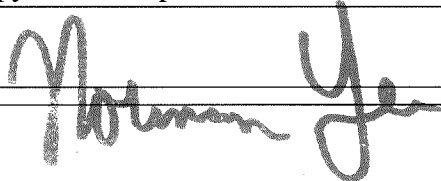
Note: For the Imperative Agenda (a resolution not on the printed agenda), use a Imperative Form.

Sponsor(s):

Subject:

The text is listed below or attached:

Signature of Sponsoring Supervisor: _____



For Clerk's Use Only: