

EAST SIDE COASTAL RESILIENCY PROJECT

PROJECT ID: SANDRESM1



NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION
IN PARTNERSHIP WITH THE NEW YORK CITY DEPARTMENT OF PARKS & RECREATION
AND THE MAYOR'S OFFICE OF RECOVERY & RESILIENCY

AGENDA

PROJECT BACKGROUND

- Project Goals - A Stronger More Resilient New York
- Past Efforts - The BIG-U & Rebuild by Design
- Where We Are Now - East Side Coastal Resiliency Project
- What Else is Happening - Complementary Processes
- Community Engagement Objectives
- Project Team

PROJECT OVERVIEW

- Where We're Working - Project Scope
- Project Schedule
- Design Elements

ONGOING ENGINEERING

- What's There Now - Investigating Existing Conditions
- What Happened During Sandy - Collecting Data and Existing Knowledge

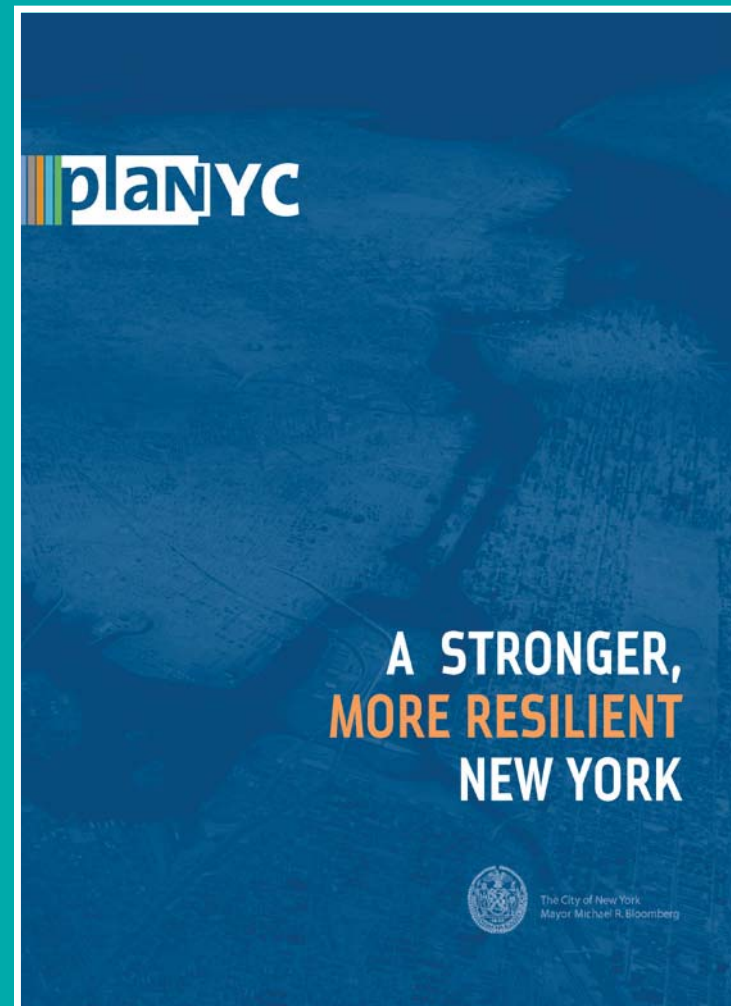
DESIGN AND PUBLIC ENGAGEMENT

- Designing with the Community
- Community Engagement Schedule
- Create Concept Design Options through Workshops and Meetings

QUESTIONS AND ANSWERS

A STRONGER, MORE RESILIENT NEW YORK

The City's 257 initiatives comprise a comprehensive citywide plan to reduce the risk of extreme weather and climate change



- Strengthen Coastal Defenses
- Upgrade Buildings
- Protect Infrastructure and Services
- Make Neighborhoods Safer and More Vibrant

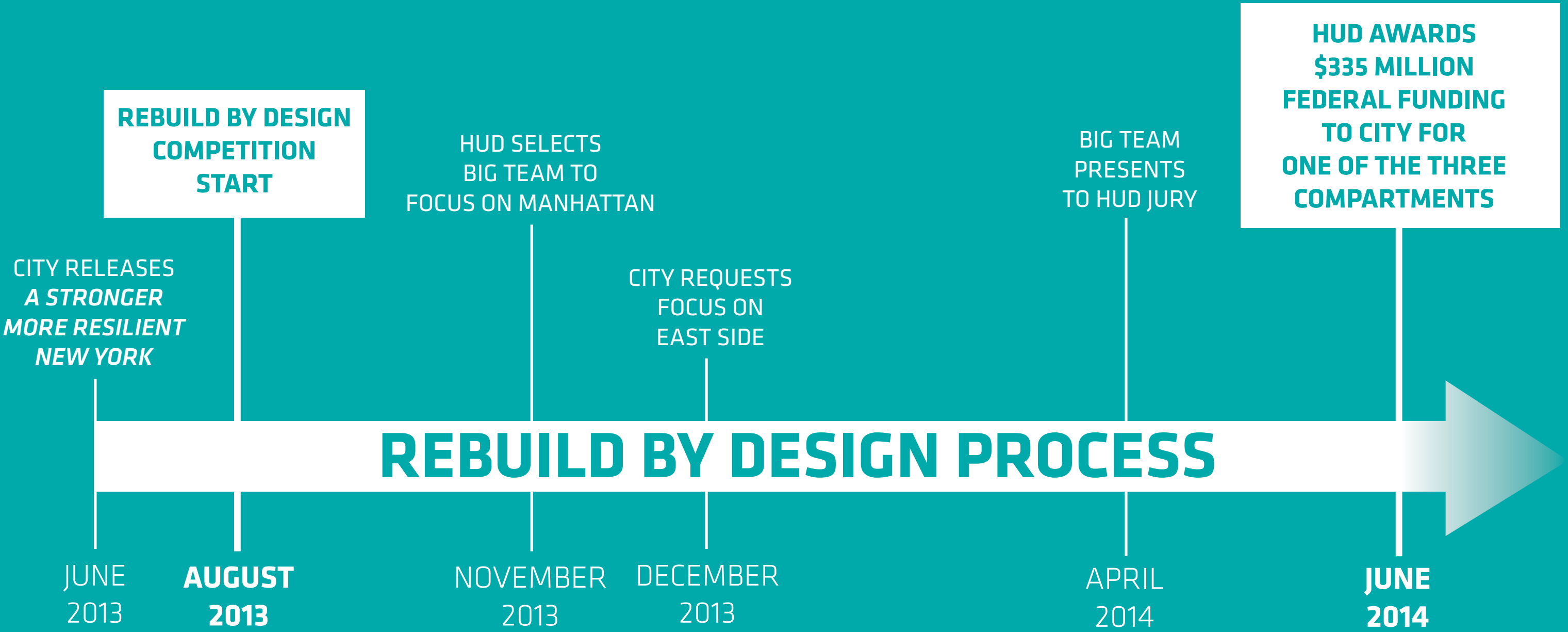
Coastal Protection Initiative 21: Install an integrated flood protection system in Lower Manhattan, Including the Lower East Side



REBUILD BY DESIGN



PROJECT ID: SANDRESM1
EAST SIDE COASTAL RESILIENCY



CITY PROJECT TEAM
ESTABLISHED

OFFICIAL
CONCEPT DESIGN
START

SCHEDULED
CONCEPT DESIGN
COMPLETION

PROJECT
CONSTRUCTION
START

CITY ISSUES
RFP FOR
CONCEPT DESIGN

Q1

Q2

Q3

Q4

DESIGN REFINEMENT

ENVIRONMENTAL REVIEW

PERMITTING

EAST SIDE COASTAL RESILIENCY

SEPTEMBER
2014

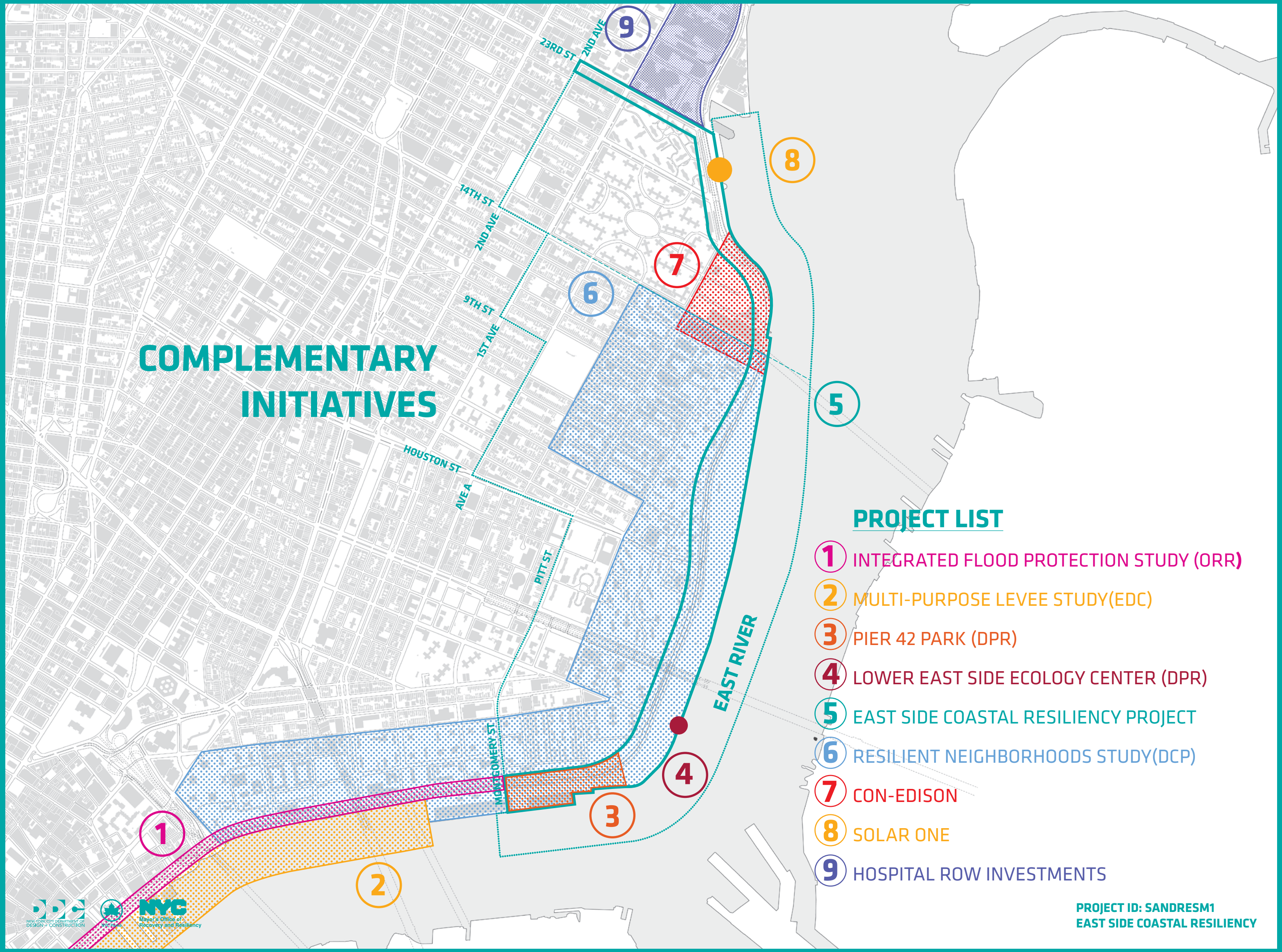
JUNE
2014

DECEMBER
2014

DECEMBER
2015

★ JUNE
2017

COMPLEMENTARY INITIATIVES



PROJECT LIST

- 1** INTEGRATED FLOOD PROTECTION STUDY (ORR)
- 2** MULTI-PURPOSE LEEVEE STUDY(EDC)
- 3** PIER 42 PARK (DPR)
- 4** LOWER EAST SIDE ECOLOGY CENTER (DPR)
- 5** EAST SIDE COASTAL RESILIENCY PROJECT
- 6** RESILIENT NEIGHBORHOODS STUDY(DCP)
- 7** CON-EDISON
- 8** SOLAR ONE
- 9** HOSPITAL ROW INVESTMENTS

COMMUNITY ENGAGEMENT OBJECTIVES

- Continue Public Engagement Begun with Rebuild by Design
- Enable and Facilitate Input from Community Stakeholders through Design
- Collaborate with Community to Establish Design Alternatives in Each Project Area
- Discuss & Balance Opportunities with Project Goals
- Make Team Available as a Resource for Community Planning

CITY

DDC / DPR / ORR

MANAGING LEAD

AKRF

URBAN DESIGN

BIG

LEAD

STARR WHITEHOUSE

LANDSCAPE ARCHITECTURE

ONE ARCHITECTURE

PLANNING

JAMES LIMA P+D

PUBLIC POLICY

FITZGERALD & HALLIDAY

COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT

ENGINEERING DESIGN

ARCADIS

FLOOD PROTECTION + MODELING

CH2MHILL

MARINE ENGINEERING

MATHEWS NIELSEN

LANDSCAPE ARCHITECTURE

ESCR STUDY AREA

PROJECT AREA
2

PROJECT AREA
1

EAST RIVER

HOUSTON ST
AVE A

PITT ST

MONTGOMERY ST

9TH ST
15TH AVE

2ND AVE

14TH ST

23RD ST
2ND AVE



HUD AWARDS
\$335 MILLION
FEDERAL FUNDING FOR
ONE OF THREE
COMPARTMENTS

**OFFICIAL
CONCEPT DESIGN
START**

**SCHEDULED
CONCEPT DESIGN
COMPLETION**

CITY ISSUES
RFP FOR
CONCEPT DESIGN

Q1

Q2

Q3

Q4

RBD

EAST SIDE COASTAL RESILIENCY

SEPTEMBER
2014

MARCH
2015

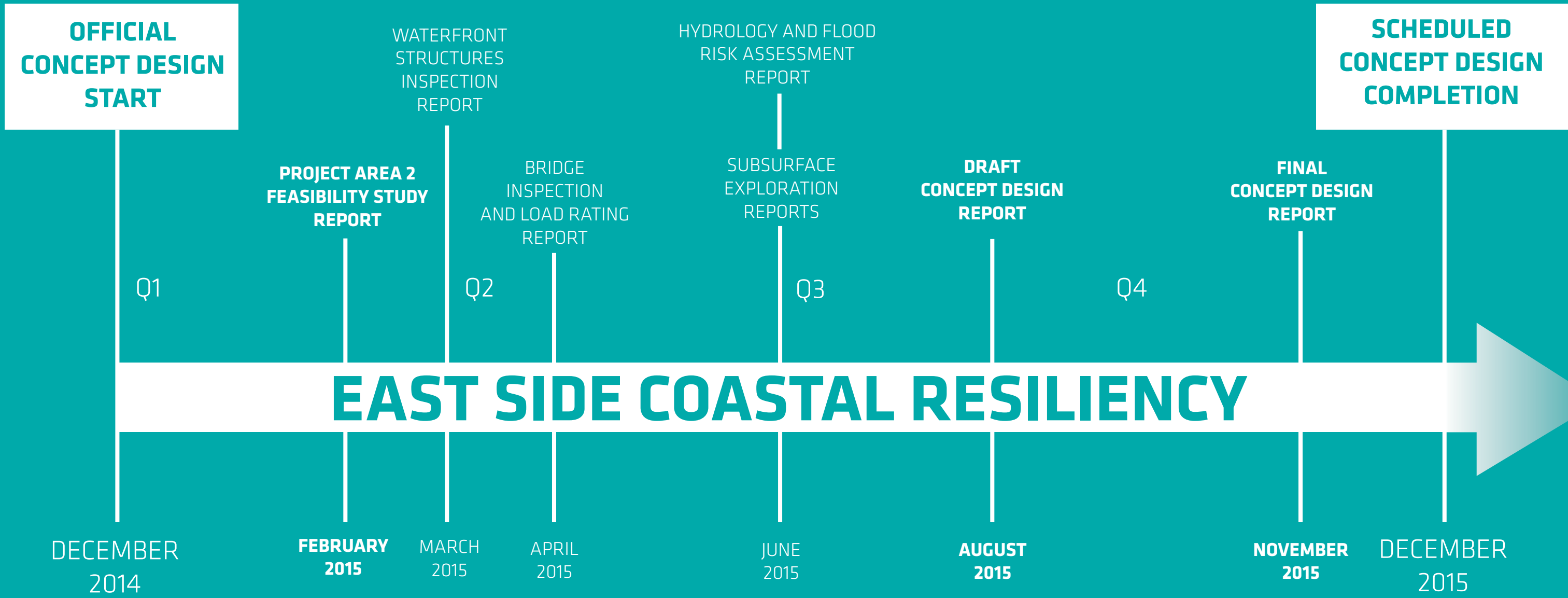
JUNE
2015

SEPTEMBER
2015

JUNE
2014

DECEMBER
2014

DECEMBER
2015



EAST SIDE COASTAL RESILIENCY

MAJOR DELIVERABLES

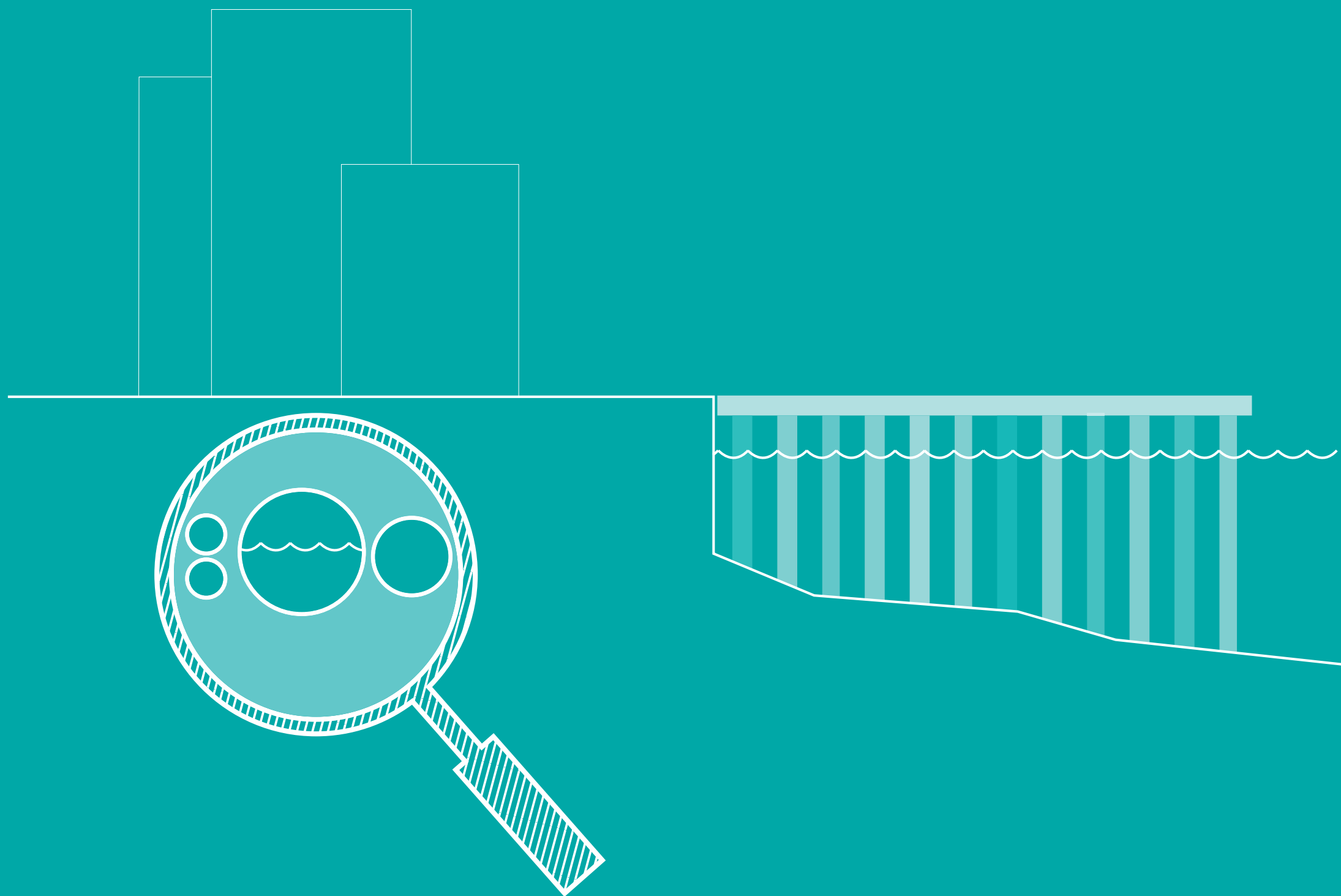
PROJECT ELEMENTS

PROJECT AREA 2

- 2.1 CON-ED
- 2.2 ELEVATED FDR
- 2.3 23RD STREET CLOSURE
- 2.4 STORMWATER PLAN

PROJECT AREA 1

- 1.1 PROTECTIVE BERM
- 1.2 BRIDGES AND ACCESS
- 1.3 WATERFRONT AND CONNECTIONS
- 1.4 PIER 42 PARK/MONTGOMERY CLOSURE
- 1.5 STORMWATER PLAN

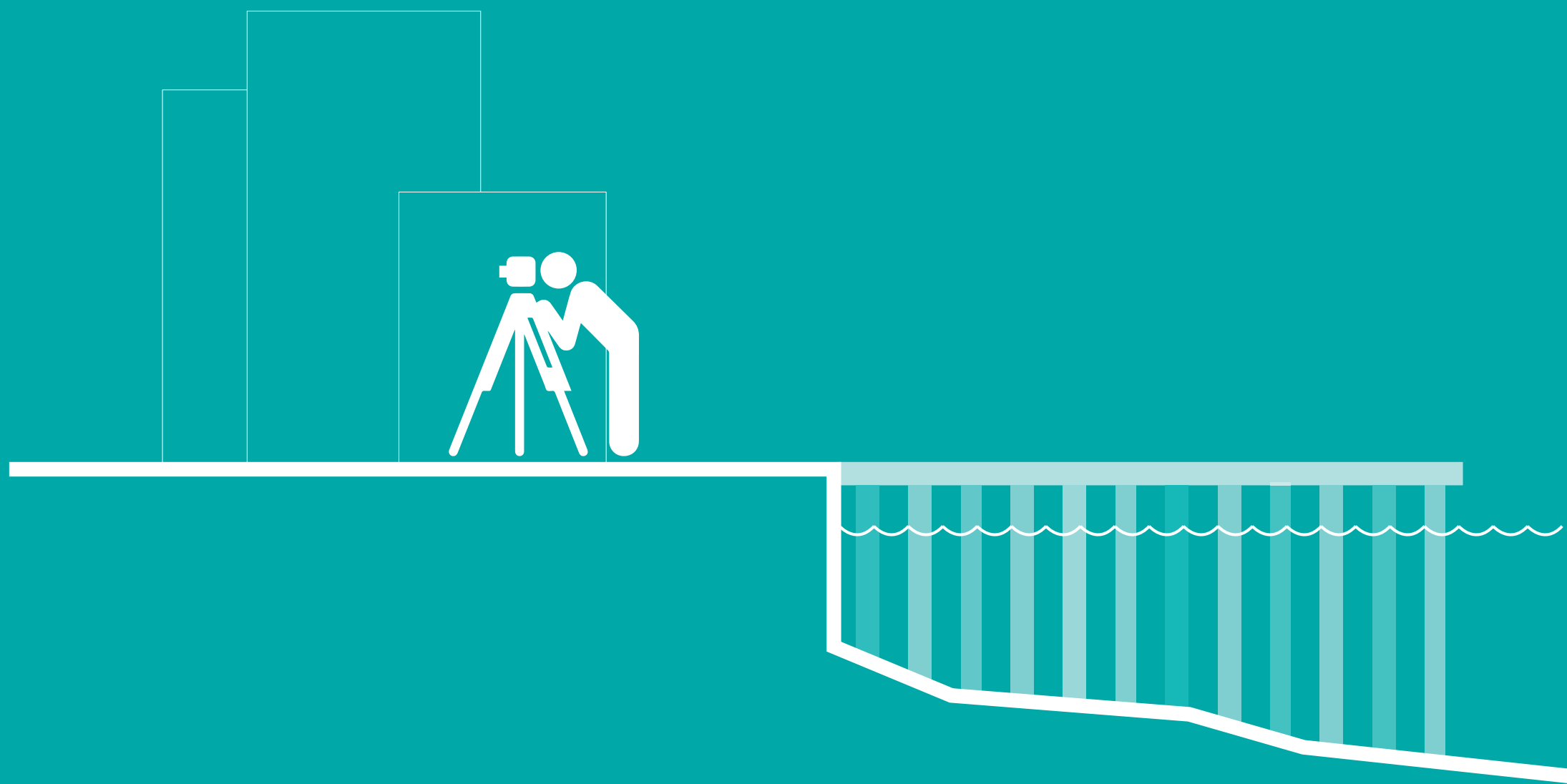


BELOW GROUND INVESTIGATION

(AFFILIATED INITIATIVE DDC)

AUGUST 2014 - JULY 2015

MANHATTAN, NY FDR RD E. BOUND
M157M -> M174M
VCP Circular 15

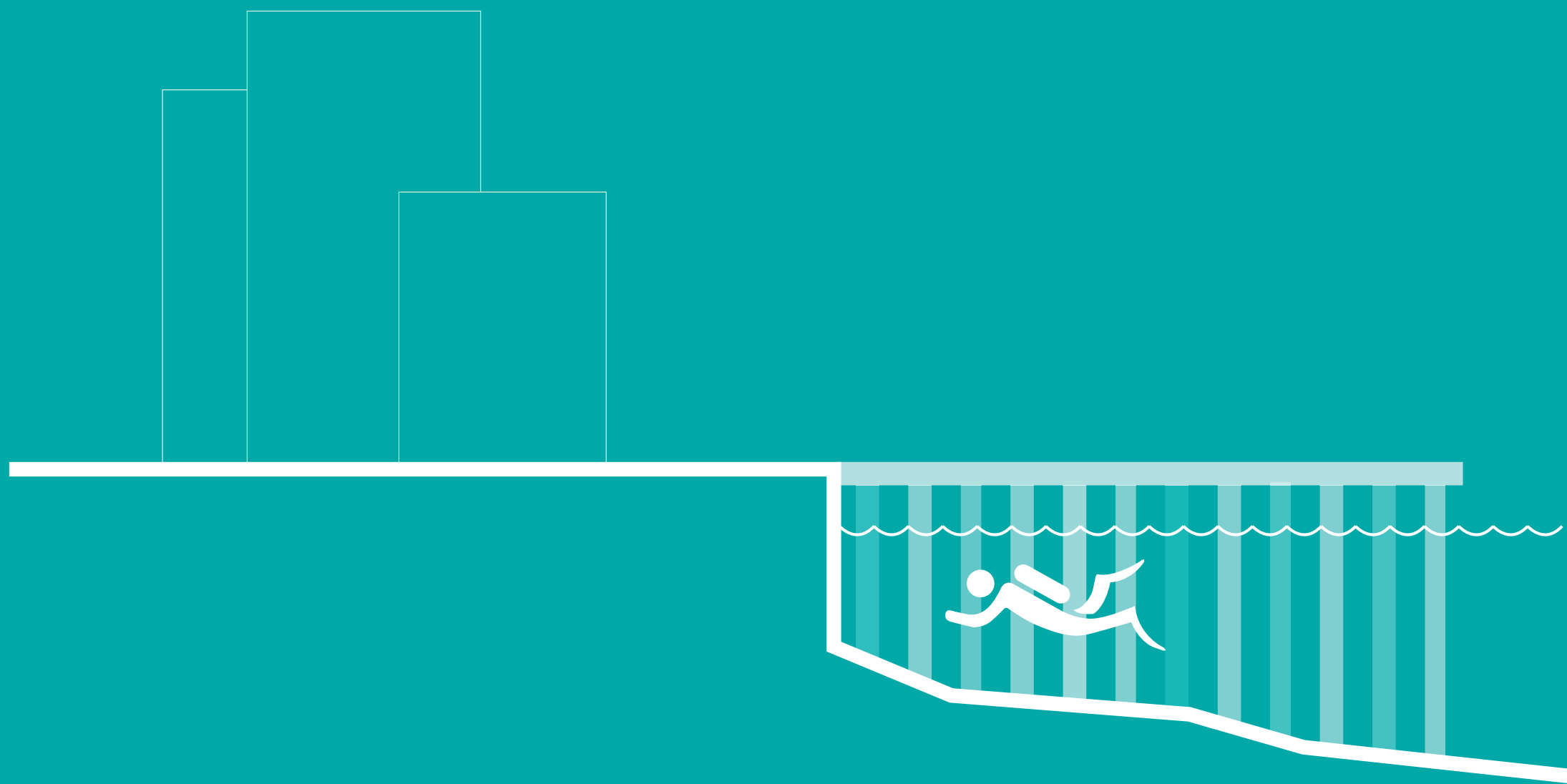


LAND SURVEY
(AFFILIATED INITIATIVE DDC)
SEPTEMBER 2014 - FEBRUARY 2015



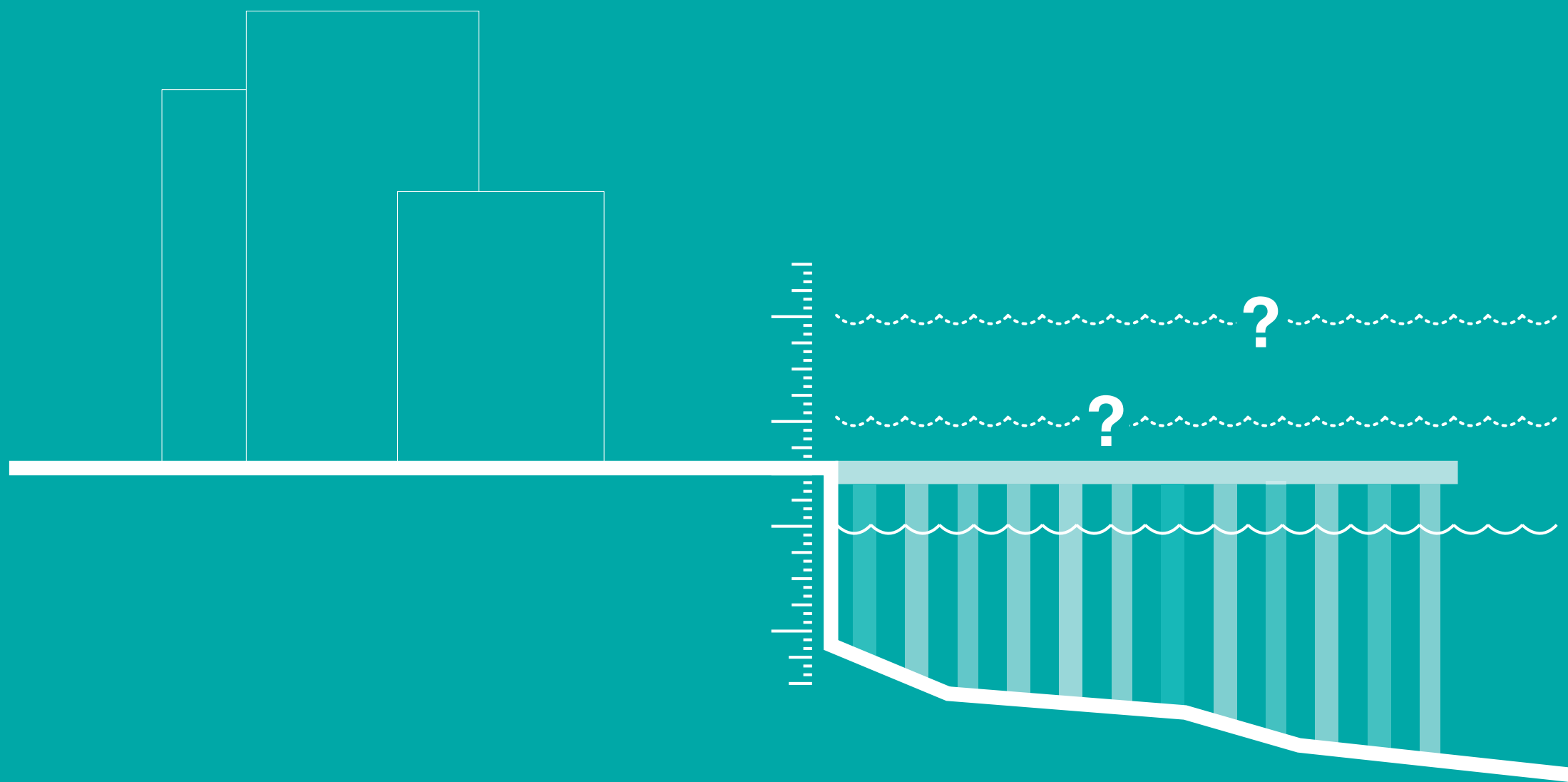
Q1 + Q2: SITE ANALYSIS / NEW DATA COLLECTION

JANUARY - JULY 2015



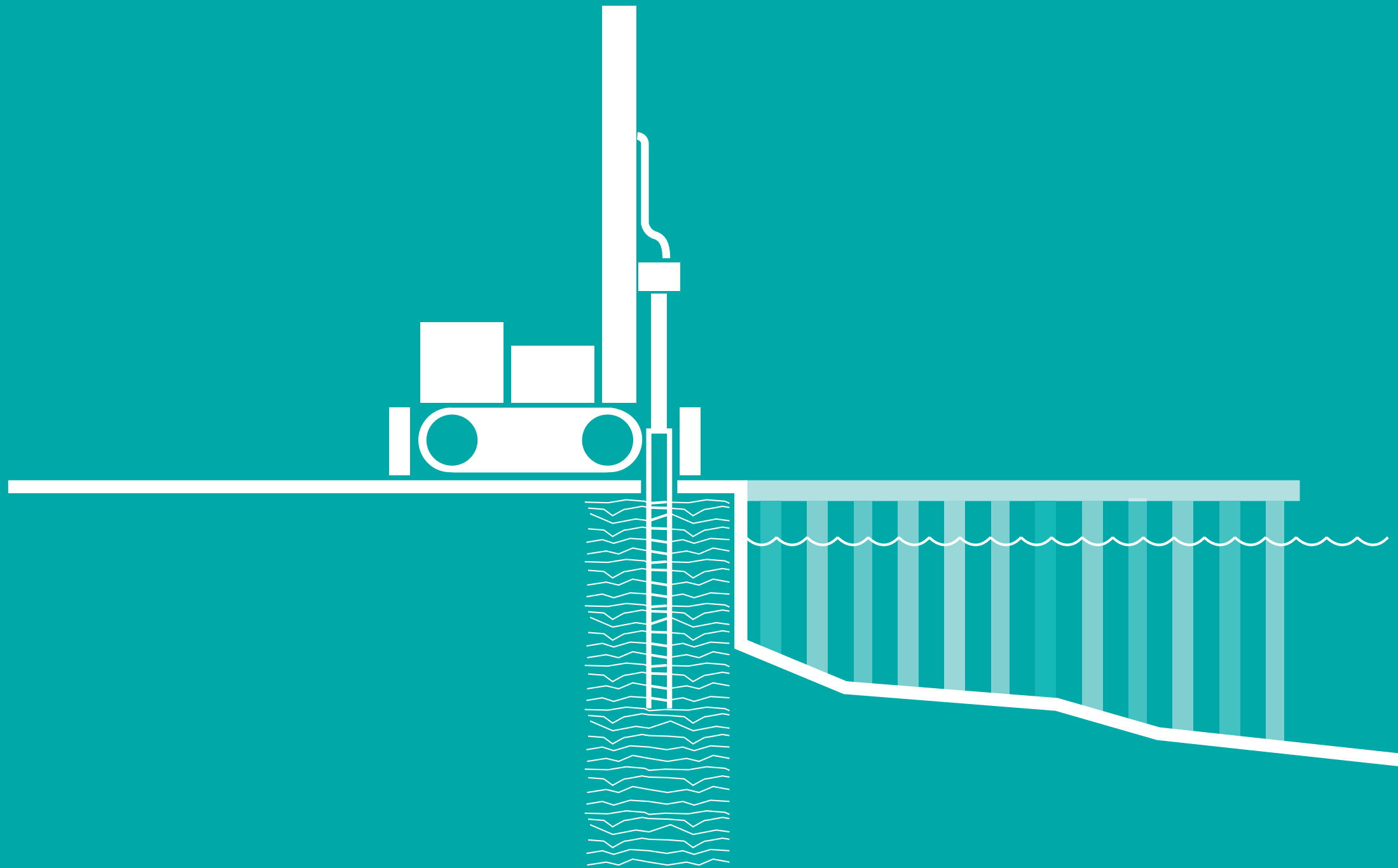
Q1: UNDERWATER INSPECTION OF WATERFRONT STRUCTURES

JANUARY - MARCH 2015



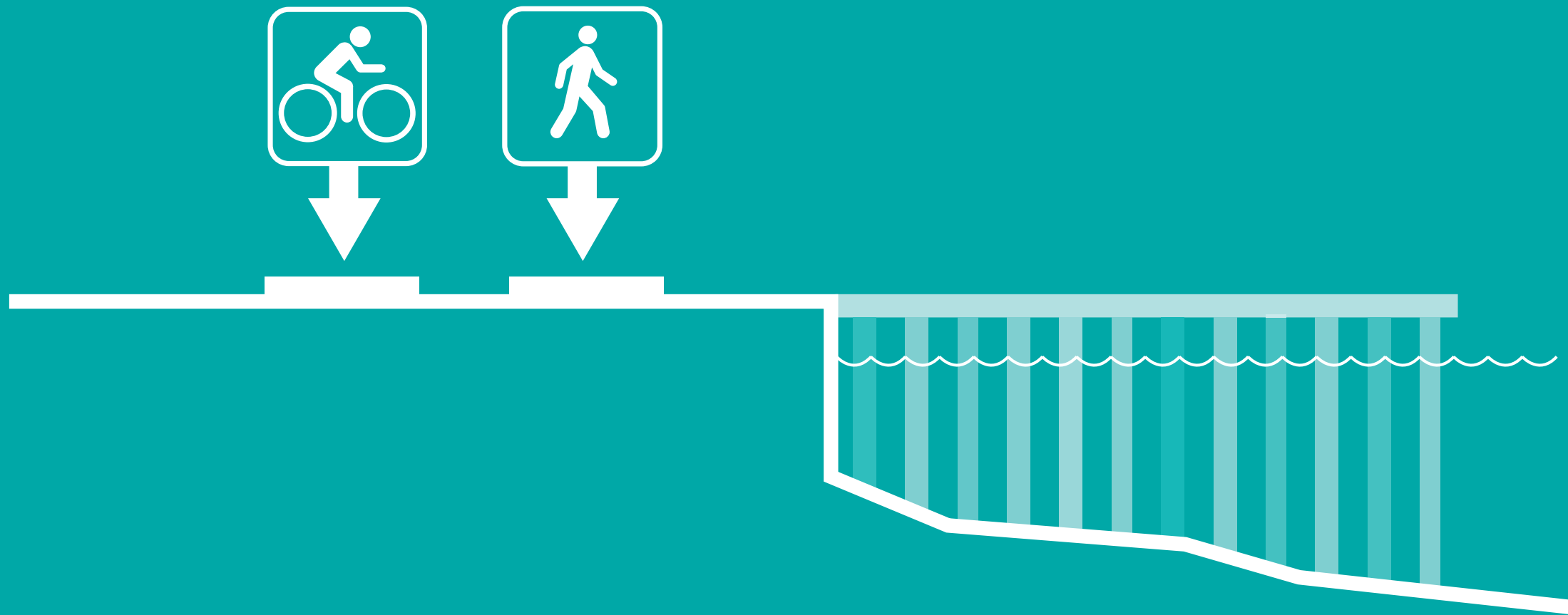
Q1 + Q2: HYDROLOGY AND FLOOD RISK ASSESSMENT

JANUARY - JULY 2015



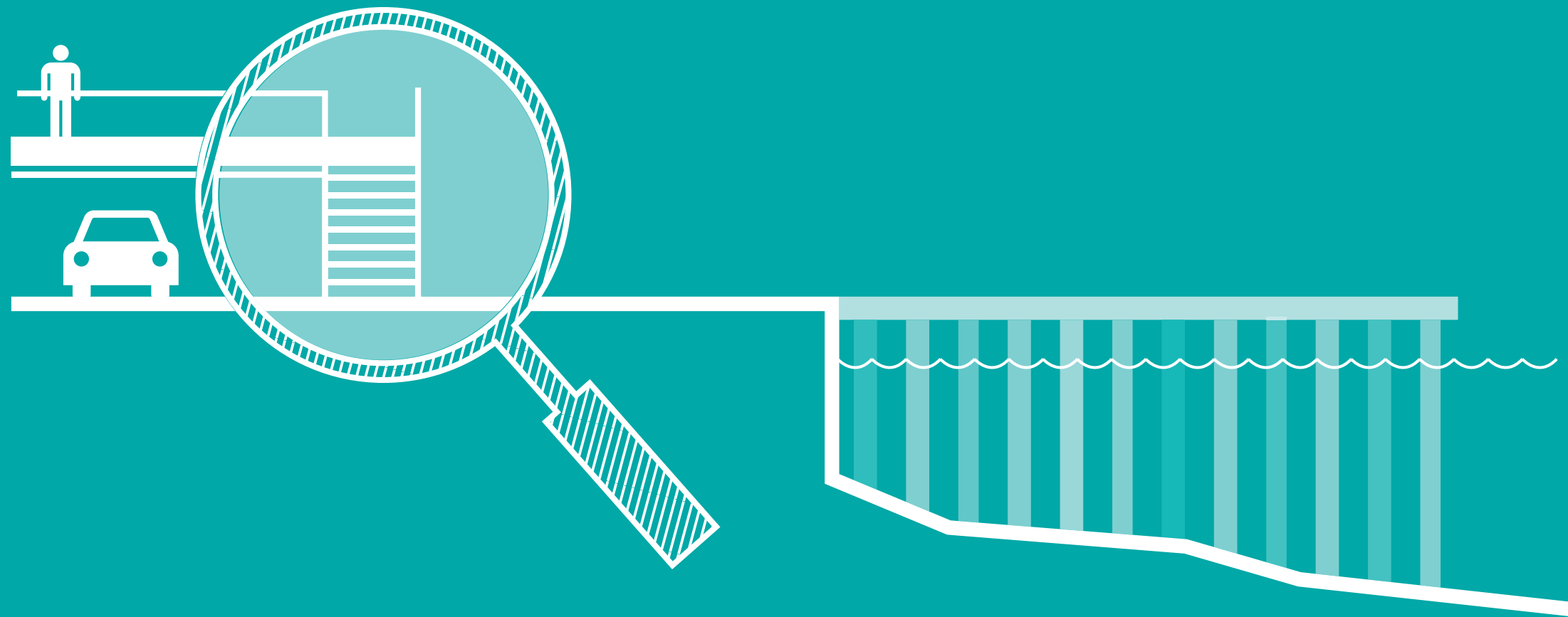
Q1 + Q2: SUBSURFACE EXPLORATION PROGRAM

JANUARY - JULY 2015



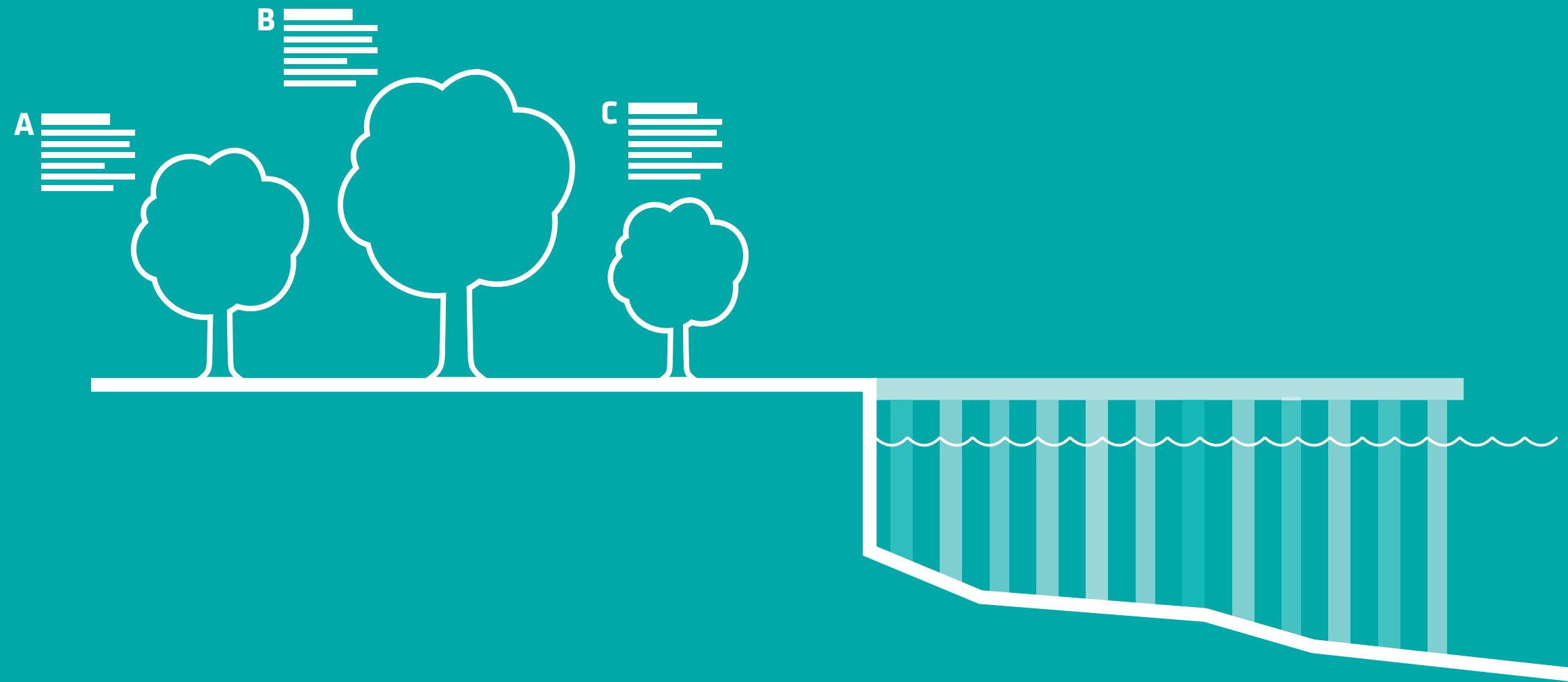
Q1 + Q2: PEDESTRIAN AND BICYCLE TRAFFIC STUDIES

JANUARY - JULY 2015



Q1 + Q2: BRIDGE INSPECTIONS

JANUARY - JULY 2015



Q1 + Q2: TREE INVENTORY

JANUARY - JULY 2015



Q1: REVIEW AND INTEGRATION OF RELEVANT STUDIES

DECEMBER 2014 - MARCH 2015



CONTINUAL PUBLIC INPUT

KEY ISSUES IDENTIFIED BY THE COMMUNITY DURING RBD

PEDESTRIAN BRIDGE CONNECTIONS

- Locations
- Landing Design
- Bridge Design

EAST RIVER PARK BIKEWAY/WALKWAY AND RECREATIONAL FACILITIES

- Addressing narrow segments
- Allowance for Emergency and Maintenance Access
- Programming and Connections

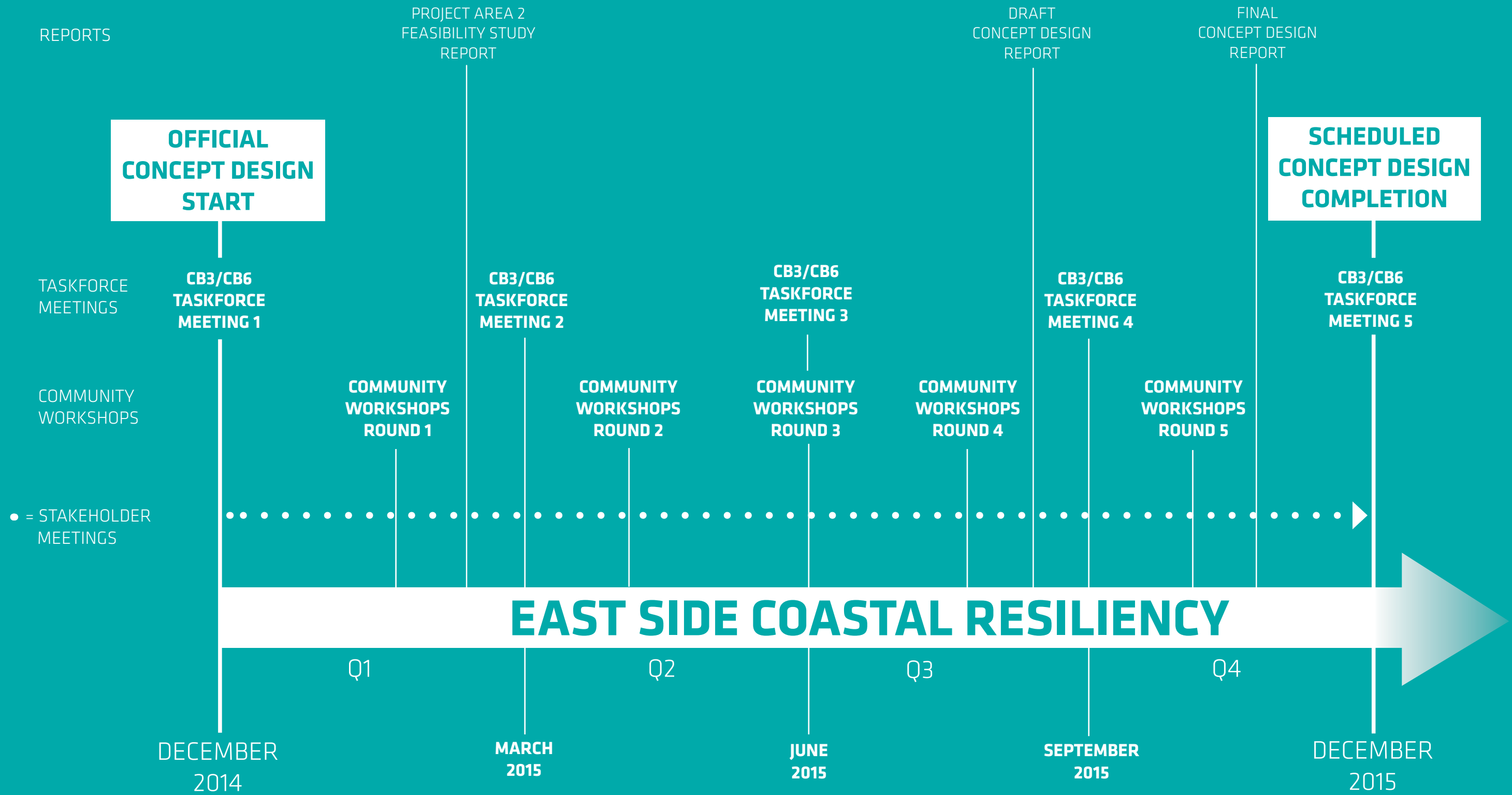
WATERFRONT VIEW CORRIDORS

- Height and Width of Flood Protection Elements
- Finishes

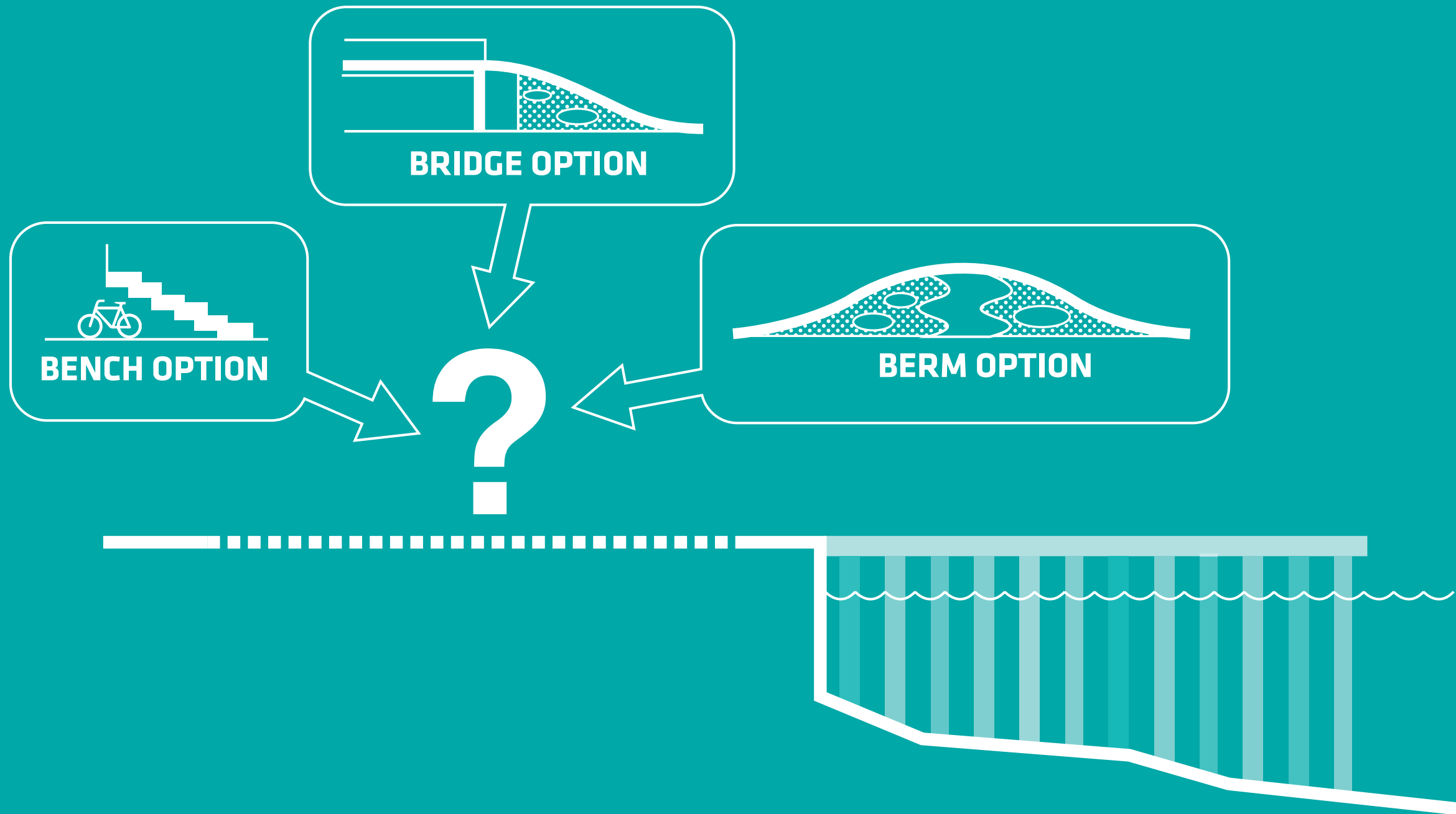
PARK ECOLOGY

- Planting Plans
- Trees
- Upland Connections

NEW ISSUES...



PRELIMINARY COMMUNITY ENGAGEMENT SCHEDULE



Q2+Q3+Q4: CONCEPT DESIGN DEVELOPMENT

MARCH - DECEMBER 2015

1 ENGAGE COMMUNITY/
STAKEHOLDERS

2 COORDINATE WITH
FEASIBILITY ANALYSIS

3 DETERMINE INPUT TO
CONCEPT DESIGN

**PRESENTATIONS AND
COMMUNITY-TEAM-CITY**

- OVERARCHING DESIGN PRINCIPLES AND OBJECTIVES
- WHERE THE DESIGN COMPETITION WORK LEFT OFF
- KEY DESIGN OBJECTIVES FOR PROJECT AREAS ONE AND TWO
- ENGINEERING OBJECTIVES
- CONCEPT DESIGN ISSUES, INCLUDING NEED TO CONSIDER ALTERNATIVES

**WORKSHOPS AND MEETINGS
COMMUNITY**

- INPUT THROUGH ENGAGEMENT SESSIONS
- PUBLIC AND STAKEHOLDER NEEDS
- PRIORITIES FOR CONSIDERATION IN CONCEPT DESIGN

**INTERNAL MEETINGS
TEAM**

- OPTIONS AND ALTERNATIVES
- ENGINEERING FEASIBILITY
- BENEFIT/COST IMPLICATIONS
- TARGETED DESIGN CONCEPTS

**COORDINATION AND UPDATE MEETINGS
CITY**

- DESIGN RECOMMENDATIONS
- DESIGN OBJECTIVES FOR PROJECT AREA
- EVALUATE COMMUNITY PRIORITIES VS. OPPORTUNITIES AND CONSTRAINTS

**FINAL CONCEPT DESIGN
COMMUNITY-TEAM-CITY**

- BALANCE COMMUNITY PRIORITIES WITH OPPORTUNITIES AND CONSTRAINTS
- RISK MITIGATION
- URBAN IMPACT + QUALITY OF LIFE
- COST

COMMUNITY ENGAGEMENT / CONCEPT DESIGN

HOUSING ?

GROUP

ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

ENVIRONMENT ?

GROUP

ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

GROUP

ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

PLANNING ?

GROUP

ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

GROUP

ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

GROUP

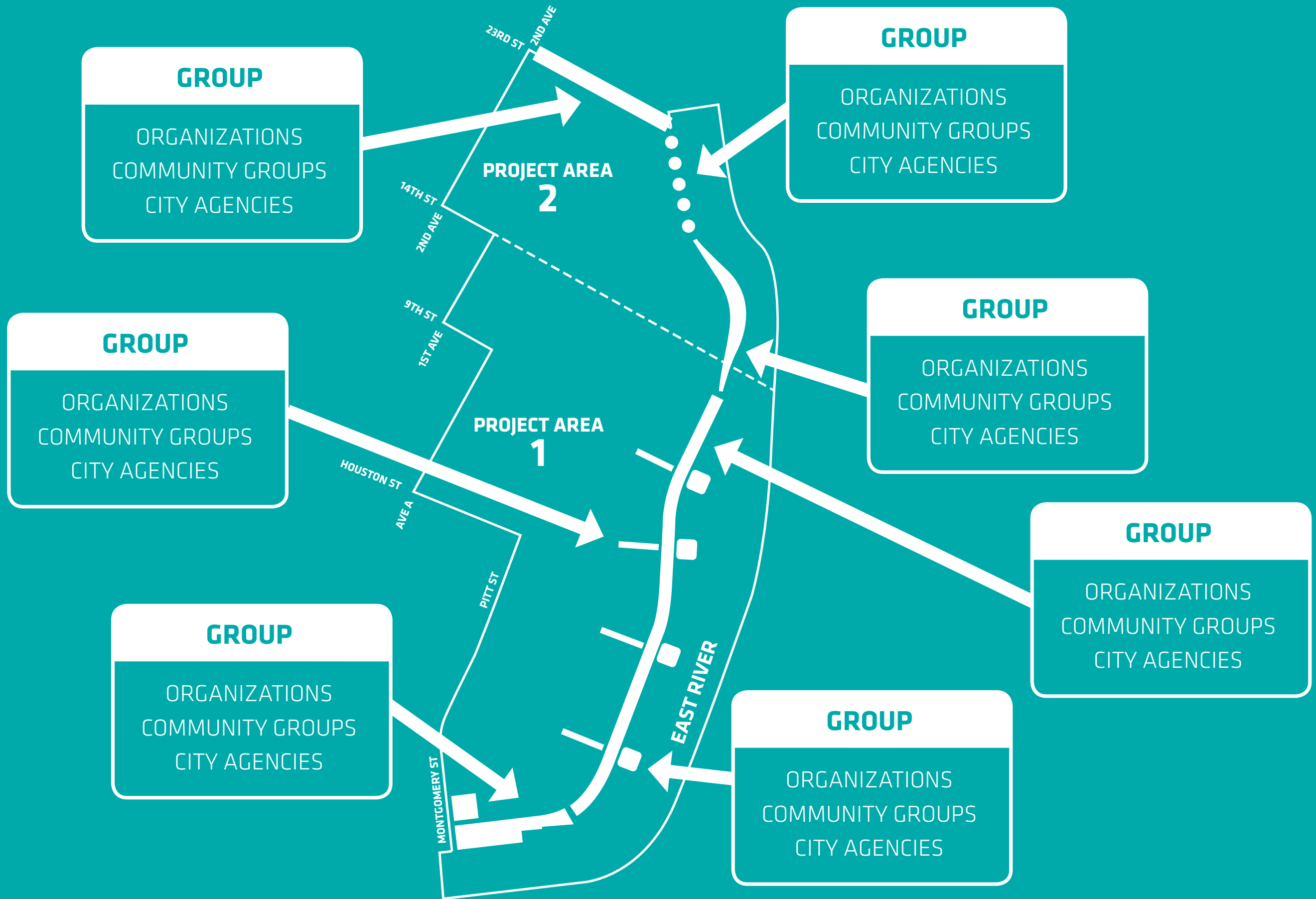
ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

POLICY ?

GROUP

ORGANIZATIONS
COMMUNITY GROUPS
CITY AGENCIES

KEY COMMUNITY / STAKEHOLDERS WORKING GROUPS

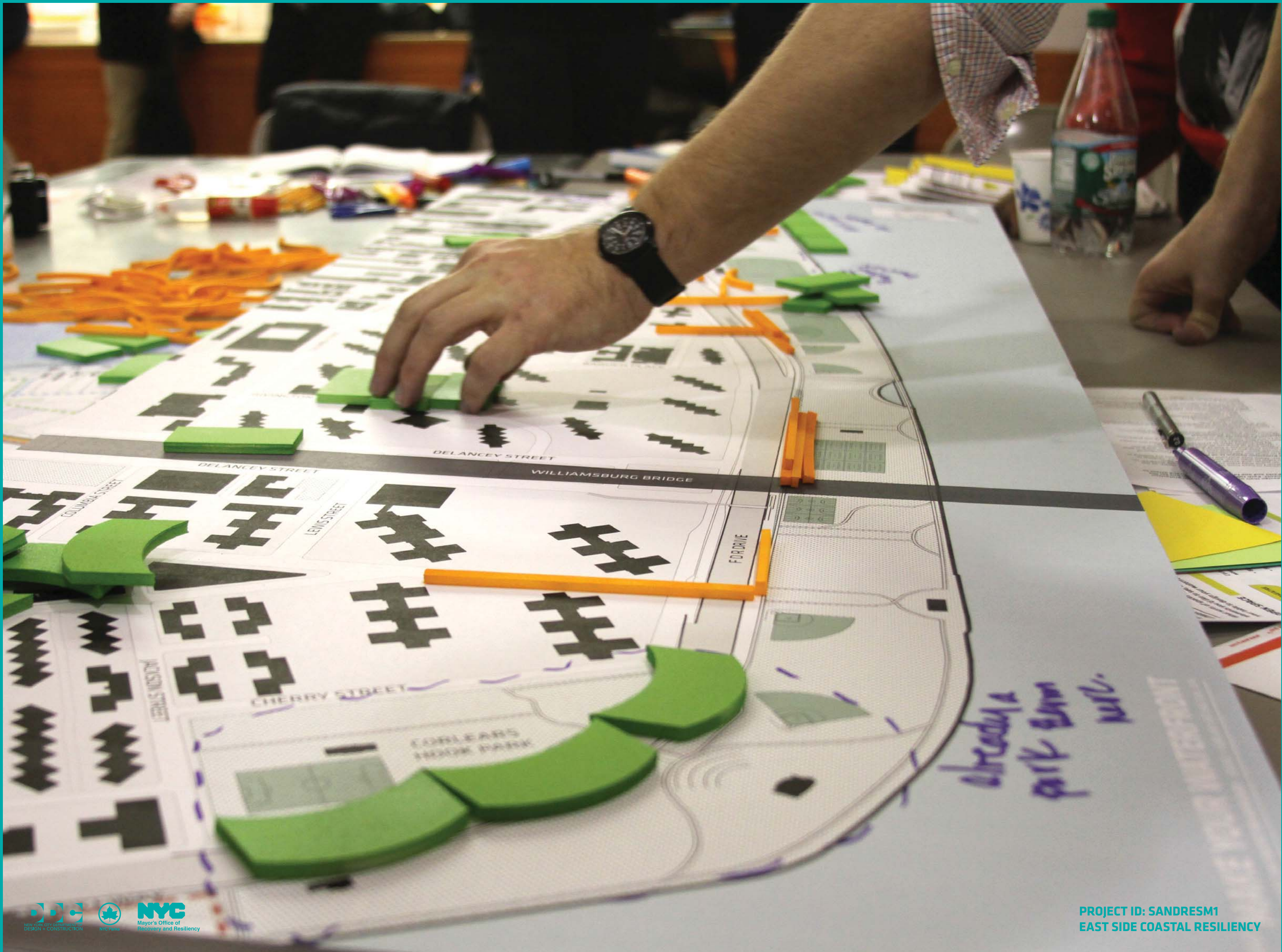


KEY COMMUNITY / STAKEHOLDERS WORKING GROUPS









OFFICIAL
CONCEPT DESIGN
START

SCHEDULED
CONCEPT DESIGN
COMPLETION

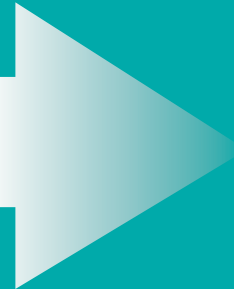
URBAN
DESIGN

| Q1 | Q2 | Q3 | Q4 |
|--|--|--|---|
| <p>STAKEHOLDER MTGS</p> <p>INITIAL ENGAGEMENT MTGS</p> | <p>STAKEHOLDER MTGS</p> <p>ENGAGEMENT MTGS/ DESIGN WORKSHOPS</p> <p><i>IMAGINE ALTERNATIVES ESTABLISH PRIORITIES</i></p> | <p>STAKEHOLDER MTGS</p> <p>DESIGN WORKSHOPS</p> <p><i>PRESENT ALTERNATIVES RECEIVE FEEDBACK DISCUSS PRIORITIES</i></p> | <p>STAKEHOLDER MTGS</p> <p>SHARE DESIGN RESULTS</p> <p><i>SHOW EFFECT OF FEEDBACK SHOW COST-RISK COMPARISONS OPERATIONS AND MAINTENANCE</i></p> |

COMMUNITY ENGAGEMENT

ENGINEERING
DESIGN

| | | | |
|--|--|--|--|
| <p>DATA GATHERING INSPECTION & TESTING (STRUCTURAL, GEOTECHNICAL, UTILITIES, TRAFFIC)</p> <p>HYDROLOGY STUDIES FLOOD/RISK ASSESSMENT</p> <p>PROJECT AREA 2 FEASIBILITY STUDY</p> | <p>FINAL HYDROLOGY AND FLOOD RISK REPORT</p> <p>COMPLETE FEASIBILITY STUDY PROJECT AREA 2</p> <p>DEVELOP PROJECT AREA 1 AND 2 ALTERNATIVES</p> | <p>REFINE ALTERNATIVE</p> <p>DRAFT CONCEPT DESIGN REPORT</p> | <p>FINAL CONCEPT DESIGN COST-RISK-IMPACT ANALYSIS</p> <p>OPERATIONS & MAINTENANCE ANALYSIS</p> |
|--|--|--|--|



DECEMBER
2014

DECEMBER
2015



QUESTIONS / DISCUSSION