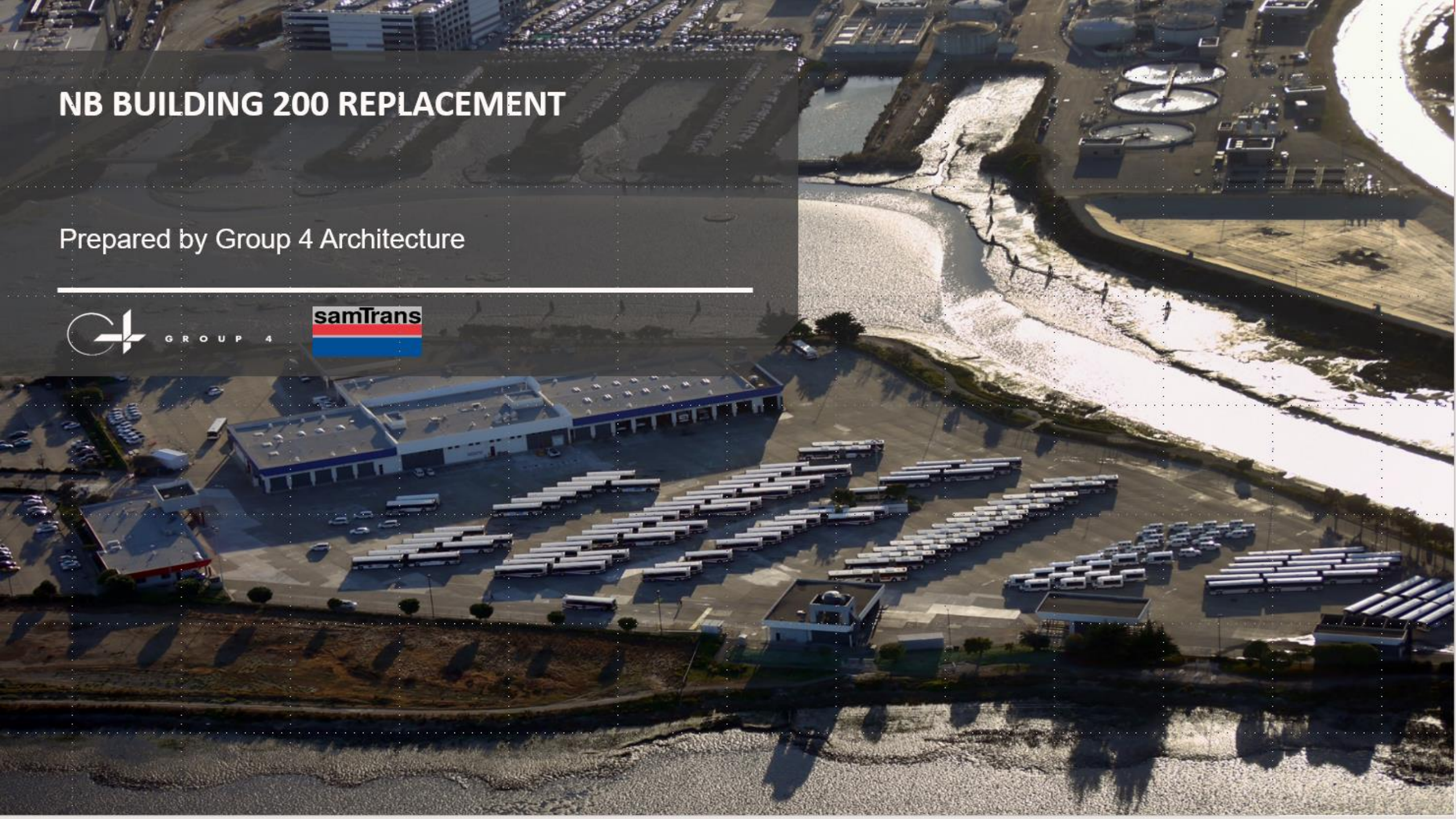
North Base Bldg. 200 Replacement Project

SamTrans Board of Directors

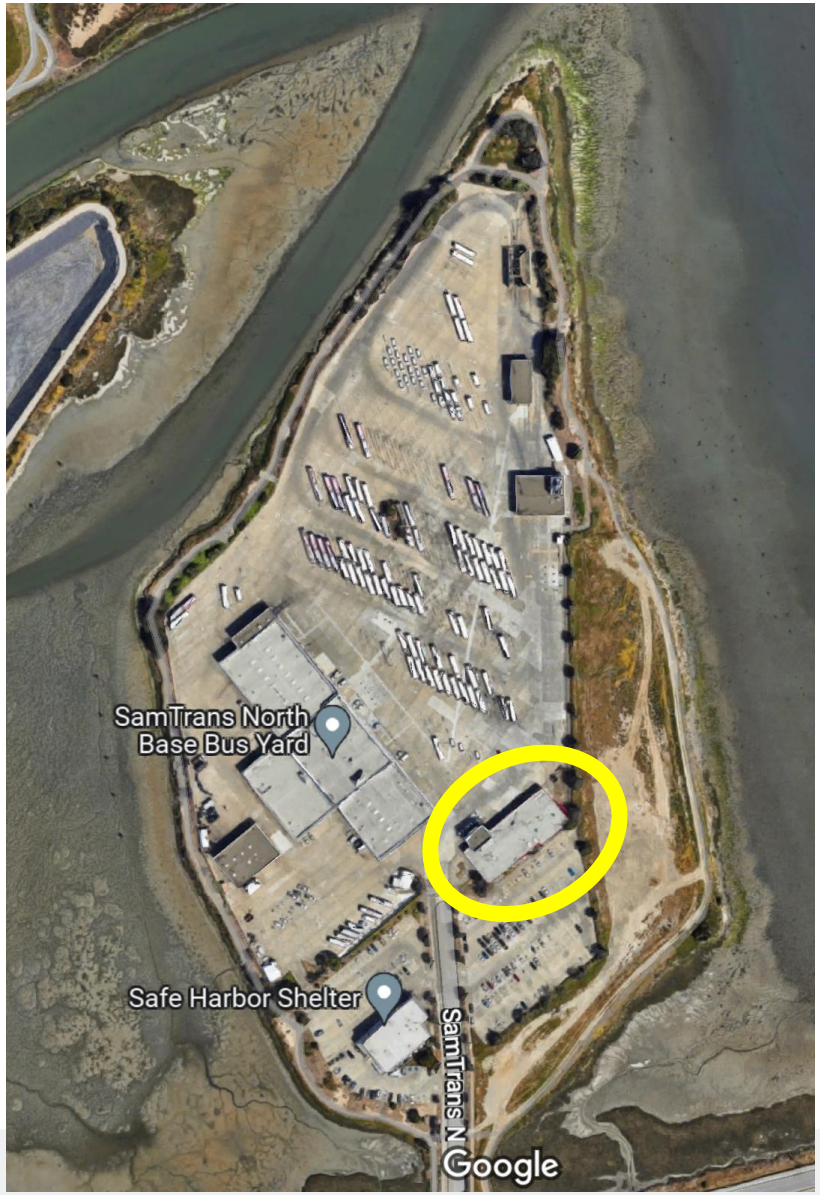
October 4, 2023

NB BUILDING 200 REPLACEMENT

Prepared by Group 4 Architecture



- Project Background
- Building: Size & Type
- Building Site: Location
- Recommendation
- Next Steps



NB Building 200 Functions

- Day-to-day bus operations –
  e.g., dispatch, radio control, vault, etc.
- Amenities and support for bus operators
- Bus Operations management offices
- Operator training space

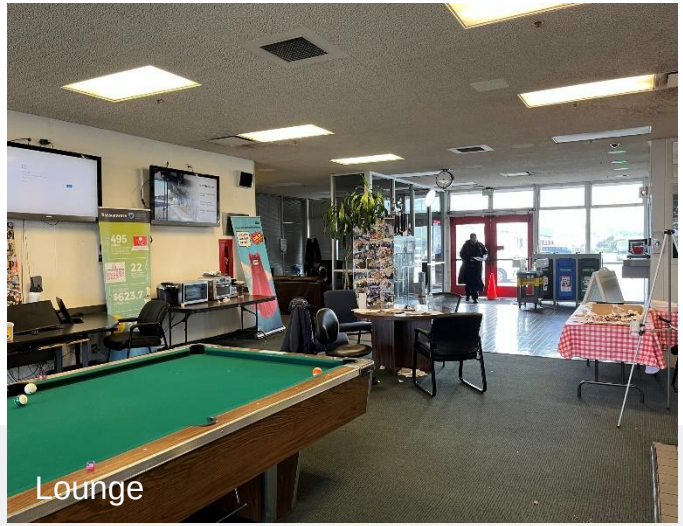
North Base Building 200 is ~10,650 square feet


Dispatch


Radio Control


Management Offices

Training Room


Lounge


Exercise Room

1976
SamTrans fixed-route bus service begins

1988
North Base Transportation Building 200 opens

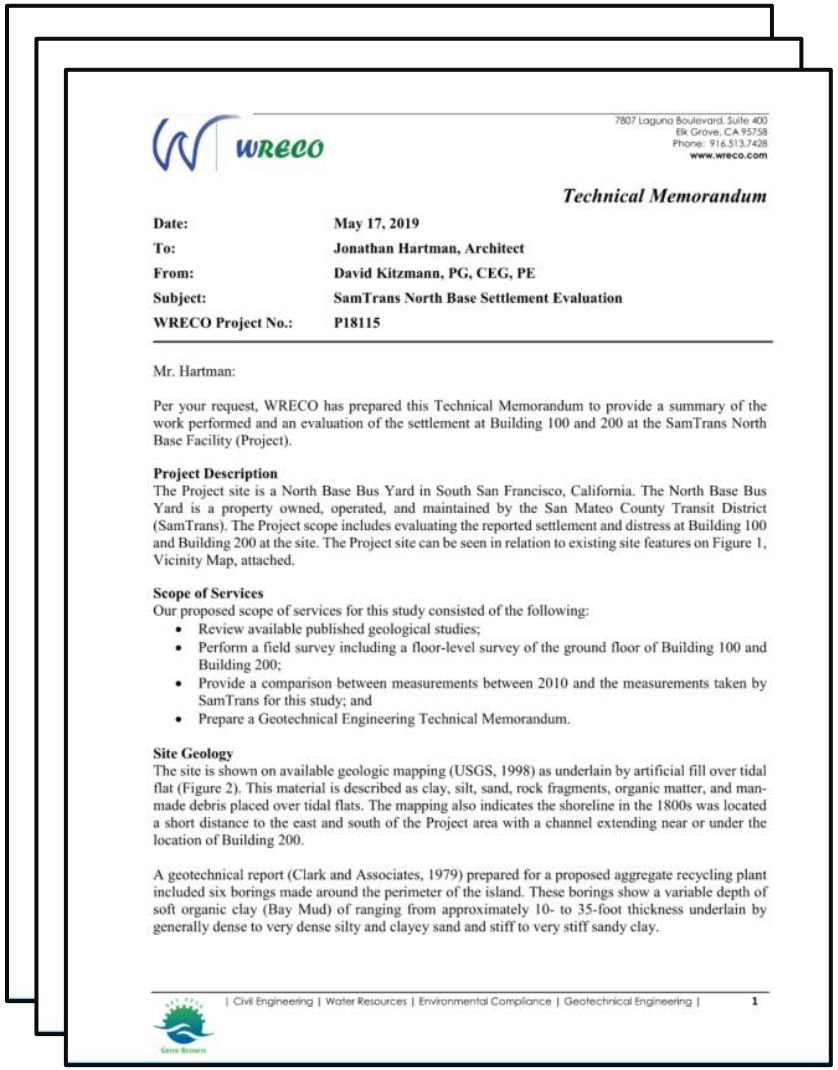
2023
Today

FUTURE
Reimagine SamTrans
- Equity
- Efficiency
- Connections

2010
Building 200 settlement first studied

Today
Building 200 increasingly tilting

Future
Building 200 functional building



WRECO

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Technical Memorandum

Date: May 17, 2019
To: Jonathan Hartman, Architect
From: David Kitzmann, PG, CEG, PE
Subject: SamTrans North Base Settlement Evaluation
WRECO Project No.: P18115

Mr. Hartman:

Per your request, WRECO has prepared this Technical Memorandum to provide a summary of the work performed and an evaluation of the settlement at Building 100 and 200 at the SamTrans North Base Facility (Project).

Project Description
The Project site is a North Base Bus Yard in South San Francisco, California. The North Base Bus Yard is a property owned, operated, and maintained by the San Mateo County Transit District (SamTrans). The Project scope includes evaluating the reported settlement and distress at Building 100 and Building 200 at the site. The Project site can be seen in relation to existing site features on Figure 1, Vicinity Map, attached.

Scope of Services
Our proposed scope of services for this study consisted of the following:

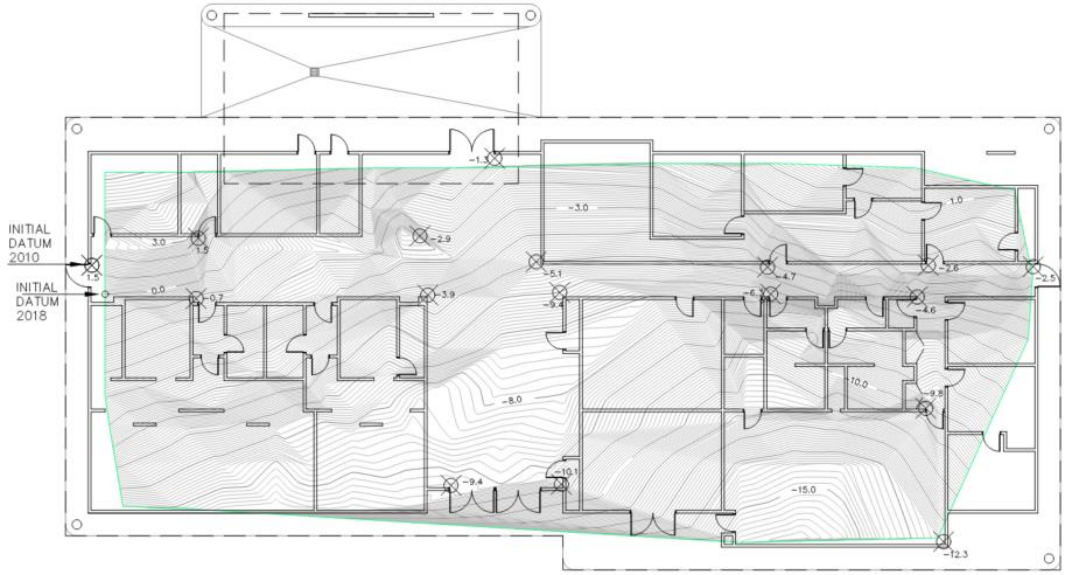
- Review available published geological studies;
- Perform a field survey including a floor-level survey of the ground floor of Building 100 and Building 200;
- Provide a comparison between measurements between 2010 and the measurements taken by SamTrans for this study; and
- Prepare a Geotechnical Engineering Technical Memorandum.

Site Geology
The site is shown on available geologic mapping (USGS, 1998) as underlain by artificial fill over tidal flat (Figure 2). This material is described as clay, silt, sand, rock fragments, organic matter, and man-made debris placed over tidal flats. The mapping also indicates the shoreline in the 1800s was located a short distance to the east and south of the Project area with a channel extending near or under the location of Building 200.

A geotechnical report (Clark and Associates, 1979) prepared for a proposed aggregate recycling plant included six borings made around the perimeter of the island. These borings show a variable depth of soft organic clay (Bay Mud) of ranging from approximately 10- to 35-foot thickness underlain by generally dense to very dense silty and clayey sand and stiff to very stiff sandy clay.

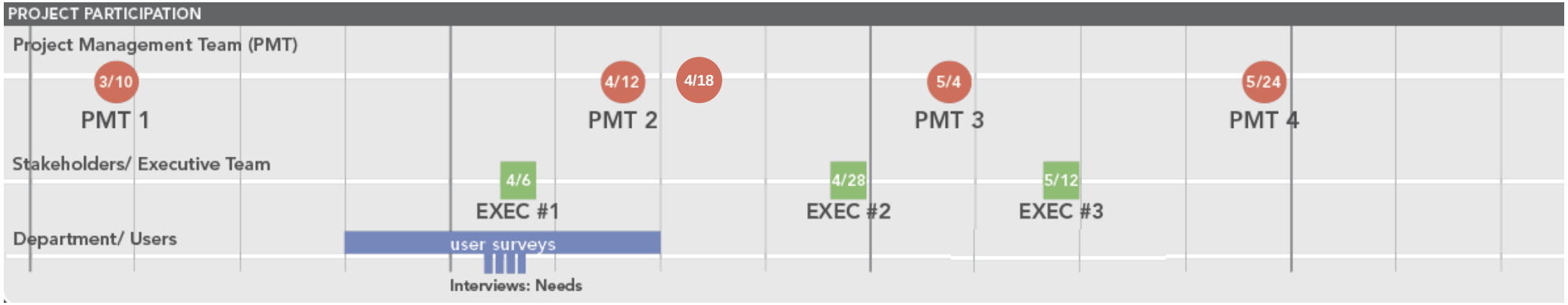
2019 North Base Settlement Evaluation

- Settlement caused by poor soil conditions
- Current Building 200 cannot be repaired cost-effectively
- Recommends replacement of Bldg. 200



Requirements Gathering

- Purpose – spaces and operational needs
- Process – March-June 2023
- Participants – Bus Operations Management; Bus Operators; other District representatives



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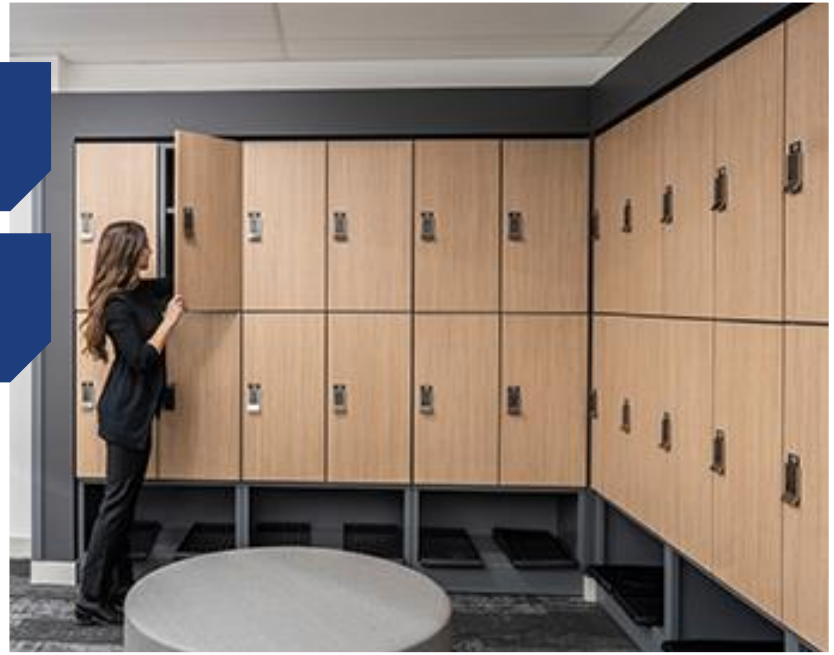
Goal: improve bus operator amenities

Goal: more collaborative work space



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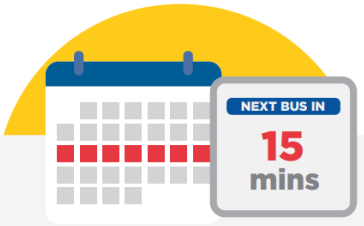
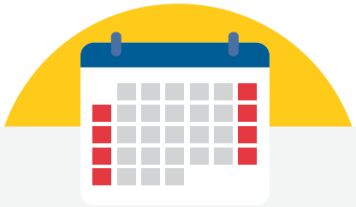
Goal: *high performance building*

Goal: *reflect District values and best practices*



More frequent service

Faster service

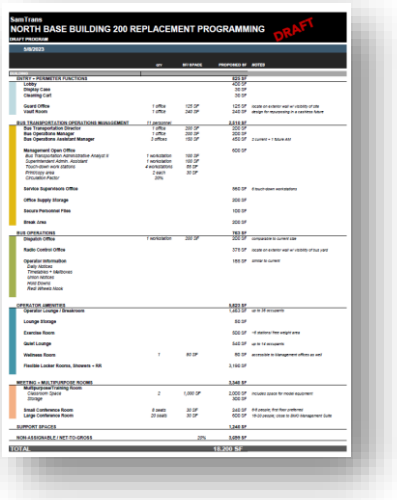


More coverage on weekends

Later night service

Goal: ***accommodate expanded future operations***

Goal: ***achievable within District resources***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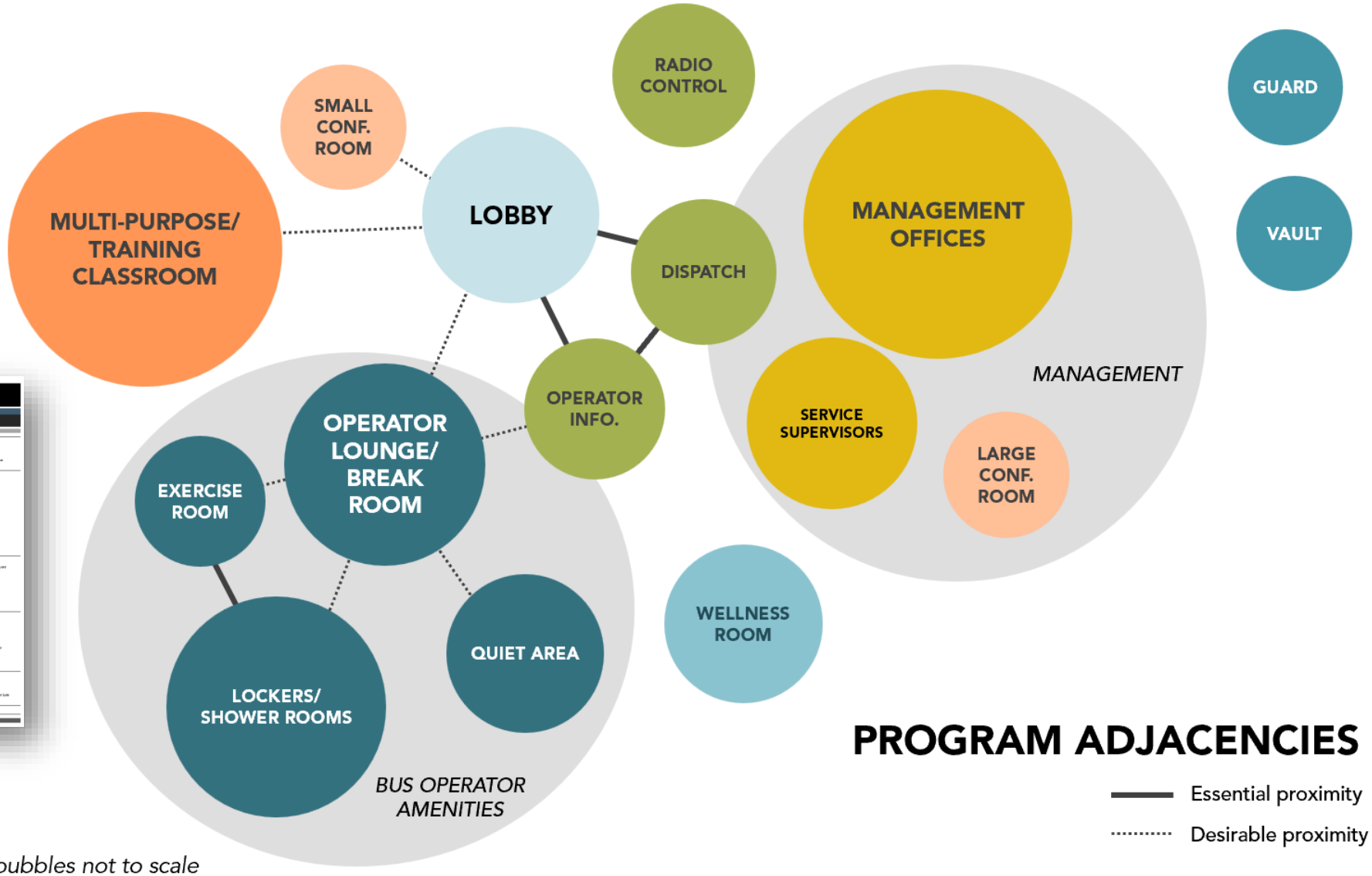
NORTH BASE BUILDING 200 REPLACEMENT PROGRAMMING
DRAFT



bubbles not to scale

PROGRAM ADJACENCIES

Essential proximity

Desirable proximity

Building Size Options

0. CURRENT BUILDING 200 PROGRAM

What does Building 200 provide today?

~10,650

square feet

1-Story

1

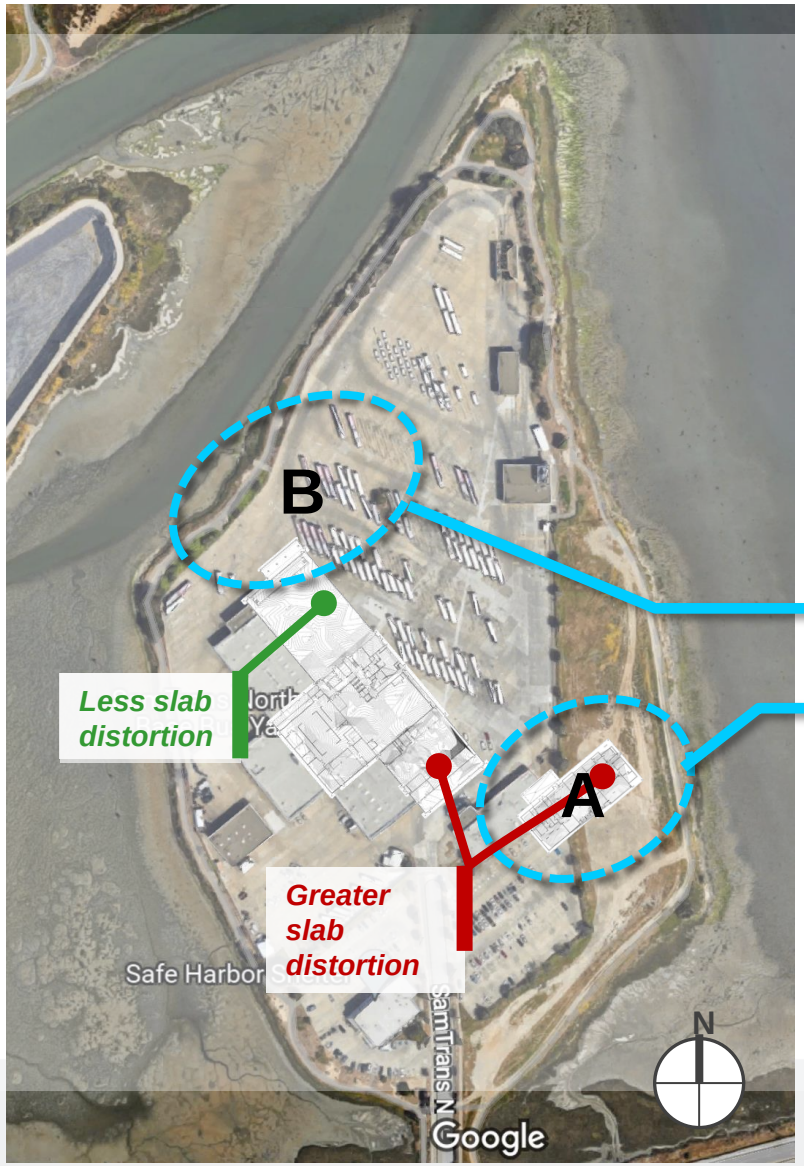
Building Size Options

0. CURRENT BUILDING 200 PROGRAM	A. CURRENT NEED/ MODERNIZED PROGRAM
What does Building 200 provide today?	What <u>should</u> NB200 provide to resolve deficiencies and modernize current operations?
~10,650 square feet	~14,400 square feet

Building Size Options

0. CURRENT BUILDING 200 PROGRAM	A. CURRENT NEED/ MODERNIZED PROGRAM	B. READY FOR GROWTH PROGRAM
What does Building 200 provide today?	What <u>should</u> NB200 provide to resolve deficiencies and modernize current operations?	What will be needed for future expanded operations and growth?
~10,650 square feet	~14,400 square feet	~18,200 square feet
1-Story 1	*2-Story* 2 1	*2-Story* 2 1

Building Site Options



Based on 2019 No. Base Settlement Evaluation

Site B – Alternate Building 200 Site

Site A – Existing Building 200 Site

Site Study
(November 2022 – May 2023)

Evaluate suitability of two sites for Building 200 based on:

- Civil survey
- Hydrology
- Soil Condition/Quality

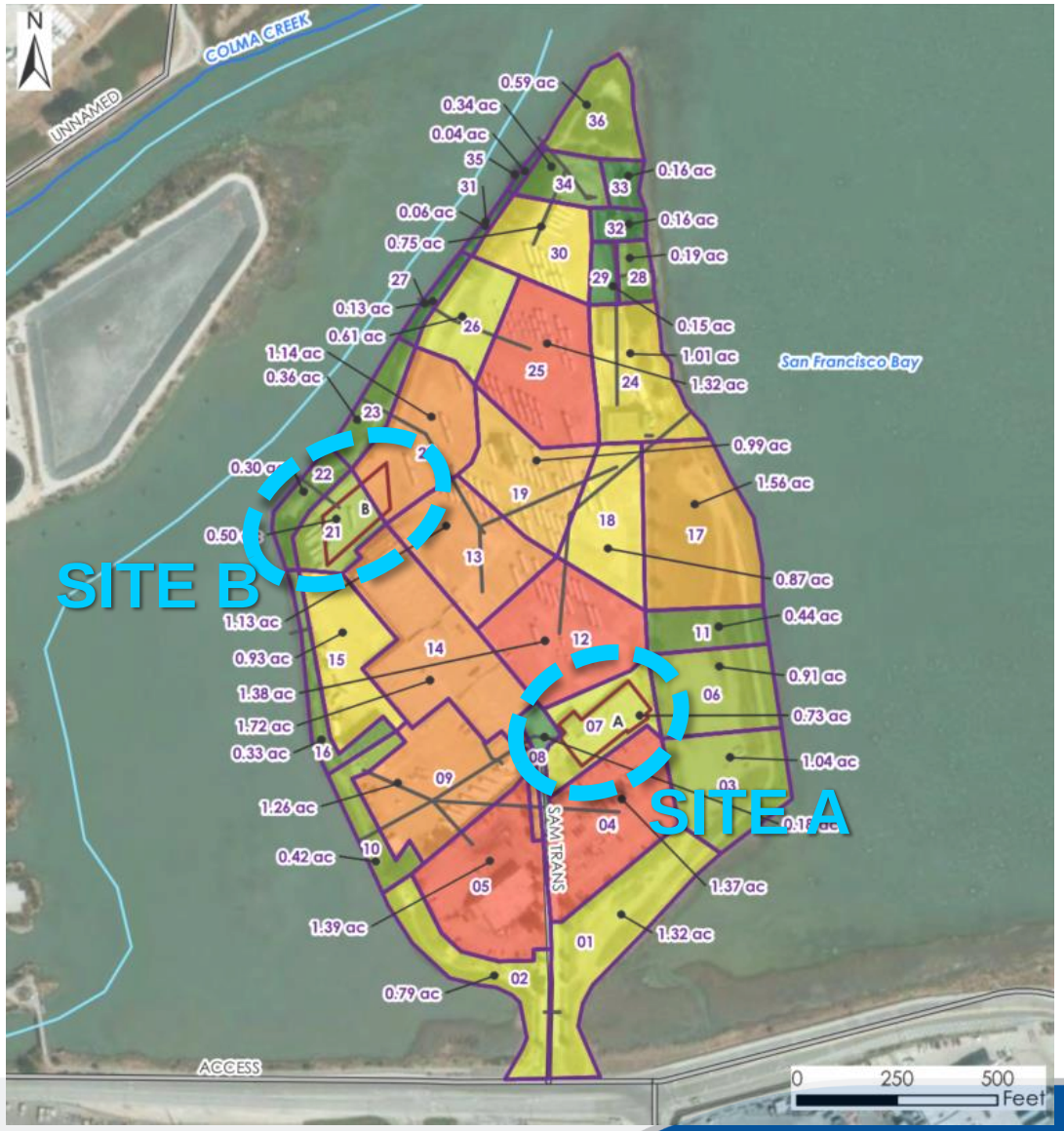
Site A – Existing Building 200 Site

Site B – Alternate Building 200 Site

Civil Survey + Hydrology

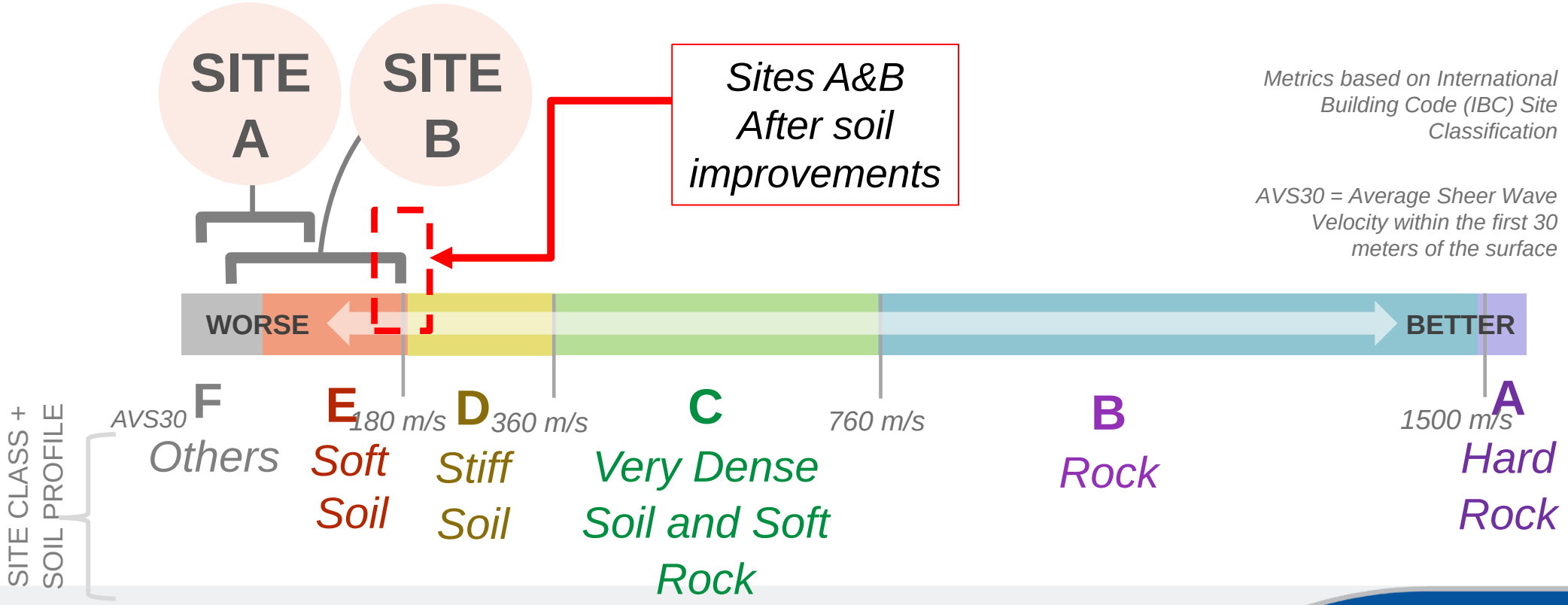
*Both **Site A** and **Site B** are similar in terms of surface grades, flooding, and projected sea level rise*

(note: new finish floor elevation to be determined in design)

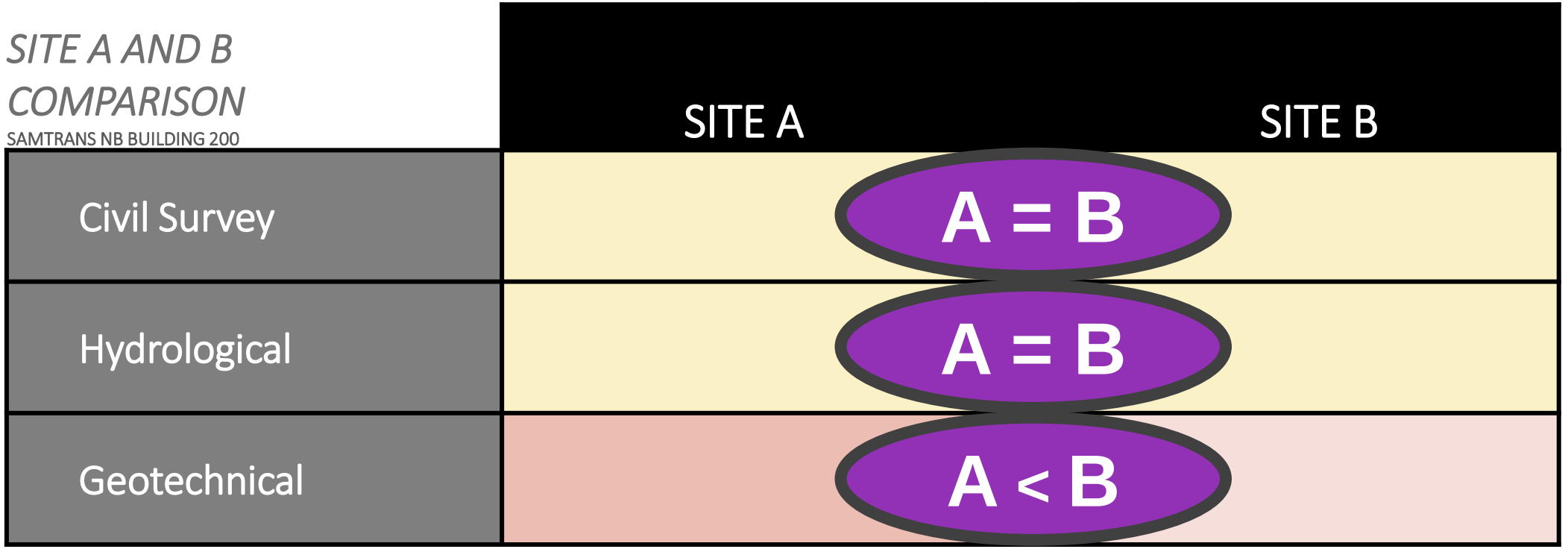


Soil Quality

*Soft soil conditions at **both sites** will require deep foundations and strengthening the soil capacity around the building*



*Better soil quality at **Site B** may require relatively less soil improvement and slightly less deep foundations than Site A*



Options for Bldg. 200

0. CURRENT BUILDING 200 PROGRAM	A. CURRENT NEED/ MODERNIZED PROGRAM	B. READY FOR GROWTH PROGRAM
~10,650 square feet	~14,400 square feet	~18,200 square feet
1-Story 	*2-Story* 	*2-Story* 
Existing Site: A	A	A
Alternate Site: B	B	B

Project Estimate Costs

- Construction Contract
- Design Consultant Contracts
- Furniture, Fixtures & Equipment
- Project Management & Project Controls
- Construction Management & Inspection
- Relocation of Bldg. 200 Occupants (for Site A)
- Escalation (3 years)

Project Cost Estimates: Bldg. 200

	0. CURRENT BUILDING 200 PROGRAM	A. CURRENT NEED/ MODERNIZED PROGRAM	B. READY FOR GROWTH PROGRAM
	~10,650 square feet	~14,400 square feet	~18,200 square feet
	1-Story 	*2-Story* 	*2-Story* 
Site A:	$27 M - $30 M	$34 M - $37 M	$39 M - $43 M
Site B:	$23 M - $26 M	$30 M - $33 M	$35 M - $39 M

Optional Enhancement

Construct Building 200 using standards for an Essential Facility (Category IV)

- Enables Bldg. 200 to be a designated Emergency Operations Center (EOC) required for emergency response
- Hardens Bldg. 200 against future environmental impacts such as sea level rise and earthquakes
- Allows SamTrans to remain operational and continue to serve the community during an environmental crisis.

Designated EOC

Category IV Construction

Immediate Occupancy

Additional Cost: Optional Enhancement

- Site A: +$3.0 million
- Site B: +$2.4 million

Project Cost Estimates: Bldg. 200 as an Essential Facility

	0. CURRENT BUILDING 200 PROGRAM	A. CURRENT NEED/ MODERNIZED PROGRAM	B. READY FOR GROWTH PROGRAM
	~10,650 square feet	~14,400 square feet	~18,200 square feet
	1-Story 	*2-Story* 	*2-Story* 
Site A:	$30 M - $33 M	$36 M - $40 M	$42 M - $46 M
Site B:	$26 M - $29 M	$32 M - $36 M	$37 M - $41 M

Operational Concerns with Site B

- Safety - increased interaction between employees and moving vehicles
- Longer walking distance from parking lot to Site B could result in miss-outs where operators are more than 60 seconds late for work
- Union could ask for additional compensation for additional time to walk between the parking lot to Site B

Recommendation: Bldg. 200 as an Essential Facility

	0. CURRENT BUILDING 200 PROGRAM	A. CURRENT NEED/ MODERNIZED PROGRAM	B. READY FOR GROWTH PROGRAM
	~10,650 square feet	~14,400 square feet	~18,200 square feet
	1-Story 	*2-Story* 	*2-Story* 
		Recommendation	
Site A:	$30 M - $33 M	$36 M - $40 M	$42 M - $46 M
Site B:	$26 M - $29 M	$32 M - $36 M	$37 M - $41 M

Funding

- Initial funds for design of Bldg. 200 are included in the current Capital Budget
- Apply for grant funding opportunities although limited

North Base 200 Replacement Project Process