

# 8. APPENDICES

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# 8.1 APPENDIX A: MMRP

## Mitigations Applicable to Major Phase 1

## Implementation Status

Mitigation ID #	Mitigation Short Text	Action #	Action	EIR Mitigation Timing	IMPLEMENTATION	
					Implementation Responsibility	Major Phase Implementation Status Notes
<b>CULTURAL AND PALEONTOLOGICAL RESOURCES</b>						
M-CP-1	Archaeological Testing Program	1	The archaeological consultant shall prepare and submit to the Environmental Review Officer ("ERO") for review and approval an Archaeological Testing Plan ("ATP") and then conduct the archaeological testing program in accordance with the ATP. The program will determine the presence or absence of archaeological resources and evaluate their significance.	Prior to commencement of soil-disturbing activities	Archaeological consultant	Archaeological Testing Plan for every Sub Phase to be submitted for approval to the City Environmental Review Officer prior to any work on site.
	Re-design or data recovery program	2	Based on the archaeological testing program results, if the consultant finds the presence of significant archaeological resources, the ERO and consultants will determine if re-design or data recovery program is required.	Prior to commencement of soil-disturbing activities	Archaeological consultant	Report prepared during implementation of ATP will include determination if archaeological data recovery is appropriate.
	Archaeological Monitoring Program (AMP)	3	The ERO and consultants will determine what project activities (in most cases, any soil disturbing activities) shall be archaeologically monitored and design an Archaeological Monitoring Program.	Prior to any demolition or removal activities, and during construction at any location	Project Sponsor and Archaeological consultant, in consultation with ERO	Archaeological Monitoring Program will establish schedules for any monitoring required prior to and during construction.
	Archaeological Monitoring Program (AMP)	4	Implement an Archaeological Monitoring Program.	Prior to any demolition or removal activities, and during construction at any location	Project Sponsor and Archaeological consultant, in consultation with ERO	Implement the Archaeological Monitoring Program for any monitoring required prior to and during construction.
	Archaeological Data Recovery Plan (ADRP)	5	Conduct Archaeological Data Recovery Program in accordance with the ADRP, to preserve the significant information the archaeological resource is expected to contain.	Prior to commencement of soils disturbing or removal activities, and during construction	Project Sponsor and Archaeological consultant, in consultation with ERO	ADRP will describe how the proposed data recovery program will preserve the significant resource.
	Human Remains and Associated or Unassociated Funerary Objects	6	Notify Coroner upon discovery and make all reasonable efforts to develop agreement for the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of any remains or funerary objects.	Throughout soils-disturbing activities.	Project Sponsor, Archaeological consultant, and Contractor, in consultation with ERO	Contractor to immediately notify Coroner in the event of any funerary object discovery.
	Final Archaeological Resources Report (FARR)	7	Prepare Final Archaeological Resources Report (FARR) about any discovered resource, including the historical significance and the methods employed in the testing/monitoring/data recovery program(s).	Upon completion of Construction	Project Sponsor and Archaeological consultant, in consultation with ERO	FARR to be prepared upon completion of construction at a given site.
M-CP-3	Paleontological Resources Monitoring and Mitigation Program (PRMMP)	1	Design a Paleontological Resources Monitoring and Mitigation Program	Prior to any demolition or removal activities, and during construction at any location on YBI	Project Sponsor, Paleontological consultant, and Contractor, in consultation with ERO	Design a Paleontological Resources Monitoring and Mitigation Program for YBI.
	Paleontological Resources Monitoring and Mitigation Program (PRMMP)	2	Implement a Paleontological Resources Monitoring and Mitigation Program	Throughout soils-disturbing activities on YBI.	Project Sponsor, Paleontological consultant, and Contractor, in consultation with ERO	Implement a Paleontological Resources Monitoring and Mitigation Program for YBI
M-CP-6	Any alterations to and within Building 1's contributing landscape shall comply with Secretary's Standards	1	Ensure alterations and additions designed for Building 1's contributing landscape are consistent with the Secretary's Standards	During Design, prior to TIDA's approval of Design.	TIDA in consultation with qualified professional Preservation Architect, Architectural Historian, and/or Planner experienced with applying Secretary's Standards to adaptive reuse projects	During its design review process, TIDA to issue findings regarding landscape improvements contributing to Building 1.
M-CP-7	Any new free-standing construction west of Building 1 in its contributing landscape area shall comply with Secretary's Standards	1	Ensure design for new free-standing construction west of Building 1 in its contributing landscape areas is consistent with the Secretary's Standards	During Design, prior to TIDA's approval of Design.	TIDA in consultation with qualified professional Preservation Architect, Architectural Historian, and/or Planner experienced with applying Secretary's Standards to adaptive reuse projects	During its design review process, TIDA to issue findings regarding new structures proposed in landscape area west of Building 1.

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M-CP-9	Documentation and interpretation of the Damage Control Trainer (housed in Building 341) must occur before it is demolished. Documentation and interpretation of the Damage Control Trainer (housed in Building 341) must occur before it is demolished.	1	Prepare photographic and written documentation of the Damage Control Tower based on HABS and HAER guidelines.	Prior to any action to demolish or remove the Damage Control Tower	Project Sponsor and Architectural Historian Consultant	Following TIDA's approval of documentation, consultant to transmit it to SF History Center, TIDA, Planning Dept, and NWIC
		2	Provide a permanent display of interpretive materials concerning the history and architectural features of the Damage Control Tower	Prior to any action to demolish or remove the Damage Control Tower	TIDA to establish location(s), media, and characteristics of display. Project Sponsor and Architectural Historian Consultant to prepare display	Design interpretive display.

**TRANSPORTATION**

M-TR-1	Construction Traffic Management Plan (CTMP)	1	Develop and implement a Construction Traffic Management Plan to minimize overall disruptions and ensure overall circulation is maintained to extent possible.	Prepare CTMP and submit for approval prior to construction of the first Sub-Phase of the first Major Phase, to be updated for each subsequent Sub-Phase	Project Sponsor and their Construction Contractor(s)	Project Sponsors and their construction contractor(s) to prepare and implement CTMP, with update for each Sub-Phase. TIDA to coordinate with other City agencies. Contractors to disseminate appropriate info to employees and subcontractors.
		2	Once streets are accepted as City streets, coordinate through SFMTA's Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT), and conduct public hearing. CMTMP may be reviewed by SFMTA's Transportation Advisory Committee (TASC) to resolve internal differences.	Implement process as soon as any streets are accepted by City	Project Sponsor and their Construction Contractor(s)	Project Sponsors and their construction contractor(s) to coordinate any temporary changes with ISCOTT after streets are accepted by City.
		3	Prepare separate Transportation Management Plan and contingency plans for construction activities conducted within Caltrans right-of-way	In advance of construction activities in Caltrans right-of-way	Construction contractors and permit applicants	Construction contractors and permit applicants to coordinate with Caltrans and submit Certification Checklist forms to Caltrans when appropriate
		4	Prior to development of CTMP, coordinate plan development with other Island users, including Job Corps and Coast Guard.	Coordinate preparation of CTMP (and its updates) with other Island users.	Project Sponsor	Project Sponsors and their construction contractor(s) to coordinate transit route changes with other agencies during preparation of CTMP (and subsequent updates).
M-TR-24	Notify vendors of special requirements for STAA trucks (largest commercial shipping trucks) larger than 65 feet New Transit Only Lane only triggered by operational delays to Muni service	5	Notify vendors that STAA trucks larger than 65 feet exiting from the eastbound direction of the Bay Bridge may only use the off-ramp on the east side of YBI	When contracting with vendors	Construction contractor(s)	Construction contractor(s) to report vendor notifications to TIDA
		1	Upon installation of metering light on westbound on-ramp on east side of YBI or upon completion of 1,000 dwelling units (whichever comes first), TIMMA (TITMA) to monitor length and duration of potential queues and associated delays. Project Sponsor to provide Transit Only Lane if triggered by Muni delay impacts are observed at least 50% of the time over 6 months period during peak periods.	Commence monitoring upon installation of metering light on westbound on-ramp on east side of YBI or upon completion of 1,000 dwelling units, whichever occurs first. Continue throughout life of project.	TIMMA (formerly TITMA) to monitor. Project Sponsor and their Construction Contractor(s) to re-stripe for Transit Only Lane, if needed.	TIMMA to conduct monitoring upon trigger event and report quarterly to SFMTA, and then monthly if there are further triggers.

**NOISE**

M-NO-1a	Implement noise control measures during construction.	1	Develop and implement noise measures for each construction permit and provide monthly report on measures implemented.	For each construction permit. Construction contractors to report on noise measures implemented on a monthly basis.	Construction contractor(s)	All feasible noise control measures should be implemented.
M-NO-1a	Designate a Noise Disturbance Coordinator during construction.	1	Designate a Noise Disturbance Coordinator during construction; all construction contractors shall work with the Coordinator and post construction schedule at noise-sensitive areas nearby.	Noise Disturbance Coordinator to be available throughout all construction phases until buildout is complete.	Construction contractor(s)	Noise Disturbance Coordinator must be empowered to address noise complaints.
M-NO-1b	Identify and implement noise-reducing pile driving techniques and noise shielding and muffling devices.	1	Use noise-reducing pile driving techniques if nearby structures are subject to pile driving noise and vibration. Within 48 hours prior to such activities, notify building owners and occupants within 500 feet of project site of dates, hours, and expected duration of those activities.	During construction of each phase, if pile driving is required.	Project Sponsor to report to agencies and notify persons within 500 feet. Construction contractor(s) to identify and implement noise-reducing techniques.	Equipment used shall employ state-of-the-art noise shielding and muffling devices.
M-NO-2	Vibro-Compaction Monitoring	1	Geotech engineer to conduct pre-construction assessment of existing subsurface conditions and structural integrity of buildings within 50' subject to impact or vibro-compaction activity impacts. Further monitoring may be required	Prior to commencement of construction with impact or vibro-compaction activities.	Project Sponsor and their Geotechnical Engineer(s)	Pre-construction assessment required prior to each use of impact or vibro-compaction methods.

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M-NO-5	Mitigate traffic induced interior $L_{max}$ noise levels in homes, schools, lodging.	1	Engage acoustical consultant to recommend traffic noise mitigating acoustical insulation or other equivalent measures. Provide post-construction monitoring to verify adequacy.	Prior to completion of design and issuance of building permits for each home, school or hotel.	Project Sponsor for each home, hotel or school.	Applicable for vertical development of homes, schools and hotels.
M-NO-6	Locate noise producing facilities away from noise sensitive receptors or require appropriate noise attenuating features.	1	Locate all utility and industrial stationary noise sources away from noise sensitive receptors and provide site and noise attenuation features during design. Monitor noise levels after installation to ensure compliance.	Site and noise attenuation features to be established during design of each noise source. Monitor within 3 months of installation of each noise source.	TIDA, in consultation with SFPUC, if appropriate.	Facilities such as pump stations, electric substation equipment, etc may be such noise sources.

**AIR QUALITY**

M-AQ-1	Prepare and implement Construction Dust Control Plans	1	Incorporate all eight BAAQMD-identified construction mitigation measures into the required Construction Dust Control Plan.	Prepare and implement Dust Control Plans during each phase of site preparation and building construction.	Project Sponsors to create plan and their construction contractors to implement it.	Includes requirement to post publicly visible sign with contact info for any dust complaints.
M-AQ-2	Implement combustion emission reduction measures during construction activities.	1	Implement combustion emission reduction measures and submit quarterly reports regarding compliance through 2018 and annually thereafter.	Implement measures throughout construction and submitting quarterly and annual compliance reports.	Project Sponsors and their construction contractors.	Diesel powered generators for construction activities prohibited unless TIDA finds there are no other commercially available alternatives.
M-AQ-3	At submission of any Major Phase application, Air Quality consultant must review proposed development in that Major Phase along with existing uses and uses approved in prior Major Phases to determine whether the actual project phasing deviates materially from the representative phasing plan.	1	Review of phasing by Air Quality consultant prior to approval of each Major Phase application to confirm there will not be any additional significant impacts on any group of receptors.	Prior to submission of each Major Phase application	TIDA for horizontal construction or Planning Department for vertical construction outside Tidelands Trust Overlay Zone, and an air quality consultant.	There have been no changes in the proposed development for Major Phase 1 or existing uses; therefore, there are no potential impacts on any group of receptors for review by an Air Quality consultant.
M-AQ-4	Implement BAAQMD mitigation measures for projects that exceed construction thresholds that would be applicable to reducing PM2.5 emissions	1	Implement 13 additional construction mitigation measures to reduce construction emissions.	Implement during construction and submit quarterly reports regarding implementation.	TIDA shall require, and Project Sponsors and their construction contractors, shall implement	Measures are identified by BAAQMD as recommended for all projects regardless of whether thresholds are exceeded.

**WIND AND SHADOW**

M-WS-3	Identify measures to reduce exposure to hazardous winds.	1	At least once a year, throughout construction, Wind Consultant shall visit site and identify measures to reduce exposure to potentially hazardous winds in publically accessible areas.	Implement during construction and submit annual reports regarding implementation.	Project Sponsor to retain consultant and annual assessments are sent to TIDA, DBI and Planning. Project Sponsor and their Construction Contractor(s)	Site assessment to include design for all buildings approved or under construction.
	Identify measures to reduce exposure to hazardous winds.	2	Contractor shall develop safety plan to mitigate all wind-related risks.	Implement prior to issuance of building permit for each structure.		Object is to minimize risks from stacked materials that can be picked up by strong winds and from light structures that could be detached.
	Ensure compliance with Wind Consultant measures by conditions of approval for all construction permits. Maintain records for compliance with Wind Mitigation Measures.	3	Ensure implementation of Wind Consultant's structural measures and precautions by conditions of approval for all construction permits.	Implement prior to issuance of site and building permits.	TIDA and Planning	Project sponsors and subsequent building developers must cooperate to implement measures.
		4	TIDA shall maintain records of EIR technical memorandum, all written recommendations, reports of wind testing, and proof that mitigation measures were followed.	Implement throughout construction	TIDA	Planning will provide TIDA with all reports prepared for vertical development. TIDA shall document and maintain reports for horizontal and maintain reports for vertical.
M-WS-4	Identify and compare potential impacts of every proposed building relative to those described in EIR Wind tunnel testing is required if increased or new wind hazards are likely that will likely not be eliminated by design modifications.	1	If building design would cause new or increased wind hazard that would not be eliminated by design changes, additional wind tunnel testing may be needed.	Implement prior to approval of schematic design for every building.	Planning, Project Sponsors, Wind Consultant, and design consultants.	If wind consultant concludes building would cause increased or new wind hazard that cannot be eliminated by design modifications wind tunnel testing may be required.
		2	If wind testing is required, it shall be performed for an area at least 3 blocks wide and several blocks deep, including the test points tested in the EIR	Implement prior to approval of schematic design for every building.	Planning, Project Sponsors, Wind Consultant, and design consultants.	The goal is to cause no additional wind effects than identified by prior testing; it is not be expected that all the wind hazard(s) identified by prior testing will be eliminated.

	Maintain records for compliance with Wind Mitigation Measures.	3	TIDA shall maintain records of EIR technical memorandum, all written recommendations, reports of wind testing, and proof that mitigation measures were followed.	Implement prior to approval of schematic design for every building.	TIDA. Planning to provide copies of documentation to TIDA.	All constructed buildings must incorporate requisite design mitigations specified by wind consultant.
<b>BIOLOGICAL RESOURCES</b>						
M-BI-1a	Avoid disturbance of special-status plants on YBI	1	Qualified botanist shall conduct presence/absence survey for special-status plants in May or June prior to any construction on YBI and avoid disturbance or mortality. If not feasible, restore on site at 1:1 ratio in post-development open space.	Conduct survey in May or June prior to any construction on YBI	Project Sponsor, Qualified Botanist, and TIDA (to maintain copies of reports)	Surveys to be conducted in each construction area in May or June prior to any construction.
M-BI-1b	Conduct no activities within no-work buffer zone that could disrupt birds during breeding season.	1	Qualified biologist to conduct preconstruction surveys within 15 days prior to any work scheduled to occur February through May and within 30 days prior to any work scheduled to occur June through August 15th. No work will be allowed within buffer zones where there are active nests of protected birds until the young have fledged.	15 days prior to any work scheduled to occur February through May and within 30 days prior to any work scheduled to occur June through August 15th	Project Sponsor, Qualified Botanist, and TIDA (to maintain copies of reports)	Depending on species, input from CA Dept of Fish and Game and/or US Fish and Wildlife Service may be warranted.
M-BI-1c	Tree removal and building demo to occur during periods least likely to impact bats.	1	Prior to removal of trees or demolition of buildings, qualified bat biologist to conduct surveys for active day or night roosts. Found roosts to be made unsuitable habitat prior to tree removal or building demo and 100 foot no-disturbance buffer to be created.	Winter hibernacula and maternity roosts have overlapping sensitivity periods (only clear months are 15-Feb to 15-Apr), so survey is likely required prior to demo.	Project Sponsors, qualified bat biologist, and CDFG, if buffer is proposed to be reduced.	A reduced buffer could be provided for on a case by case basis by the bat biologist.
M-BI-1d	Off-leash dogs will be prohibited on YBI outside of designated, enclosed, off-leash dog parks. Feeding of feral cats prohibited on both islands.	1	Prepare rules, regulations, and covenants prior to each Major Phase and communicate to tenants and visitors, prior to occupation of new structures (ongoing).	Communications to tenants and visitors prior to occupation of new structures, and on-going.	Project Sponsors, TIDA and individual site developers.	All construction specs general conditions should include note that feeding of feral cats is prohibited and to include off-leash dog restriction for activities on YBI.
M-BI-1e	Employ specific noise and vibration mitigation measures during off-shore pile driving.	1	Monitor area during off-shore pile driving to ensure aquatic species are not impacted and that sound pressures 500 meters from source do not exceed 160 db. If either occurs, employ bubble curtains. In addition, 4 other mitigation measures must be employed.	During all off-shore pile driving activities	Project Sponsors and qualified marine biologist and acoustical consultant.	If marine mammals are observed within 1,000 feet of pile driving activities, allow them to exit before resuming pile driving.
M-BI-2a	Shoreline activities generally restricted to terrestrial and upper intertidal zones.	1	Minimize to extent possible activities in lower intertidal and near subtidal zones. No disturbance of rocks in lower intertidal zone outside of planned dredging areas.	During any construction conducted in and around the islands' rocky shoreline.	Project Sponsors, qualified marine biologist, and CDFG as necessary to establish limitations on construction activities.	Related activities include geotech stabilization, shoreline heightening and repair, stormwater outfall improvements, and other shoreline activities.
M-BI-2b	Shoreline work limited to period between 1-Mar and 30-Nov	1	Construction on shoreline limited to between 1-Mar and 30-Nov to avoid disturbing herring spawning.	During any construction conducted in and around the islands' rocky shoreline.	Project Sponsors and qualified marine biologist	Related activities include geotech stabilization, shoreline heightening and repair, stormwater outfall improvements, and other shoreline activities.
M-BI-2c	Survey all eelgrass beds	1	Within 3-6 months of start of construction that may affect Submerged Aquatic Vegetation (SAV) beds, and not less than every 2 years thereafter, survey all eelgrass beds.	Within 3-6 months of start of any construction in SAV areas and not less than every 2 years thereafter.	Project Sponsors and qualified marine biologist and construction contractors.	Eelgrass beds occur in subtidal areas along northeast and east sides of TI and in Clipper Cove, adjacent to northeast shore of YBI.
	Conduct mandatory eelgrass bed training.	2	Conduct eelgrass bed environmental training for all TIDA staff in charge of overseeing construction, all contractors and subcontractors working or transporting materials or operating boats in Bay waters within 1/4 mile of TI/YBI.	Prior to any activities in SAV areas.	Project Sponsors and qualified marine biologist and construction contractors.	Eelgrass beds occur in subtidal areas along northeast and east sides of TI and in Clipper Cove, adjacent to northeast shore of YBI.
M-BI-4a	Ensure building design minimizes potential for bird strikes.	1	Incorporate design features into building facades and place new landscapes in such a way as to obscure habitat reflections, create perception of an unobstructed flight path, and minimize fatal collisions by birds.	Prior to issuance of building and site permits.	Project Sponsors, qualified biologists, architects, and building managers.	Design for vertical structures and their immediately adjacent landscaping; typically by vertical developers (also includes Ferry Shelter).
	Ensure lighting design minimizes potential for bird strikes.	2	Incorporate lighting design features into buildings and landscapes in such a way as to reduce lighting usage, change light direction, and contain light.	Prior to issuance of building and site permits.	TIDA and Planning	Planning responsible for compliance on non-Trust property and TIDA responsible for compliance on Trust property.
	Minimize rooftop antennas and equipment.	3	Minimize number of and co-locate rooftop antennas and other rooftop equipment and do not include guy wires on monopole structures or antennas.	Prior to issuance of building and site permits.	TIDA and Planning	To be addressed for every building permit
	Educating Residents and Occupants	4	Provide educational materials to building tenants and occupants, hotel guests, and residents encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods.	Prior to issuance of building permits. Educational materials to be reviewed and approved by TIDA prior to occupancy.	Planning for permits on non-Trust property and TIDA for permits on Trust property.	To be addressed for every building permit
	Documentation of Bird Strike mitigations	5	Building developers to provide written descriptions of measures and features to address potential bird impacts and biologist to prepare recommendations and memoranda to ensure potential for bird strikes is minimized.	Throughout vertical development	TIDA and Planning	TIDA to maintain records.

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M-BI-8 (Variant B3 - Survey construction area for southern breakwater eelgrass beds. constructed in later phase)	1	Survey construction area prior to initiation of any construction activities for the southern breakwater. If eelgrass has established beds that could be impacted by breakwater construction, restoration of offsite eelgrass beds or transplantation and establishment of offsite or onsite eelgrass beds with replacement ratio of 3:1 will be required.	Prior to initiation of southern breakwater in a later phase.	Project Sponsors, construction contractors, marine biologist, in consultation with ACOE, BCDC, NMFS, and CDFG where necessary.	If eelgrass beds are found, construction to be restricted to 1-Mar through 30-Nov with restoration or offsite eelgrass beds to occur immediately after breakwater construction.
Survey construction area for protected fish species, and marine mammals.	2	Survey construction area prior to initiation of any construction activities for the southern breakwater. If breakwater could impact utilization of area by protected species, work to be conducted in manner to not adversely effect them.	Prior to initiation of southern breakwater in a later phase.	Project Sponsors, construction contractors, marine biologist, in consultation with NMFS.	Survey construction area prior to initiation of any construction activities for the southern breakwater.
M-BI-9 (Variant C2 - Design and construct water supplement intake pipe to prevent firefighting water impingement of fish and supply with Bay water)	1	If firefighting water will be supplemented by Bay water, submit the final design of the Bay water intake pipe to NMF, CDFG, CA Water Board/SF, and BCDC.	Prior to issuance of permits to construct the bay water intake pipe.	TIDA and Project Sponsor's qualified marine biologist and engineering consultants.	One option is installing the pipe inside a screened subsea vault large enough to reduce water suction to acceptable levels.

**GEOLOGY AND SOILS**

M-GE-5	1	Locate new improvements at YBI a minimum of 100 feet from top of existing slope along Macalla Road.	Locate new improvements at YBI a minimum of 100 feet from top of existing slope along Macalla Road unless a site-specific geotech slope stability evaluation indicates a static factor of safety of 1.5 and a seismic factor of safety of 1.1 will be implemented.	Prior to issuance of building permit for improvements or structures along Macalla Road.	Project Sponsor and geotech consultant	If geotech recommendations regarding slope stability have been identified for any YBI site that is within 100 feet from top of existing slope along Macalla Road, they must be incorporated into building specs.
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**HAZARDS AND HAZARDOUS MATERIALS**

M-HZ-1	1	Implement a Soil and Groundwater Management Plan (SGMP)	Construction specs must include implementation of SGMP prepared by qualified environmental consulting firm and reviewed and agreed to by DTSC and RWQCB.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	If additional remediation is necessary to meet proposed land use, it must be completed as directed by the responsible agency, DTSC or RWQCB, prior to commencement of construction activities.
	2	SGMP: Soil Management Requirements	Comply with protocols for stockpiling, sampling, and transporting soil generated from on-site activities and for soil imported to the site for placement.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	Protocols address stockpiling, on-site reuse, transport and disposal, and importation.
	3	SGMP: Groundwater Management Requirements	Comply with protocols for conducting dewatering activities and sampling and analysis requirements for groundwater extracted during dewatering activities.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	Protocols address on-site reuse, discharge, pre-discharge treatment, and off-site transport.
	4	SGMP: Unknown contaminant/hazard contingency plan	Comply with contingency plan procedures in the event that unanticipated subsurface hazards or hazardous material releases are discovered during construction.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	Protocols address identifying potential contaminants, what to do if underground storage tank is encountered, emergency contact procedures, site controls and security procedures, sampling and analysis, and interim removal work.

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M-HZ-8	Incorporate BMPs into construction specs	1	BMPs must be incorporated to minimize potential negative effects to groundwater and soils.	Prior to initiation of construction activities throughout construction.	Project Sponsors and their construction contractors.	BMPs to include handling of chemical products, fueling, containment of grease and oils, and disposal of fuel and chemical containers.
M-HZ-10	Vapor Barriers for enclosed structures within IR Sites 21 or 24	1	If vapor barriers are necessary, building plans must include DTSC-approved vapor barriers beneath foundation.	Prior to issuance of a building permit for construction in IR Sites 21 and 24	Project Sponsors for buildings in IR Sites 21 and 24 and their construction contractors, in consultation with DTSC	Required prior to construction in IR Sites 21 and 24.
M-HZ-13	Voluntary Clean-Up Agreement (VCA) prior to reopening the presently closed elementary school	1	Prior to reopening the elementary school for elementary school use, TIDA or SFUSD shall enter into VCA with DTSC's School Property Evaluation and Cleanup Division.	Prior to reopening elementary school for elementary school use	TIDA or SFUSD to prepare and negotiate a VCA with DTSC	Site is near boundaries of Major Phase 4
I-GHG-1	Consider implementation of measures to reduce construction-related greenhouse gas (GHG) emissions	1	BAAQMD Guidance encourages Lead Agencies to incorporate best management practices for purposes of reducing construction-related GHG emissions.	Throughout construction	Project Sponsors and their construction contractors.	Measures to be considered include at least following %'s: use of alternatively fueled construction equipment for 15% of fleet, use of local building materials for 10% of construction materials, and recycle or reuse of 50% of construction and demo waste.

**IMPROVEMENTS**

I-RE-3a	If artificial turf is proposed, use latest SFRPD criteria at time of implementation	1	If used, design and build artificial turf fields using latest SFRPD criteria at time of implementation, including City's purchasing criteria	Prior to and during construction of recreational fields	Project Sponsors for any fields proposing artificial turf	TIDA to ensure appropriate materials are installed
I-RE-3b	If artificial turf is proposed, develop signage about hand washing before and after use and proper wound care.	1	If used, develop signage to educate athletes about importance of washing hands before and after field use and proper wound care for turf-related injuries	Signage to be installed prior to opening and maintained during operations	Project Sponsors in consultation with City Fields Foundation and SFDPH	TIDA to ensure signage is installed and maintained
I-RE-3c	If artificial turf is used develop air quality monitoring program for the turf fields.	1	If used, develop air quality monitoring program using methodology developed by Office of Environmental Health Hazard Assessment or US EPA.	During operation of recreational fields	Project Sponsors and air quality monitoring consultant in consultation with City Fields Foundation and SFDPH	Monitoring reports submitted to TIDA and SFDPH
M-NO-4	Operator of ferry service to ensure that its operations do not exceed SF Land Use Compatibility Guidelines for Community Noise standards	1	Ferry service operator to retain acoustical consultant to prepare a Ferry Terminal Noise Reduction Plan and comply with guidelines including reducing propulsion engine power to low when approaching and departing the terminal.	Prior to Ferry Terminal operation.	Ferry service operator	Implement prior to ferry service operation.
M-AQ-5	Ferries to meet CA Air Resources Board regulations	1	Ferry service must meet CARB regs and be equipped with diesel particulate filters or alternative technology to reduce diesel particulate emissions.	Prior to vessel selection or award of ferry service contract	WETA and WETA's ferry operator(s)	Implement prior to vessel selection or award of ferry service contract.
M-BI-4b	Implement operational adjustments to minimize impacts to rafting waterbirds	1	Ferry service to operate in reduced numbers and slower speeds during Dec and Jan or, to extent possible, maintain a buffer zone of 250 meters from areas of high-use by rafting waterbirds	During ferry operations in December and January each year.	WETA's ferry operator(s)	Implement during ferry operations in December and January each year.

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# 8.2 APPENDIX B: SCHEDULE OF PERFORMANCE

## EXHIBIT JJ SCHEDULE OF PERFORMANCE

Major Phase	Sub-Phase	Block	Parks & Open Space <sup>1/</sup>	Application Outside Date <sup>2/</sup>	Commencement Outside Date <sup>2/</sup>	1/13/2015	
						Completion Outside Date <sup>2/</sup>	
1	1-Y-A	1Y-2Y-3Y		2015	2017	2028	
			YBI Hilltop Park 1	2015	2017	2019	
			YBI Hilltop Park 2		2020	2021	
				YBI Open Space / HMP 1		2020	2022
	1-A	B2-B3-M1		2017	2019	2021	
			Eastside Commons 1		2022	2023	
			Clipper Cove Promenade 2		2022	2023	
	1-B	B1		2016	2018	2020	
			Building 1 Plaza		2021	2022	
			Marina Plaza		2021	2022	
				Clipper Cove Promenade 1		2021	2022
	1-C	C1-C2		2015	2017	2019	
			Cityside Waterfront Park 1		2020	2021	
				Cultural Park		2020	2021
	1-D	IC1-IC4		2018	2020	2022	
			Eastside Commons 2		2023	2024	
	1-E	C3		2019	2021	2023	
			Cityside Waterfront Park 2		2024	2025	
	1-F	E1-E2		2020	2022	2024	
			Urban Farm 1		2026	2027	
			Eastside Park 1		2025	2026	
			Eastside Commons 3		2025	2026	
1-Y-B	4Y		2021	2023	2025		
		YBI Beach Park		2026	2027		
			YBI Open Space / HMP 2		2026	2028	
2	2-A	E3-E4		2021	2023	2025	
			Sailing Center Pad		2025	2025	
			Eastside Park 2		2026	2027	
				Eastside Commons 4		2026	2027
				Eastern Shoreline Park 1		2026	2027
				Clipper Cove Promenade 3		2026	2027
	2-B	C4		2022	2024	2026	
			Cityside Waterfront Park 3		2027	2028	
	2-C	E5-E6		2023	2025	2027	
			Eastside Park 3		2028	2029	
				Eastside Commons 5		2028	2029
				Eastern Shoreline Park 2		2028	2029
				Pier 1		2029	2030
3	3-A	E7-E8		2024	2026	2028	
			Eastside Park 4		2024	2028	
			Eastside Commons 6		2029	2030	
				Eastern Shoreline Park 3		2029	2030
	3-B	C12-C13		2025	2027	2029	
			Urban Farm 2		2031	2032	
	3-C	IC1-IC4		2026	2028	2033	
4	4-A	C5		2027	2029	2031	
			Cityside Waterfront Park 4		2032	2033	
			Sports Park		2033	2034	
	4-B	C10-C11		2028	2030	2032	
			Urban Farm 3		2034	2035	
	4-C	C6		2029	2031	2033	
			Cityside Waterfront Park 5		2034	2035	
				Urban Farm 4		2035	2036
	4-D	C7-C8-C9		2030	2032	2034	
			Cityside Waterfront Park 6		2035	2036	
				Northern Shoreline Park / The Wilds / Environmental Center Pad		2036	2037

## SCHEDULE OF PERFORMANCE

Community Facility	Obligation	1/13/2015			
		Building Permit / Trigger <sup>3/</sup>	Application Outside Date <sup>4/</sup>	Commencement Outside Date <sup>4/</sup>	Completion Outside Date <sup>4/</sup>
		A	B	C	D
Waterfront Plaza / Ferry Terminal Phase 1	Facility	100 du	+6mo	+12mo	+36mo
Police / Fire Station	Facility	2,500 du	+6mo	+12mo	+24mo
Retail - Final Grocery Store (15,000sf)	Facility	5,000 du	+6mo	+12mo	+24mo
Ferry Terminal Phase 2	Facility	As mutually agreed by WETA, Developer, and TIDA, after engaging in a meet and confer process described in the MOU between TIDA and WETA.			
WWTP / Recycled Water Plant / PUC 4-6 acres	Developable Pad	See PUC / TIDA WWTP MOA for timing of pad delivery.			
Sailing Center Pad	Developable Pad	Developer shall use commercially reasonable efforts to provide the Sailing Center Pad earlier if the Authority requests it and if the Treasure Island Sailing Center provides reasonable evidence that it will be ready to proceed with construction of the Sailing Center building at that earlier date.			
Environmental Center Pad	Developable Pad	Developer shall deliver the Environmental Center Pad commensurate with improvements for The Northern Shoreline Park and The Wilds			
Pier 1 / Eastern Shoreline Park 2	Improvements	Construction of these improvements may be deferred if the area is still needed for barging operations related to importing material for the site. In no case will the Completion Outside Date for these improvements be later than the Completion Outside Date of the last Sub-Phase.			
Buses for East Bay Service	Rolling Stock	Nine (9) Buses for East Bay Bus Service. First five (5) buses at inception of service, remaining four busses no earlier than the occupancy of the 5,000th residential unit.			
On -Island Shuttle Buses	Rolling Stock	Four (4) Shuttle Buses. Up to two (2) buses will be provided when the service initially begins, but no earlier than the occupancy of the three thousandth (3000th) unit, subject to the meet and confer process described in Exhibit N, Transportation Plan Obligations. The remaining two (2) buses will be provided as needed based on service schedules.			
Bicycle Lending Library	Rolling Stock	Purchase of bicycles and equipment to establish the bicycle lending library up to a maximum expenditure of \$110,000. Must be completed no later than the occupancy of the 1,000 residential unit.			

Financial Obligation	Obligation	Mechanism
Open Space Annual O&M Subsidy	\$14.3 MM (NPV)	Max \$1.5mil first 5 yrs, \$3 mil per yr from Yr 6, subject to need per annual operating budget. See Financing Plan for amounts and schedule.
Transportation Annual Operating Subsidy	\$30 MM (NPV)	Max \$4 mil per year, subject to need per annual operating budget. See DDA for amounts and schedule.
Additional Transportation Subsidy	\$5 MM max	Five annual consecutive installments (max \$1 mil per year) after the first certificate of occupancy (whether temp or final) has been issued for the 4,000th dwelling unit on the Project Site, payable within 90 days after request of SFCTA if transit report shows residential transit mode share is 50% or less.
Transportation Capital Contributions	\$1.8 MM (NPV)	Used to purchase up to six (6) busses. Per-bus subsidy: the lesser of 20% of the cost of a Muni bus, or \$300,000.
Community Center Space(s) Subsidy	\$9.5 MM (NPV)	Space or subsidy determination made at Major Phase Approval. Max \$2.375 mil each Major Phase - subject to approved budget and program description.
Childcare Facility Subsidy	\$2.5M (NPV)	Space or funding no later than the first approved Sub-Phase within Major Phase Three or 18 months before the existing facility is no longer operational due to development activity, whichever comes first.
Affordable Housing Subsidy	\$98 MM max; \$73.5 MM baseline	\$17,500 per market rate unit at each lot sale. Trueups at 50% of TI land acreage make-up to 2,100 units and at 4,200 units land sales, credit for any payment made at 2,100 unit true-up. See Housing Plan for amounts and schedule.
School Improvement Payment	\$5 MM (NPV)	Payment due at the start of refurbishment work on the school grounds for purposes of opening a K-8 school. See DDA for amounts and schedule.
Ramps / Viaduct SFCTA Soft Cost Reimbursement	\$10 MM (NPV)	Annual schedule of payments. See TIDA / SFCTA MOA 3rd Amendment for amounts and schedule.
Import Fill	\$1 MM	Payment due upon removal from stockpile at rate of \$3.50 per CY or for any remaining in stockpile after 12/31/2015 in 3 equal annual installments. See TIDA / D.A. McCosker Agreement.

<sup>1/</sup> Horizontal obligations only, no vertical improvement or rehabilitation except as defined in Open Space Plan

<sup>2/</sup> All dates are subject to navy's environmental remediation efforts provided in the Navy MOA and land transfers from Navy and TIDA

<sup>3/</sup> Community Facility obligation is triggered by number of total building permits issued for residential dwelling units (shown in table above)

<sup>4/</sup> Timeframes are additive: Completion Outside Date = Date of Trigger (A) + (B) + (C) + (D)

# 8.3 APPENDIX C: MAJOR PHASE I HOUSING DATA TABLE

Major Phase	1																AUTHORITY UNITS	
Sub-Phase	YBI																Target	
Block	YBI-1		Market Rate Units														Change to Infrastructure	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Location?	Infrastructure Completion Date
1		5.64	Townhome	35'	35'	21.81	123	117	6	For Sale								
2		0.95	Townhome	35'	35'	15.78	15	14	1	For Sale								
3																		
4																		
5																		
Block Subtotal		6.59				20.94	138	131	7									

Major Phase	1																AUTHORITY UNITS	
Sub-Phase	YBI																Target	
Block	YBI-3		Market Rate Units														Change to Infrastructure	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Location?	Infrastructure Completion Date
1		1.30	Townhome	35'	35'	16.15	21	20	1	For Sale								
2																		
3																		
4																		
5																		
Block Subtotal		1.3				16.15	21	20	1									

**PROJECT SUMMARY**

Major Phase	1																AUTHORITY UNITS	
Sub-Phase	YBI																Target	
Block	YBI-4		Market Rate Units														Change to Infrastructure	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Location?	Infrastructure Completion Date
1		1.54	Townhome	35'	35'	40.91	63	60	3	For Sale								
2		3.80	Mid-Rise	35'	35'	20.53	78	74	4	For Sale								
3																		
4																		
5																		
Block Subtotal		5.34				26.40	141	134	7									

Major Phase	1																AUTHORITY UNITS	
Sub-Phase	1A																Target	
Block	M1		Market Rate Units														Change to Infrastructure	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Location?	Infrastructure Completion Date
1		0.39	Low Rise	65'	65'	153.85	60	51	9	Rental								
2		0.38	Tower	315'	315'	694.74	264	264	0	For Sale								
3		0.69	Mid-Rise	240'	65'	97.10	67	60	7	For Sale								
4		0.71	Low Rise	125'	65'	100.00	71	64	7	For Sale								
5																		
Block Subtotal		2.17				212.90	462	439	23									

Major Phase	1																	
Sub-Phase	1A																	
Block	IC4																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1	Authority	0.87																
2		0.75	Tower	450'	450'	332.24	250	250	0	For Sale								
3																		
4																		
5																		
Block Subtotal		1.619971				154.32	250	250	0									

Major Phase	1																	
Sub-Phase	1A																	
Block	B2																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		0.55	Low Rise	50'	50'	43.34	24	21	3	For Sale								
2																		
3																		
4																		
5																		
Block Subtotal		0.55				43.34	24	21	3									

Major Phase	1																	
Sub-Phase	1A																	
Block	B3																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		0.89	Low Rise	50'	50'	40.63	36	32	4	For Sale								
2																		
3																		
4																		
5																		
Block Subtotal		0.886057				40.63	36	32	4									

Major Phase	1																	
Sub-Phase	1A																	
Block	IC3																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		0.54	Low Rise	350'	65'	74.07	40	36	4	For Sale								
2																		
3																		
4																		
5																		
Block Subtotal		0.54				74.07	40	36	4									

Major Phase	1																	
Sub-Phase	1C																	
Block	C1																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		1.60	Tower	650'	650'	256.25	410	410	0	For Sale								
2																		
3																		
4																		
5																		
Block Subtotal		1.6				256.25	410	410	0									

Major Phase	1																	
Sub-Phase	1C																	
Block	C2																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		1.23	Tower	450'	450'	173.54	214	203	11	For Sale								
2		1.22	Mid-Rise	70'	70'	69.92	85	77	8	For Sale								
3		1.16	Low Rise	60'	60'	62.16	72	65	7	For Sale								
4		0.72	Tower	240'	240'	163.05	117	117	0	For Sale								
5																		
Block Subtotal		4.32				112.84	488	462	26									

Major Phase	1																	
Sub-Phase	1D																	
Block	IC1																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		0.52	Low Rise	350'	65'	126.40	66	57	9	Rental								
2		0.63	Mid-Rise	350'	65'	145.30	92	80	12	Rental								
3		0.78	Tower	350'	65'	96.09	75	75	0	For Sale								
4																		
5																		
Block Subtotal		1.94				120.36	233	212	21									

Major Phase	1																	
Sub-Phase	1D																	
Block	IC2																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		0.68	Tower	350'	65'	145.99	99	86	13	Rental								
2	Authority	0.42																
3		0.49	Low Rise	350'	65'	66.79	33	30	3	For Sale								
4																		
5																		
Block Subtotal		1.59				83.12	132	116	16									

Major Phase	1																	
Sub-Phase	1E																	
Block	C3																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1	Authority	0.98																
2	Authority	0.89																
3		0.52	Townhome	40'	40'	36.70	19	19	0	For Sale								
4		0.67	Low Rise	60'	60'	74.65	50	44	6	For Sale								
5		1.00	Tower	240'	240'	177.42	178	169	9	For Sale								
Block Subtotal		4.07				60.73	247	232	15									

Major Phase	1																	
Sub-Phase	1F																	
Block	E1																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		1.23	Low Rise	240'	65'	86.72	107	97	10	For Sale								
2	Authority	1.16															0	
4																		
5																		
Block Subtotal		2.40				44.61	107	97	10									

Major Phase	1																	
Sub-Phase	1F																	
Block	E2																	
ALL LOTS			Market Rate Units													AUTHORITY UNITS		
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
1		0.67	Townhome	240'	35'	32.94	22	22	0	For Sale								
2		0.83	Tower	240'	240'	177.35	148	140	8	For Sale								
	Authority	0.71																
4	Authority	0.77																
5		0.65	Low Rise	240'	65'	80.17	52	49	3	For Sale								
Block Subtotal		3.63				61.09	222	211	11									

	Total Residential Acreage	Total Authority Residential Acreage	Total Market Rate Residential Acreage	Total Developer Residential Units	Number Mkt Rt Units (For Sale)	Number Incl Units (For Sale)	Number Mkt Rt Units (Rental)	Number Incl Units (Rental)	Number Incl Units @ 60%	Number Incl Units @ 80%	Number Incl Units @ 90%	Number Incl Units @ 100%	Number Incl Units @ 110%	Number Incl Units @ 120%
Total for all Prior Approved Major Phases / Sub-Phases	0	0	0		0									
Total for this Major Phase / Sub-Phase (Acreage Excludes T1)	25.32	5.81	19.51	2951	2529	105	274	43						
Total of Prior Approved plus Proposed Major Phase / Sub-Phase	25.32	5.81	19.51	2951	2529	105	274	43						
Percentage for this Major Phase / Sub-Phase	% of Auth Land:	22.9%												
Cumulative Percentage	% of Auth Land:	22.9%	% Rental:	10.7%										

# 8.4 APPENDIX D: SUMMARY PRO FORMA

## SUMMARY PRO FORMA

	Total	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Residential For Sale - Market Rate	5,338	-	-	213	486	509	289	721	376	407	741	303	693	292	278	31	-	-	-	-
Residential For Sale - Affordable	229	-	-	10	25	25	16	17	18	21	24	16	23	16	15	2	-	-	-	-
Residential For Rent - Market Rate	545	-	-	-	52	78	144	-	85	78	2	-	78	29	-	-	-	-	-	-
Residential For Rent - Afford Incl	87	-	-	-	8	12	23	-	14	12	0	-	12	5	-	-	-	-	-	-
Branded Condo	117	-	-	-	-	-	-	117	-	-	-	-	-	-	-	-	-	-	-	-
<b>TIDA/THDI<sup>(1)</sup></b>	<b>1,684</b>	<b>-</b>	<b>-</b>	<b>31</b>	<b>75</b>	<b>186</b>	<b>188</b>	<b>84</b>	<b>210</b>	<b>215</b>	<b>217</b>	<b>144</b>	<b>184</b>	<b>77</b>	<b>65</b>	<b>7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Subtotal</i>	<i>8,000</i>	<i>-</i>	<i>-</i>	<i>254</i>	<i>646</i>	<i>810</i>	<i>660</i>	<i>939</i>	<i>703</i>	<i>733</i>	<i>984</i>	<i>463</i>	<i>990</i>	<i>419</i>	<i>358</i>	<i>40</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Commercial Square Feet	533,229	-	-	7,532	-	-	-	146,448	280,291	-	-	98,958	-	-	-	-	-	-	-	-
Hotel Rooms	250	-	-	-	-	-	-	50	-	200	-	-	-	-	-	-	-	-	-	-
<b>REVENUES</b>																				
Residential For Sale - Market Rate	1,339,971,964	-	-	80,631,422	148,491,427	131,733,747	70,739,976	152,808,805	98,844,548	103,774,493	174,165,607	75,721,845	157,155,850	71,458,581	67,138,664	7,306,998	-	-	-	-
Residential For Sale - Affordable Inclusionary	(90,711,497)	-	-	(5,373,315)	(11,280,052)	(9,583,372)	(6,015,314)	(6,537,102)	(6,900,658)	(7,908,593)	(9,527,416)	(6,066,186)	(9,101,867)	(6,066,186)	(5,574,423)	(777,011)	-	-	-	-
Residential For Rent - Market Rate	68,125,000	-	-	-	6,467,563	9,701,345	18,001,384	-	10,671,479	9,701,345	215,585	-	9,701,345	3,664,953	-	-	-	-	-	-
Residential For Rent - Affordable Inclusionary	(20,725,000)	-	-	-	(1,967,563)	(2,951,345)	(5,476,384)	-	(3,246,479)	(2,951,345)	(65,585)	-	(2,951,345)	(1,114,953)	-	-	-	-	-	-
Commercial Acreage Sales	17,500,000	-	-	-	2,500,000	-	-	-	-	-	-	15,000,000	-	-	-	-	-	-	-	-
Branded Condo	19,427,094	-	-	-	-	-	-	19,427,094	-	-	-	-	-	-	-	-	-	-	-	-
Rental Revenues from Existing Buildings / Units	71,778,598	6,183,499	7,555,704	7,694,596	7,836,961	6,487,164	6,599,343	5,142,884	5,221,456	5,301,993	5,384,543	5,469,156	2,901,300	-	-	-	-	-	-	-
Marketing Revenue From Builders	32,341,269	-	-	-	-	841,503	2,048,711	2,847,018	2,420,762	2,753,326	4,010,614	3,966,638	4,453,774	4,346,149	4,300,530	352,244	-	-	-	-
<b>Total Revenues Before Inflation</b>	<b>1,437,707,428</b>	<b>6,183,499</b>	<b>7,555,704</b>	<b>87,952,703</b>	<b>152,048,337</b>	<b>136,229,042</b>	<b>85,897,715</b>	<b>173,688,699</b>	<b>107,011,109</b>	<b>110,671,219</b>	<b>174,183,347</b>	<b>94,091,453</b>	<b>162,159,057</b>	<b>72,288,543</b>	<b>65,864,771</b>	<b>6,882,232</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Plus: Inflation	323,356,104	-	-	4,583,219	13,140,471	16,178,133	12,303,868	32,154,232	22,842,311	27,374,852	50,223,022	23,955,722	59,480,933	28,927,214	28,844,923	3,347,205	-	-	-	-
<b>Total Revenues</b>	<b>1,761,063,532</b>	<b>6,183,499</b>	<b>7,555,704</b>	<b>87,535,921</b>	<b>165,188,807</b>	<b>152,407,175</b>	<b>98,201,583</b>	<b>205,842,931</b>	<b>129,853,420</b>	<b>138,046,071</b>	<b>224,406,369</b>	<b>118,047,175</b>	<b>221,639,991</b>	<b>101,215,757</b>	<b>94,709,694</b>	<b>10,229,437</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>COSTS</b>																				
<b>Land Cost</b>																				
Land Deposit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase - Initial Consideration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase - Interest	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase - Additional Consideration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Initial Consideration	65,180,000	5,780,000	7,480,000	7,260,000	7,040,000	6,820,000	6,600,000	6,380,000	6,160,000	5,940,000	5,720,000	-	-	-	-	-	-	-	-	-
Additional Consideration	50,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50,000,000	-	-	-
<b>Total Land Costs</b>	<b>115,180,000</b>	<b>5,780,000</b>	<b>7,480,000</b>	<b>7,260,000</b>	<b>7,040,000</b>	<b>6,820,000</b>	<b>6,600,000</b>	<b>6,380,000</b>	<b>6,160,000</b>	<b>5,940,000</b>	<b>5,720,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>50,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
	795,665,541	14,352,923	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Hard Costs</b>																				
Site Closure Oversight & Insurance	8,000,000	-	8,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Historic Building 2 Grocery/Retail	25,000,000	-	-	-	-	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	-	-	-	-	-	-	-	-	-	-
Fees, Bonds, Permits	16,275,812	200,000	1,436,306	2,510,216	1,515,532	1,210,398	504,494	100,146	2,139,005	2,882,563	544,072	549,064	2,554,731	122,632	6,654	-	-	-	-	-
Site Development, incl. Cleanup & Ramps/Viaduct	206,829,337	7,818,860	23,527,051	27,061,971	15,721,955	3,316,844	4,920,164	6,996,532	22,306,340	39,465,019	9,139,204	24,156,933	22,398,465	-	-	-	-	-	-	-
Transportation, Ferry Terminal & Parking Garage	72,872,155	-	-	-	-	6,959,655	3,338,194	3,338,194	1,946,786	8,905,751	14,635,747	18,302,129	11,136,187	4,087,726	221,786	-	-	-	-	-
Infrastructure, Landscape, Police/Fire, Water Tanks	269,178,509	-	9,799,304	52,212,203	40,635,729	28,759,571	11,177,025	1,692,196	14,280,086	29,138,751	33,588,044	14,517,409	11,101,673	11,277,342	5,738,701	5,260,476	-	-	-	-
Construction Management	21,327,059	-	940,581	4,922,543	3,369,354	2,331,146	1,263,930	2,600,912	2,587,262	1,438,027	709,630	732,085	413,847	8,871	8,871	-	-	-	-	-
Engineering and Other Fees	52,517,647	12,333,275	5,851,214	6,577,240	1,397,087	1,869,088	1,945,080	3,724,705	4,801,509	3,349,300	3,828,247	4,700,988	1,783,517	334,219	22,179	-	-	-	-	-
Contingency	126,529,519	-	8,773,468	19,103,625	13,937,182	9,493,526	4,755,541	3,728,641	9,363,257	17,120,954	12,530,274	12,454,149	9,661,948	3,231,056	1,264,420	1,111,479	-	-	-	-
<b>Total Hard Costs</b>	<b>798,530,839</b>	<b>20,352,135</b>	<b>58,327,924</b>	<b>112,387,797</b>	<b>76,576,837</b>	<b>58,940,228</b>	<b>32,904,428</b>	<b>27,181,326</b>	<b>62,424,244</b>	<b>107,300,366</b>	<b>74,975,218</b>	<b>75,412,756</b>	<b>59,050,368</b>	<b>19,061,846</b>	<b>7,262,610</b>	<b>6,371,955</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Sales &amp; Marketing</b>																				
Residential Marketing	32,788,873	250,000	250,000	1,096,827	3,097,037	2,901,570	1,791,071	3,957,061	2,444,224	2,599,815	4,300,224	1,872,228	4,285,698	1,937,392	1,808,183	197,544	-	-	-	-
Closing Costs	49,183,310	-	-	2,395,240	4,645,555	4,352,355	2,686,606	5,935,591	3,666,336	3,899,723	6,450,336	2,808,341	6,428,547	2,906,088	2,712,275	296,316	-	-	-	-
<b>Total Sales &amp; Marketing</b>	<b>81,972,183</b>	<b>250,000</b>	<b>250,000</b>	<b>3,492,066</b>	<b>7,742,592</b>	<b>7,253,925</b>	<b>4,477,676</b>	<b>9,892,651</b>	<b>6,110,560</b>	<b>6,499,538</b>	<b>10,750,561</b>	<b>4,680,569</b>	<b>10,714,246</b>	<b>4,843,480</b>	<b>4,520,458</b>	<b>493,860</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Planning And Entitlements - Pre Acq./Land</b>																				
Affordable Housing Subsidy	105,000,000	-	-	3,721,789	9,414,491	10,258,950	7,576,275	14,660,297	8,072,350	8,481,339	13,001,416	5,298,260	13,477,585	5,618,853	4,870,533	547,862	-	-	-	-
Transportation Operating Subsidy	38,200,494	-	-	-	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	2,200,494	-	-	-	-	-	-
Parks and Open Space Maintenance Subsidy	18,431,311	-	-	-	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,931,311	-	-	-	-	-	-
School & Community Facilities	21,512,029	-	-	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	2,862,660	-	-	-	-	-	-
Existing Rental Operating Expenses	48,988,574	4,516,832	5,555,704	5,694,596	5,836,961	4,487,164	4,599,343	3,142,884	3,221,456	3,301,993	3,384,543	3,469,156	1,777,943	-	-	-	-	-	-	-
TIDA Admin/THDI Job Broker	34,133,109	1,666,667	2,200,000	2,300,000																

## 8.5 APPENDIX E: GEOTECHNICAL REPORTS

The documents noted below were separately distributed to agency representatives from the Department of Public Works (DPW) and the Department of Building Inspection (DBI) on February 3, 2015. Digital files on enclosed DVD.

1. Treasure Island Geotechnical Conceptual Design Report, February 2, 2009
2. Treasure Island Geotechnical Conceptual Design Report Appendix 4, February 2, 2009
3. Treasure Island Sub-phase 1A Geotechnical Data Report; Draft, December 31, 2014
4. Technical Memorandum 1, Preliminary Foundation Design Parameters Treasure Island Ferry Terminal Improvements, January 2, 2015
5. Technical Memorandum 2, Preliminary Geotechnical Design for Sub-Phase 1A Shoreline Stabilization, January 2, 2015
6. Treasure Island Sub-phase 1A Interim Geotechnical Characterization Report; Draft, January 5, 2015

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# 8.6 APPENDIX F: QUALIFICATIONS OF RESIDENTIAL AUCTION LOT BIDDERS

## AUCTION BIDDER SELECTION GUIDELINES RESIDENTIAL LOTS

### Non-Affiliation Requirement

- Bidder is not an Affiliate of Developer
  - Affiliate of Developer means an entity that directly or indirectly controls, is controlled by, or is under common control with, the Developer or its partners or members.
- Bidder does not have any financial arrangements with Developer in submitting its bid.

### Financial Requirements

- Bidder is able to demonstrate the financial ability to perform the obligations it is assuming in association with the development of the auction lot. For purposes of this section, this includes evidence of access to adequate equity and debt capital along with commitment letters from those financing sources, and the ability to post the required security associated with the development of the auction lot.
- Provision of a commitment letter to fund a 10% refundable deposit within 10 business days of being selected the auction winner.

### Experience Requirements

- The managing principal of the bidder has at least five (5) years of experience in developing the type of residential product to be developed on the auction lot the bidder is seeking to purchase.
- The principals of the bidder have collectively completed at least three (3) development projects containing at least 75% of the number of units proposed for the auction lot.

### Entity in Good Standing Requirements

- Documentation evidencing that the bidder and its constituent members, if any, have been duly formed, made all filings and are in good standing in the State of California and in the state of their respective incorporation. If the bidder is a joint venture, then the bidder shall provide evidence demonstrating the existence of a duly executed contractual relationship between the applicable parties.
- Bidder has not defaulted on its obligations on another lot or project within the Treasure Island or Yerba Buena Island development area.

### No Unfair Advantage Requirement

- Bidder has not received an unfair advantage by receiving any bid information that is different from or in advance of such information being made available to other interested bidders.

## AUCTION BIDDER SELECTION GUIDELINES RESIDENTIAL LOTS

### Non-Affiliation Requirement

- Bidder is not an Affiliate of Developer
  - Affiliate of Developer means an entity that directly or indirectly controls, is controlled by, or is under common control with, the Developer or its partners or members.
- Bidder does not have any financial arrangements with Developer in submitting its bid.

### Financial Requirements

- Bidder is able to demonstrate the financial ability to perform the obligations it is assuming in association with the development of the auction lot. For purposes of this section, this includes evidence of access to adequate equity and debt capital along with commitment letters from those financing sources, and the ability to post the required security associated with the development of the auction lot.
- Provision of a commitment letter to fund a 10% refundable deposit within 10 business days of being selected the auction winner.

### Experience Requirements

- The managing principal of the bidder has at least five (5) years of experience in developing the type of residential product to be developed on the auction lot the bidder is seeking to purchase.
- The principals of the bidder have collectively completed at least three (3) development projects containing at least 75% of the number of units proposed for the auction lot.

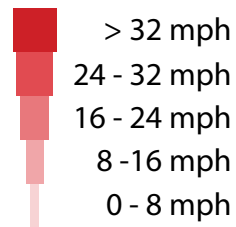
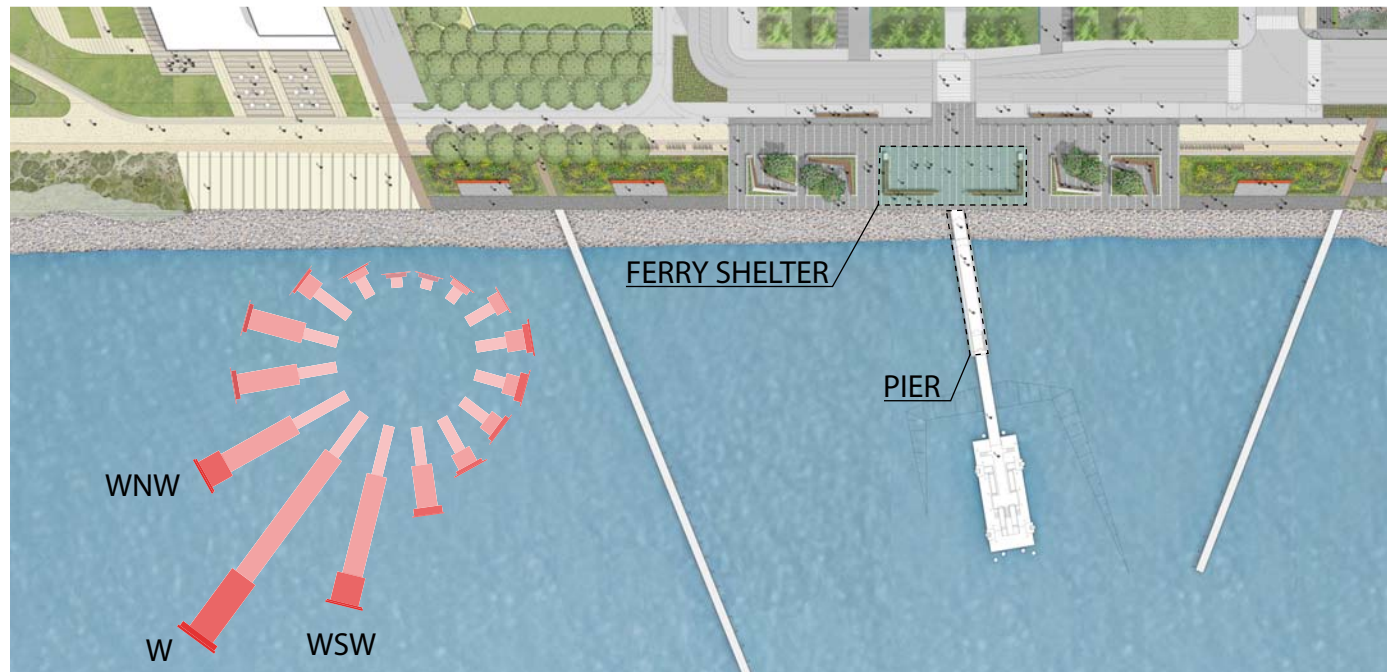
### Entity in Good Standing Requirements

- Documentation evidencing that the bidder and its constituent members, if any, have been duly formed, made all filings and are in good standing in the State of California and in the state of their respective incorporation. If the bidder is a joint venture, then the bidder shall provide evidence demonstrating the existence of a duly executed contractual relationship between the applicable parties.
- Bidder has not defaulted on its obligations on another lot or project within the Treasure Island or Yerba Buena Island development area.

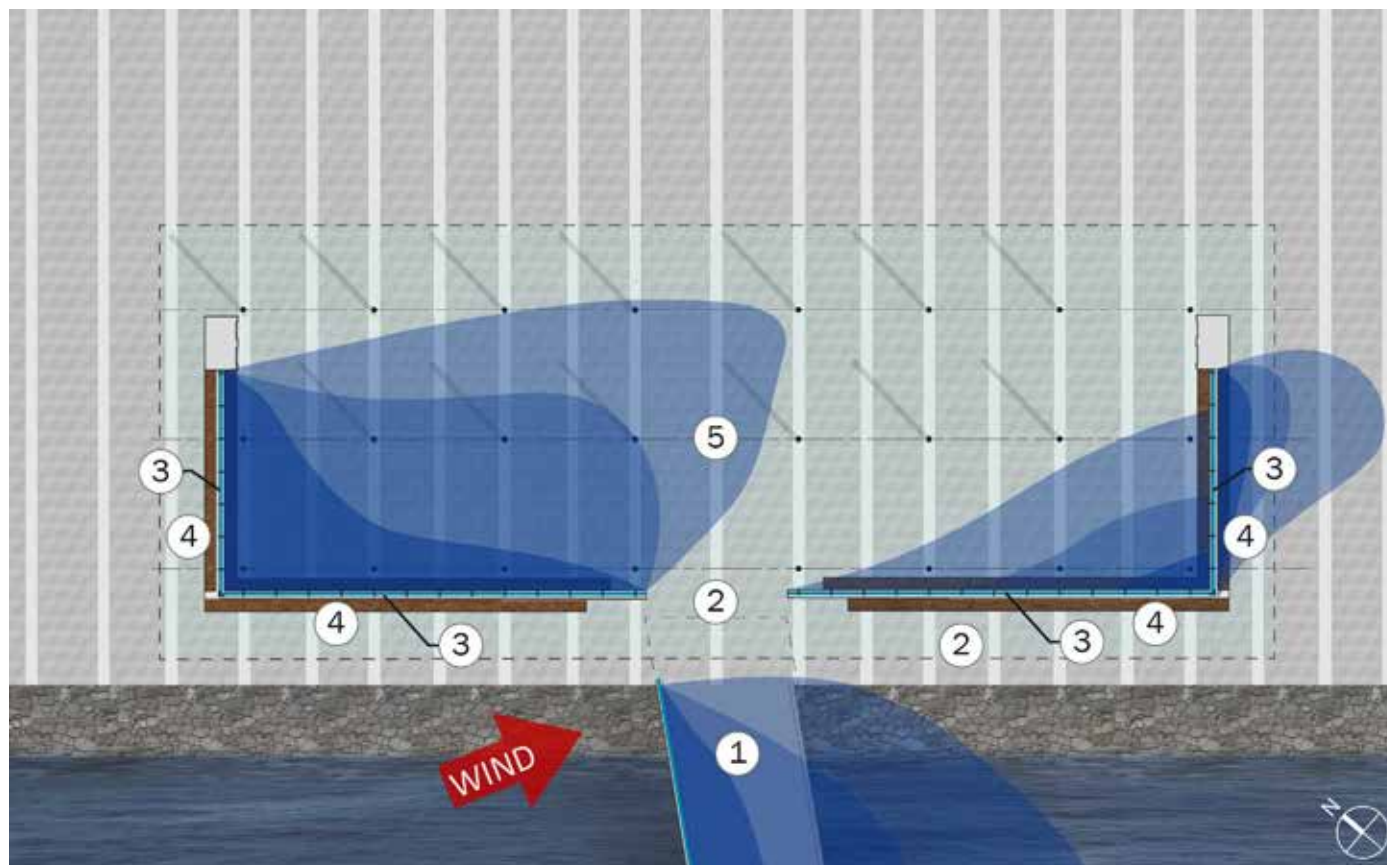
### No Unfair Advantage Requirement

- Bidder has not received an unfair advantage by receiving any bid information that is different from or in advance of such information being made available to other interested bidders.

# 8.7 APPENDIX G: FERRY SHELTER & PIER WIND MITIGATION



DIRECTIONALITY & ANTICIPATED MAGNITUDE OF WINDS AT FERRY SHELTER & PIER



- BEST PROTECTION**  
reduction factor: 3
  - GOOD PROTECTION**  
reduction factor: 2
  - SOME PROTECTION**  
reduction factor: 1.2
- \*areas of 'BEST' to 'GOOD' will most likely not exceed 26mph
- 1 PIER STRUCTURE
  - 2 GAP IN WIND PROTECTION
  - 3 WIND SCREENS
  - 4 PERIMETER SEATING
  - 5 FERRY SHELTER

FERRY SHELTER WIND MITIGATION MAP FOR WEST-NORTHWEST WINDS

## FERRY SHELTER & PIER WIND MITIGATION

A qualitative wind safety and comfort assessment was conducted by CPP, Inc. for the proposed Ferry Shelter and Pier to estimate whether sufficient mitigation will be provided to ensure the safety and comfort of users.

The project site is located in an area where the available and applicable meteorological data is sparse. Alameda NAS has very similar exposure as the project site and therefore was used for the analysis within CPP's report.

The San Francisco Planning Code was utilized for guidance purposes. It states that a development shall not cause ground-level wind currents to exceed the comfort level of 11 MPH (equivalent wind speed) in areas of substantial pedestrian use for more than 10 percent of the time year round between 7AM and 6PM. Equivalent wind speeds are defined as an hourly mean wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians. Hazardous wind conditions are defined as 26 MPH (equivalent wind speed) and should not be exceeded one hour per year. Section 148 of the San Francisco Planning Document also states that when preexisting ambient wind speeds exceed the comfort level, the building shall be designed to reduce the ambient wind speeds to meet the requirements.

In comparing all seasons, the highest winds blow from the WNW, W, and WSW and therefore any wind mitigation measures should focus on these directions. Wind impacts were analyzed in two dominant timeframes based on morning and evening commute hours. Ambient wind conditions without the shelter structures (preexisting conditions) exceed the 26 mph criterion more than one hour per year.

### MORNING HOURS (6AM - 10AM)

The largest group of passengers waiting in the Ferry Shelter and Pier will be during the morning rush hours as residents are leaving the island.

During the morning hours, no wind mitigation is needed during the fall and winter. Some wind mitigation is needed in the spring and summer.

### AFTERNOON HOURS (3PM - 7PM)

The majority of the afternoon traffic will consist of residents returning to the island who will be passing through the Ferry Shelter and Pier. A smaller group of passengers waiting in the Ferry Shelter and Pier to return to San Francisco will include tourists leaving the island and those working on the island.

During the afternoon hours, slight wind mitigation is needed in the winter. Significant wind mitigation is needed in the spring, summer, and fall.

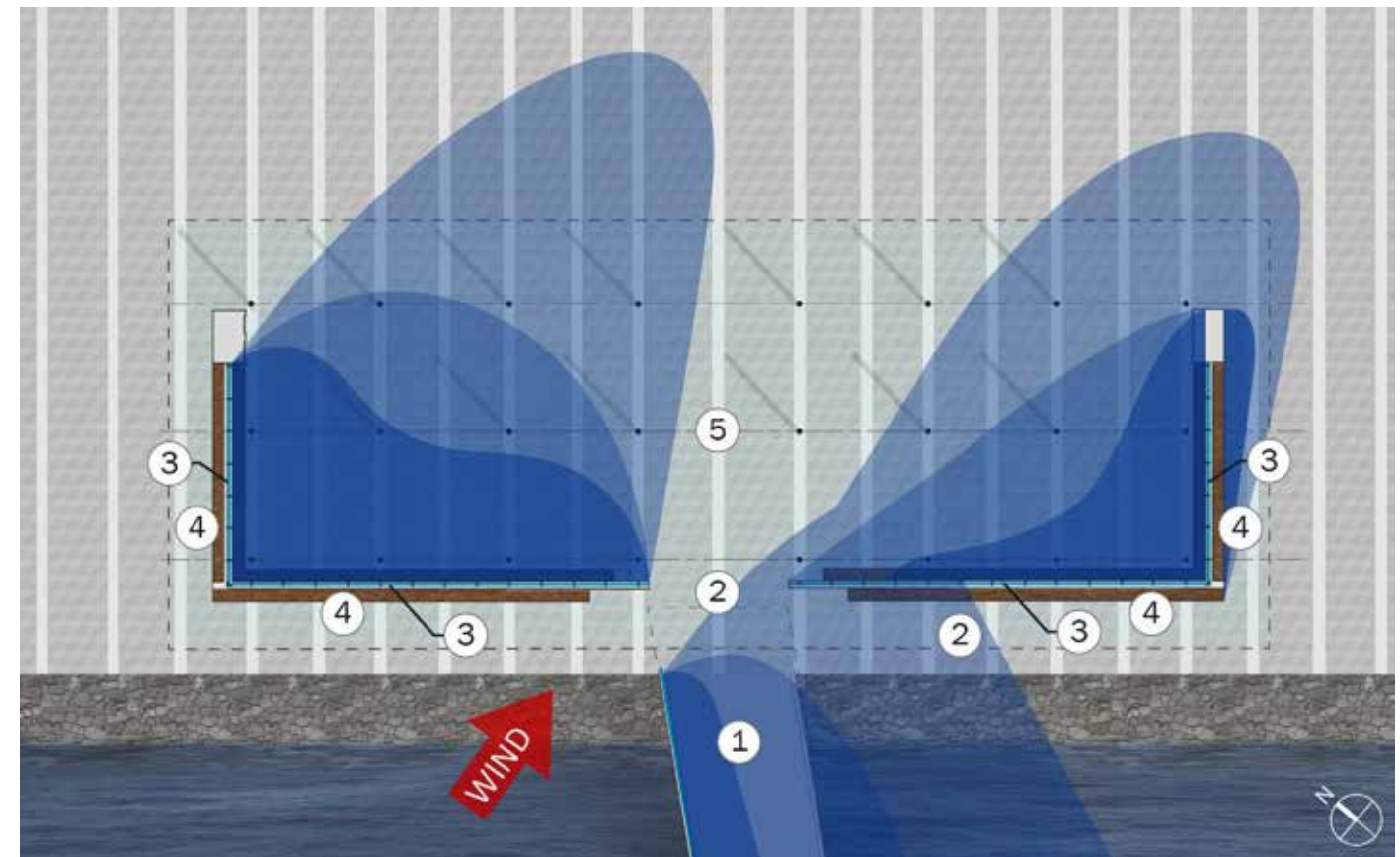
### RESULTS & RECOMMENDATIONS

The proposed Ferry Shelter design provides sufficient wind protection for the wind directions of primary concern (WNW, W, WSW). The hazard criterion of 26 MPH is not likely to be exceeded in the sheltered areas of the Ferry Shelter.

The current Pier design provides good protection for wind directions of primary concern (WNW, W, WSW). The hazard criterion of 26 MPH is expected to be exceeded more than once per year.

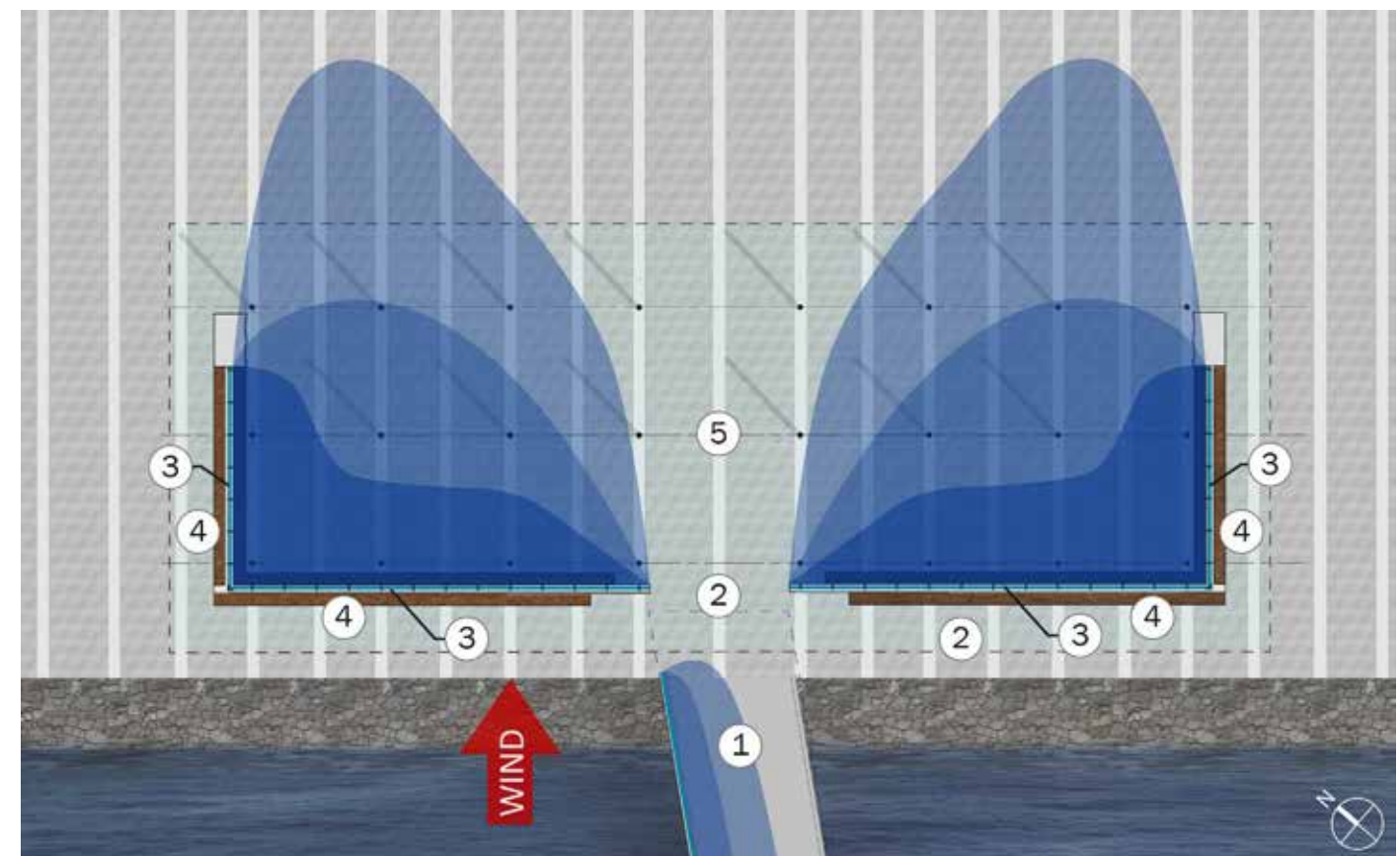
Overall, the Ferry Shelter and Pier design reduce the preexisting ambient wind speeds, which are in excess of the comfort criteria.

- BEST PROTECTION**  
reduction factor: 3
  - GOOD PROTECTION**  
reduction factor: 2
  - SOME PROTECTION**  
reduction factor: 1.2
- \*areas of 'BEST' to 'GOOD' will most likely not exceed 26mph
- 1 PIER STRUCTURE
  - 2 GAP IN WIND PROTECTION
  - 3 WIND SCREENS
  - 4 PERIMETER SEATING
  - 5 FERRY SHELTER



FERRY SHELTER WIND MITIGATION MAP FOR WEST WINDS

- BEST PROTECTION**  
reduction factor: 3
  - GOOD PROTECTION**  
reduction factor: 2
  - SOME PROTECTION**  
reduction factor: 1.2
- \*areas of 'BEST' to 'GOOD' will most likely not exceed 26mph
- 1 PIER STRUCTURE
  - 2 GAP IN WIND PROTECTION
  - 3 WIND SCREENS
  - 4 PERIMETER SEATING
  - 5 FERRY SHELTER



FERRY SHELTER WIND MITIGATION MAP FOR WEST-SOUTHWEST WINDS