	Submission		Response
No.	Date	Question	Response
0055R1		such tiebacks would be placed? BSE QBD# TG0300-0055 in Answer Set #2 posted on 08/30/2010 provided a response to this question. Design team has revised the attached response that supersedes the previously posted response.	Addendum 3 is too close to the final southwest train box wall. The shoring wall layout will be placed once the adjacent properties are acquired and demolished. Tiebacks installed at shoring wall segment X1-1 would interfere with the installation of shoring at the final southwest train box wall. Consistent with response TG0300-0272 (posted 10/5/10), tiebacks are not acceptable at wall segment X1-1.
TG0300- 0084R1	10.11.2010	stage of excavation in zone #1 will wall X1-1 be removed? 2. Can tiebacks be used to support wall segment X1-1? BSE QBD# TG0300-0084 in Answer Set #2 posted on 08/30/2010 provided a response to this question. Design team has revised the attached response that supersedes the previously posted response.	The revised shoring wall layout shown in Addendum 3 is too close to the final southwest train box wall. The shoring wall layout will be placed once the adjacent properties are acquired and demolished. Tiebacks installed at shoring wall segment X1-1 would interfere with the installation of shoring at the final southwest train box wall. Consistent with response TG0300-0272 (posted 10/5/10), tiebacks are not acceptable at wall segment X1-1.
0104R1	10.12.2010	Per the Bid Documents, the Trade Subcontractor for the BSE package is responsible for removing the dewatering system. Is the Trade Subcontractor for the BSE package also responsible for pouring back the void left in the base slab once the dewatering well is removed? We also request confirmation that the waterproofing will be tied into the dewatering well casing by others. Finally, please provide a detail for abandoning the well casing in place. BSE QBD# TG0300-0104 in Answer Set #3 posted on 09/08/2010 provided a response to this question. The previously posted response has been revised and is superceded by the attached response.	Please see response TG0300-0287 that supersedes previously posted response TG0300-0104.
TG0300- 0122R1	10.12.2010	Reference Project Bid Manual IV.A.12.a, 27.b, and Site Logistics Exhibit A. These sections reference material/personnel hoists. Is the TG03 Contractor to provide access for the follow on trade subcontracts? Please provide specifications for size, type, and capacity, otherwise hoists will be designed to minimum requirements for this Trade Subcontractor to complete its work. BSE QBD# TG0300-0122 in Answer Set #2 posted on 08/30/2010 provided a response to this question. The previously posted	Please see response TG0300-0337 that supersedes previously posted response TG0300-0122.

		response has been revised and is superceded by the attached response.	
TG0300- 0257	9.21.2010	Reference Q&A TG0300-0178 The response to question TG0300-0178 states that the micropile subcontractor is responsible for furnishing and installing micropile anchorage reinforcing steel. Is the reinforcing steel referred to here the vertical reinforcing steel that is placed in the micropile drill hole or does it refer to reinforcement placed in the trainbox bottom slab outside the limits of the drill hole. The micropile subcontractor does not normally design reinforcing in the footings or mat slabs that is placed outside the drill hole. This is normally done by the designer of the footing or mat slab. Please clarify the design requirements of the micropile subcontractor as it relates to reinforcing steel.	The micropile subcontractor's reinforcing steel refers to the vertical steel placed in the micropile drill hole and not the train box bottom slab reinforcement. Note that the micropile reinforcing steel extends vertically into the train box bottom slab as depicted in 1/S1-3003.
TG0300- 0271	9.21.2010	Reference Specification Addendum 2 - Page 31 09 13-4 1. According to information presented in the Table 1 of Part 3, Section 3.4 Performance Requirements, Addendum 2, Page 31 09 13-4, horizontal movement of the CDSM wall is limited to the following values:	The documents provide the minimum requirements of the shoring wall and bracing system. They are based upon the results of numerical analyses of the excavations using non-linear finite element analysis software, such as PLAXIS and LS Dyna, that has been calibrated against the measured displacements of other similar excavations in the Bay Area. We suspect that the results of the cantilever situation
		At Survey Reference Point at top of Soldier Piles - Action Trigger Level - 1/2 inch	quoted in the question, prior to installation and preloading of first level bracing, have been carried out using analyses programs that may not have been so calibrated, and
		- Medium Allowable Movement - 1 inch	consequently horizontal movements in the order of 1.5 to 2 inches are predicted.
		At any point along the soldier piles	Most of our analyses have been based upor plane strain assumptions. We anticipate that, as a result of 3D effects, through the
		- Action Trigger Level- 1/2 inch	use of berms and strutting progressively as excavation proceeds, the action trigger
		- Maximum Allowable Movement -3 inches	levels will provide a robust check on the construction sequence and our predictions. The action trigger levels are likely to be
		As per our preliminary analysis of the CDSM wall (based on the available soil pressure information presented on GT-1110 and available geotechnical data presented in Soils Report) it was estimated that the following horizontal displacements attributed to the pile bending and soil compressibility will occur in the CDSM wall during excavation required for the internal bracing placement:	exceeded, but only at the later stages of excavation, and we need to ensure that such exceedence is compatible with our construction sequence assumptions in those areas. In no case are we anticipating the maximum allowable movement values
		- Horizontal movement at the top of CDSM wall prior to installation and preloading of the first level bracing -1.5 to 2 inches.	to be exceeded.
		- Horizontal movement of CDSM wall at elevations of intermediate and bottom	

		bracing levels prior to the bracing installation - 0.5" to 1.5"	
		A. Horizontal deformations listed above exceed Action Trigger Level movements and approach or exceed Maximum Allowable Movements as specified in Table of Section 31 09 13. Please note that these movements are related to the pile bending and soil compressibility only and do not include horizontal inward movement of the CDSM wall attributed to the bracing system elastic. deformations. We have a right to rely on the Owner designed CDSM wall system in preparing our design of the internal bracing systems required to meet the listed deflection criteria. Please provide the magnitude of the CDSM wall anticipated horizontal movement attributed to the pile bending and soil compressibility at each stage of excavation so we may continue our design. Based on the information presented above, the Action Trigger Level horizontal movement limitations presented in Table 1 will be exceeded no matter what Subcontractor's designed internal bracing is applied at the prescribed bracing levels shown in the drawings. We urge a review of the Action Trigger Level limitations and anticipated maximum horizontal deflections due to pile bending and soil compressibility. These Action Trigger Level allowable horizontal movement limits need to be increased to reflect initial horizontal deformations due to pile bending and soil compressibility. We need an immediate response to this critical issue in which to allow the design to continue work on this time sensitive issue.	
TG0300- 0287	9.27.2010	intact and in condition for facure use, or are the wens to be permanently destroyed per	Trade Subcontractor shall remove the dewatering system per Section 31 29 19, paragraph 3.9. This response supersedes previously posted response TG0300-0104.
TG0300- 0305	9.30.2010	74-81, section 23 or 74-90 Section 23 prior to capping? Addendum 3 requires all re-braces to be horizontal (no rakers allowed). That means a significant amount of wales and struts must be removed in lengths that will fit through lower concourse and ground level slab openings. Please provide sufficient information to allow bidders to determine where such openings occur, and their dimensions.	Per Addendum 3, rakers are not allowed. Ground floor and lower concourse slab opening information can be deduced from the reference Architectural A1 series drawings (e.g., A1-2005) where openings for escalators, stairs, etc., are indicated. Exact floor slab opening locations and dimensions will not be determined until after the BSE package is contracted.

TG0300- 0312	10.4.2010	Reference drawing sheet GT-5201. Top of concrete at primary and secondary shafts is shown 1.5 feet below subgrade Elevation with a tolerance of +/- 6 inches (1-2 feet below subgrade) The prototype Test program for the Buttress Shafts has shown how difficult it is to vertically separate 2 different concrete mixes in any tremie pour placement method. Can the top of concrete for all Primary and Secondary shafts be lowered to 4 feet below subgrade and the tolerance be increased to +/- 4 feet?	Top of concrete at primary and secondary shafts shall be maximum 4 feet below subgrade elevation, and maximum 2 feet above subgrade elevation.
TG0300- 0313	10.4.2010	Sheet S-3003 Detail 1 shows a block-out in the train box bottom slab to allow for bearing plate and nut placement after slab is poured and cured, the block out is infilled with non-shrink grout. The micropiles are passive ground anchors. In our experience, the anchorage plate and nut are typically installed to design elevation and then cast into the foundation slab for this type of construction. This is a lower cost solution, provides better concrete encasement for corrosion protection and eliminates the requirement for a block-out and the associated come-back operations to install plate, nut and top up grout. A lock-nut can be used on underside of plate in order to set it to the correct elevation. Can the connection detail S-3003 be modified to allow micropile plate and nut connection to be installed before foundation slab is poured and allow option of eliminating the block-out?	Detail 1 will be modified in an addendum to allow the plate and nut to be installed before the foundation pour, as well as the option to eliminate the block-out.
TG0300- 0315	10.4.2010	Reference specification 31 63 33, drawing sheet S1-2024 and Exhibit I Schedule. 1) Bid schedule includes 870 each 90 ft. micropiles and 930 each at 100 ft. micropiles. Please provide a breakdown of quantity of "90 ft." and "110 ft." micropiles anticipated in each work zone. 2) Exhibit I designates 20 days for production micropiles in Zone 1 & 2, 15 days in Zone 3 and 30 days in Zone 4. Please confirm that these durations directly related to either (a) number of micropiles, or (b) linear foot length of micropiles in these zones. 3) Pay item for micropiles is broken down into "90 ft. long" and "110 ft. long." Specifications require contractor to select actual micropile length to meet performance requirements. Please clarify that pay unit will be applied only based on pile location, i.e. east or west of Gridline 17 as noted on S-3003, Detail 1.	1) See detail 1/S1-3003 for information regarding anticipated areas of the 90-ft and 110-ft micropiles. 2) Durations in Exhibit I for micropiles are assumed based on the area of each zone. 3) Bidder shall bid the items based on the information indicated in the Contract Documents. A difference between the Contract Documents and actual installed micropiles will be handled as a change condition.
TG0300- 0317	10.4.2010	Reference drawing sheets S1-2023, S1-2025, and S1-2027. The performance test pile locations shown on these drawing sheets are directly below the specified trestle locations. Can performance test piles be relocated to areas outside the trestle footprint? Contractor anticipates that some micropiles will be installed with overhead access limitations, i.e. below trestle, while other piles will be installed without headroom constraints, i.e. between bracing struts. Will one performance test pile be accepted for all installation configurations, or will an additional test pile per zone be required if different construction procedures are to be utilized in response to the access constraints?	 a) Performance test piles may be relocated. Contractor shall coordinate/relocate performance test piles as close to locations shown on drawings and submit for approval. b) Additional performance test piles are required if different construction procedures are to be utilized, per Section 31 63 33, paragraph 3.2.B.1. Provide a minimum of 2 additional performance test piles per additional construction procedure

			proposed.
TG0300- 0319	10.5.2010	Exhibit A, Section VI part 4F, indicates Professional Liability coverage required for a period 3 years beyond Contract Final Completion. Define Contract Final Completion. Please confirm our understanding that, per Exhibit I concept schedule, that the Trade Subcontractor is required to maintain said insurance 3 years beyond the Jan 12, 2018 date represented by activity SC]100100]FC, Final Completion.	Professional Liability coverage is required for a period of 3 years beyond Contract Final Completion. Actual date is subject to change.
TG0300- 0322	10.6.2010	Reference specifications 31 63 33, 01 10 20/APA and drawing sheet 1/S1-3003. Notes 1 of 1/S1-3003 states that for bidding purposes the micropile lengths should be assumed to be 90 feet and 110 feet, this would infer that if the contractor's design results in longer piles the contractor will be compensated for the additional length of pile. As well if the contractors design yields a more competitive length, the Owner would request a credit. This essentially removes any motivation for the design to develop a aggressive cost effective design. Are you sure the intent is not to bid this on a per each basis regardless of length? Please consider removing the comment of assume 90 and 110 feet for bidding purposes as it sets the stage for a significant change order.	Bidder shall bid the items based on the information indicated in the Contract Documents. A difference between the Contract Documents and actual installed micropiles will be handled as a change condition.
TG0300- 0323	10.6.2010	Reference specification 31 63 33, paragraph 3.K.2.	See responses TG0300-0240 (posted 9/27/10) and TG0300-0308 (posted 10/8/10).
TG0300- 0324	10.6.2010	Geotechnical capacity needs to have a factor of safety of 2.8, or thus be designed to withstand 560 kips. Many people consider the bond to have a maximum practical length of 50 feet this would mean an ultimate bond capacity of greater than 30 psi which is highly aggressive for the anticipated formation (FHWA design guidelines range states the maximum of 27 psi). When the structural engineer of record set the "bidding bond length", were they aware that the pile would have to be tested to 560 Kips? With these highly aggressive ultimate bond capacities the piles may need to need be advanced to greater depths than the anticipated bidding lengths. Please consider revising the anticipated bidding lengths or reducing the maximum performance testing load (which would be reasonable if testing frequency was increased)	"Bond" in the QBD refers to the shaft friction developed between micropile and the ground. There is no practical length or depth limitation to the development of shaft friction in this type of pile, provided that the pile is adequately reinforced over its length, and is properly constructed. The magnitude of the shaft friction is related to the detailed construction methodology selected by the tenderer, and the ground conditions at the time of the test. The lateral stress in the ground will reduce over time as the excavation proceeds, and this will in turn reduce the operational shaft friction. Allowance has been made for this effect in the performance testing that is specified to be carried out at the base of the excavation.
TG0300- 0325	10.6.2010	Reference specification 31 63 33 and drawing sheet 1/S1-3003. S1-3003 states that the 2.5 inch diameter bar will be Gr80 bar. Many of the bar suppliers sell Gr 75 bar. This bar has a yield strength of 368 kips, well in excess of the design load, and the same cross sectional area, as it relates to elongation. Please confirm that the Grade 75 will be acceptable for this work.	Grade 80 is a minimum requirement for the bar. Grade 75 will not be acceptable.

TG0300- 0328	10.7.2010		Per Addendum 4, issued 10/11/2010: (1) The bid due date is 11/09/2010 at 2pm; (2) The QBD deadline is extended to 10/15/2010 at 2pm.
TG0300- 0329	10.7.2010	(TG0300-0328) question #3 incorrectly asked "If the Bid Date is changed to November 2 The e-mail received 9/27/10 and subsequent posting on the BSE website reffered(referred) to November 9, 2010 which was the intended clarification. Also, Is it the intent of QBD's answered without posting or after posting an Addendum to be used as a basis of Bid?	Refer to response TG0300-0328. All QBD answers will be included in an upcoming addendum.
TG0300- 0330	10.8.2010	Addendum 2 modified Section 00 08 05 – Insurance Requirements. Section 1.3A requires the Contractor to purchase Builder's Risk Insurance to specified limits. Please clarify if the "Contractor" referred to in Section 1.3A is the BSE Trade Subcontractor or is it the CM/GC.	
TG0300- 0331	10.8.2010	Answer given to TG0300-232 referred to TG0300-150. TG0300-150 referred to Schedule in Add#3. Schedule in Add#3 shows Phase I work extending beyond current Webor/Obayashi Contract date. Question posed in TG0300-232 still requires clarification. Does the bidding Trade Subcontractor rely on an accelerated schedule to meet the current Webcor/ Obayshi deadline of 1825 days, or do we rely on the Concept schedule in Addendum #3 that shows Phase I work well beyond March of 2014? If we are not to rely on the Concept schedule, on what do we use for the basis of bid?	Trade Subcontractor shall rely on the Concept Schedule (Exhibit I), and as described in the Long Subcontract and Exhibit A.
TG0300- 0332	10.8.2010	Please confirm that the SBE Subcontractor's scope of work related to removing the cross-street bridges does not include backfill, paving, lighting and striping.	Confirmed. BSE Trade Subcontractor is responsible for coordination with other Trade Subcontractors during backfilling, paving, lighting, and striping.
TG0300- 0333	10.8.2010	there are specific activities for installing the cross-street bridges (e.g. Activity SX-103420, "Install Pin Piles & Traffic Bridge -1st St", Activity SX-104020, "Install Pin Piles & Traffic Bridge – Fremont St", Activity SX-105420, "Install Pin Piles & Traffic	Refer to response TG0300-0150 (posted 9/20/10). Traffic bridges will be removed after the structural steel activities in the corresponding areas of First, Fremont, and Beale streets.

		the SBE Subcontract, it is critical for us to know when their removal is scheduled to occur in order for us to determine at least an approximate duration for the Subcontract. The BSE Subcontract work appears to have a duration of 5 -6 years. Please note that it will be very difficult to obtain surety support for a Subcontract duration in excess of 5 years. Let us know when the removal of the cross-street bridges is expected to occur and what the duration of the BSE Subcontract is.	
TG0300- 0335	10.8.2010	After working on the BSE Subcontract estimate for several months, it is becoming increasingly apparent to us that, because of the scope, duration, and terms &	
TG0300- 0337	10.8.2010	Reference response to question #122 in Q&A #2. Answer states that minimum hoist requirement shall be dual hoists, each with 10,000 lb capacity. Our understanding is that the requested type of hoist is commercially unavailable. We are able to locate single mast hoists with a payload capacity of 6,000 lb. Please verify this is acceptable. If it is not, please provide a catalog cut of the hoist this specification was based on as we are unable to locate it.	Response TG0300-0122 is superseded by the following and will be included in an upcoming addendum: 2. Minimum hoist requirement shall be dual hoists, each with minimum 5,000 lb capacity, approximately 5 ft x 12 ft inside dimensions, and non hydraulic system.
TG0300- 0340	10.8.2010	Looking to the Late stages of the Internal Bracing Removal work will the Follow on Contractor installing the Concrete also be responsible for the Ventilation of the Confined Space they will be Creating? We will need Equipment inside the Train Box to remove the Reshoring. Or will this Trade Subcontract removing the Reshoring be required to Install a Ventilation System to take care of the Train Box?	BSE Trade Subcontractor is responsible for all confined space requirements, as they relate to the BSE work. Refer to the Contract Bidding Documents and applicable safety regulations.
TG0300- 0343	10.8.2010	Part 2 of response to TG0300-123 indicated that, "Specific criteria related to placement of temporary features such that they do not damage permanent features should be directed to designer of such permanent features." Who is the designer of such permanent features that we should direct our inquiries? Typically, these types of questions are coordinated through the Construction Manager. For example, we have requested clarification more than once about proof loading and preloading of Struts, and have received conflicting information as a response. If there is another venue other than the QBD process, please advise.	Specific criteria related to the placement of temporary features will be provided as part of the coordination between the engineer of record referred to in TG0300-005 and the designer of the permanent features (Pelli Clarke Pelli Architects, Inc.) postaward. These types of questions will be coordinated through the Construction Manager, post-award. We are aware of the conflicting responses regarding preloading and proofloading, and will be issuing clarification in upcoming revisions to the Q&A. There is no other venue for questions during the bidding period other than the QBD process.

TG0300- 0344	10.8.2010	Note 5 of the Structural Steel at Shoring Wall notes on Sheet GT-0000, indicates "All welds shall be made using low-hydrogen electrodes with minimum tensile strength equal to 70KSI. See Specifications for further requirements." However spec section 31-56-13 – Shoring wall by cement deep soil mixing (CDSM) method, does not list any welding requirements for the embedded pile. Verify what requirements the trade/subcontractor will be held to for splicing the CDSM pile.	Refer to Section 05 12 01.
TG0300- 0345	10.8.2010	Based on your response to (question above), we are assuming that the contractor and subcontractors responsibility for damage to the work caused by earthquakes exceeding 3.5 in magnitude will be insurance for earthquake risk. as allowed by Section 7105 of the Public Contract Code. We further assume that subcontractors will be included as additional insureds (insurances) in all builders risk coverage provided, including the earthquake coverage, and a waiver of subrogation in favor of all subcontractors will be included by endorsement to the policy.	Webcor/Obayashi will purchase the Builder's Risk policy identified in Section 00 08 05, paragraph 1.3A.
TG0300- 0346	10.8.2010	We interpret your response to TG0300-164 to allow the cantelevering (cantilevering) to exceed the stated 10 ft. max and does not require a 5th level of support and associated struts.	The questioner's interpretation is correct.
TG0300- 0347	10.11.2010	The letter received from Webcor/Obayashi postponing the bid date from October 09, 2010 to November 09, 2010 states that the last day for submission of TG03 ESE prebid questions is October 08, 2010. There are numerous technical and contractual unaddressed questions currently outstanding along with several previously addressed questions still needing clarification. By not properly responding to those questions you put a significant burden on the subcontractor to make allowances for costs that may not be able to be adequately determined to the point of even questioning whether it's appropriate to bid this project. Webcor/Obayashi needs to respond to issues and questions that are obviously of a critical nature that require an Owners response. As we can also determine other subcontractors on this trade package are asking very significant questions that require responses in order for us to competitively quote the project but certainly impact the cost of any proposal we might put forth. Examples of critical issues remaining to be properly addressed include: improbability to meet specified deflection criteria due to excessive deflection of the CDSM wall piles; the required height of the proposed work trestle and cross street bridges with the likely interference with the new proposed concrete box roof structure; and the resolution as to why Consequential Damages could be imposed by Webcor/Obayashi on the Trade Subcontractor. If future Addenda and additional responses to questions are issued after October 8th we believe that the Trade Subcontractors should be allowed additional time to develop questions in response to this correspondence but currently will not be allowed by this date limitation. We strongly object to the limiting of pre-bid questions to Webcor/Obayashi by October 8th and request additional time allowed closer to the bid date to respond to further correspondence directed to the Trade Subcontractors. In closing, we implore that all technical questions are identified and responded to in a timely manner for	Refer to response TG0300-0328.
TG0300- 0349	10.12.2010	material stored in bay area, insured again loss, photographs of material, etc.)?	Refer to Section 4.7 of the Long Form Subcontract and Section 00 07 00, article 9.03.I, Progress Payment. Trade Subcontractor is responsible for providing all required proof, storage, insurance, etc., as well as all associated costs.

TG0300- 0350	10.14.2010		No alternate proposal is allowed in the Bid. For the post bid substitution, please refer
		Please confirm alternate access trestle decks may be proposed at bid time, if all loading criteria is satisfied and added value is provided to overall Transbay Terminal	to Section 00 04 40, Request for Substitution; Section 00 07 00, article 3.13, Substitution; and other related documents.