The Afghanistan Engineering Support Program assembled this deliverable. It is an approved, official USAID document. Budget information contained herein is for illustrative purposes. All policy, personal, financial, and procurement sensitive information has been removed. Additional information on the report can be obtained from Firouz Rooyani, Tetra Tech Sr. VP International Operations, (703) 387-2151.

TETRA TECH

MEMO

To:	[redacted]
Cc:	[redacted]
From:	[redacted]
Date:	April 27, 2016
Subject:	WO-LT-0082 Engineering Support for Vertical Structures Amendment 1 (AMD1) American University of Afghanistan (AUAF) Women's Dormitory Review of the 100% Partial Site Construction Documents Resubmittal

This memorandum is presented in response to USAID's request to Tetra Tech (Tt) to review and comment on the WO-LT-0082 AMD1, AUAF Women's Dormitory 100% Partial Site Construction Documents resubmittal received by Tt on April 20, 2016 (see Appendix A- Submittal Tracker). The submittal package contained a 120-page Design Analysis, a 66-page Specification section, a 30-sheet plan set and one-sheet of Drywell Calculations.

As a result of this review, Tt has found that the 100% Partial Site Construction Documents resubmittal, including the site drawings for site civil, utility, electrical, and communications generally meets the requirements for a 100% submittal, although some minor corrections remain. Tt therefore recommends that USAID direct the Contractor to begin construction work on the approved site components, while the Contractor also works to resolve the remaining comments contained in this submittal review prior to resubmitting the 100% Partial Site Construction Documents package for Tt final cursory review to confirm that PEREZ has addressed all the open comments adequately.

The submitted package included:

- Overall Existing Condition Plan.
- Site Layout Plan.
- Site Grading and Drainage Plan.
- Site Sections.
- Walkway and Side Walk Dimension Plan.
- Civil Site Details.
- Ditch Plans and Profiles
- Site Utility Plan.
- Site Water and Sanitary Plan and Profile.
- Site Utility Details.
- Electrical Site Plan.
- Exterior Lighting Plan.
- Electrical Single Line Diagram.
- Communication Site Plan.
- Site Electrical and Communication Details.

- Relevant Design Analysis Sections.
- Relevant Specification Sections.

Tt understands that the final deliverable following Tt's review of the 100% Construction Documents submittal includes an Interim Design Review Report, Design Review Comment Sheet and Submittal Tracker. Tt will develop the aforementioned documents after reviewing the 100% Construction Documents package for the entire building and will incorporate our review of the 100% Partial Site Construction Documents resubmittal into these documents.

Civil

A review has been conducted of the civil aspects of the 100% Partial Site Construction Documents including Drawings, Design Analysis and Specifications, with reference to the latest codes and standards as mentioned in the AUAF Women's Dormitory building program. Based on Tt's review of the 100% Partial Site Construction Documents submittal package, and review PEREZ's responses to Tt's prior review comments, the civil discipline reviewers found that the site/civil drawings, design analysis and specifications are adequate for the 100% Construction Documents design level.

As indicated by the comments in the attached review, the site/civil component of the dormitory design has remaining items that need to be corrected prior to submitting Tt's final review. Refer to Appendix B for a comprehensive set of civil review comments. All of the remaining review comments for this 100% Construction Documents resubmittal should be addressed prior to resubmitting the 100% Partial Site Construction Documents.

Electrical and Communications

The electrical discipline reviewers found that the electrical and communication aspects of the site drawings, design analysis and specifications, while generally meeting expectations for the 100% Construction Documents stage, still have several inconsistencies in the details. Refer to Appendix B for a comprehensive set of electrical and communication review comments. All of the remaining review comments for this 100% Construction Documents resubmittal should be addressed prior to resubmitting the 100% Partial Site Construction Documents for Tt final cursory review.

Plumbing

The plumbing discipline reviewers found that while the plumbing aspects of the site drawings, design analysis and specifications are generally acceptable for this level of project development, there is one remaining comment that has not been addressed completely. The contractor has not provided the calculations for Chlorination system in the Design Analysis to accompany the highlighted information in the catalog.

Refer to Appendix B for a comprehensive set of plumbing review comments. The remaining review comment for this 100% Construction Documents resubmittal should be addressed prior to resubmitting the 100% Partial Site Construction Documents.

Structural

The structural discipline reviewers found that the structural aspects of the site drawings, design analysis and specifications, are generally acceptable for the 100% Construction Documents stage. There are several outstanding items that contractor should address completely. If the water supply to the dormitory is considered critical following a seismic event, then the structure must be designed to survive seismic loading. Refer to Appendix B for structural review comments. All of the remaining review comments for this 100% Construction Documents resubmittal should be addressed prior to resubmitting the 100% Partial Site Construction Documents.

Summary

The 100% Partial Site Construction Documents Submittal does adequately address the level of completion expected for the 100% Construction Documents stage for the included site components. Tt therefore recommends that USAID direct the Contractor to begin the construction works on the approved site components, while the Contractor also works toward the resolution all of the remaining comments contained in this submittal review. The Contractor should resolve all remaining comments prior to resubmitting the 100% Partial Site Construction Documents package for Tt final cursory review. In this final cursory review, Tt will confirm that PEREZ has addressed all of the remaining open comments adequately.

Appendix B, attached to this memorandum, includes Tt's review comments for the 100% Partial Site Construction Documents Resubmittal and Tt's backcheck of the Contractor responses to our previous review comments.

USAID FROM THE AMERICAN PEOPLE

U.S. Agency for International Development (USAID)
WO-LT-0082 AMD1 AUAF Women's Dormitory, Design Stages Submittal Tracker

TETRA TECH

Submittal Description					Tetra Tech (Tt) / USAID				
S/N	PEREZ Transmittal No.	TT Tracking Number	Document Name/ Description	Type of Document	Received from USAID	Due Date for Review	Reviewed by Tt	Returned to USAID	Status for Action
1	2	3	4	5	6	7	8	9	10
1	0001	WO-LT-0082 AMD 1_TO-15-00069_35%DES_Rev0	35% Design Submission	35% Design	October 15, 2015	October 30, 2015	Kabul/Reachback	October 26, 2015	Returned for Correction
	0001A	WO-LT-0082 AMD 1_TO-15-00069_35%DES_Rev1	35% Design Resubmission	35% Design	November 18, 2015	December 3, 2015	Kabul/Reachback	December 3, 2015	Reviewed as Amended
2	H- 0002	WO-LT-0082 AMD 1_TO-15-00069_65%DES_Rev0	65% Design Submission	65% Design	January 6, 2016	January 21, 2016	Kabul/Reachback	January 21, 2016	Returned for Correction
	112.1	WO-LT-0082 AMD 1_TO-15-00069_65%DES_Rev1	65% Design Resubmission	65% Design	February 25, 2016	March 12, 2016	Kabul/Reachback	March 12, 2016	Reviewed as Amended
3	115	WO-LT-0082 AMD 1_TO-15-00069_65%DESCivilPartial_Rev1	65% Design Civil Partial Package Resubmission	65% CivilDes	February 15, 2016	March 1, 2016	Reachback	February 17, 2016	Returned for Correction
	115	WO-LT-0082 AMD 1_TO-15-00069_65%DESCivilPartial_Rev2	65% Design Civil Partial Package Resubmission	65% CivilDes	February 18, 2016	March 4, 2016	Kabul/Reachback	March 2, 2016	Reviewed as Amended
4	137	WO-LT-0082 AMD 1_TO-15-00069_99%DES_Rev0	99% Design Civil Partial Package Submission	99% CivilDes	March 17, 2016	March 26, 2016	Kabul/Reachback	March 26, 2016	Reviewed as Amended
5	137	WO-LT-0082 AMD 1_TO-15-00069_100%DES_Rev0	100% Design Civil Partial Package Submission	100% CivilDes	March 31, 2016	April 7, 2016	Kabul/Reachback	April 7, 2016	Returned for Correction
	137.1	WO-LT-0082 AMD 1_TO-15-00069_100%DES_Rev1	100% Design Civil Partial Package Resubmission	100% CivilDes	April 20, 2016	April 27, 2016	Kabul/Reachback	April 27, 2016	Reviewed as Amended
									In Review with Tt
									Reviewed
									Reviewed as Amended
									Returned for Correction

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Tt Back-Check comments	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
GENERAL COMMENTS													
65% Review Comments													
14	RKO	Spec Div. 1	01 33 00	Designer shall add these items are inclusive into submittals required - MOBILIZATION PLAN, AREA USE PLAN and CONSTRUCTION STAFFING ORG CHART.	D	The Following Items are already submitted under separate ENG Form (Transmittal)MOBILIZATION PLAN AND AREA USE PLANS ARE ALREADY SUBMITTED TO USAID AND APPROVED, WHERE STAFFING ORG CHART IS INCLUDED IN THE QC PLAN.	Open Tt could not find the mentioned items in the 65% civil package resubmittal.	It will be provided in 99% package.	Tt could not find the mentioned items in the 99% civil package resubmittal. This review comment remains **OPEN**.	Mentioned documents are already submitted and approved by USAID	Since these documents are stated by PEREZ as already approved by USAID, then PEREZ can provide to Tt these document as FIO (no review required). These documents are: MOBILIZATION PLAN, AREA USE PLAN & QC Plan. Until Tt receives confirmation from USAID that these construction documents are indeed approved by USAID and that Tt receives copies of these construction documents, Comment #14 remains **OPEN.**	Perez believes that while Tt desires to have the documents which are already approved for information only. It would be better to communicate through the project COR. Similarly, for any other document reviewer can contact the COR, as according to the USAID policy contractor can not directly communicate with the Reviewer. However, reviewer is requested to realize that this is a design submittal and giving a comment like this is unrelated to what Perez submits.	At 65% design review, Tt requested that the MOBILIZATION PLAN, AREA USE PLAN & CONSTRUCTION STAFFING ORG CHART be included into the list of submittals required. The response of Perez - all items above already approved by USAID. The Tt Back check response was those items are not found within the 65% civil package resubmittal. Perez response was that these items will be provided in the 99% package. So the Perez response can be interpreted that the MOBILIZATION PLAN, AREA USE PLAN & CONSTRUCTION STAFFING ORG CHART were never before submitted nor approved by USAID. Again Tt cannot find the MOBILIZATION PLAN, AREA USE PLAN & CONSTRUCTION STAFFING ORG CHART in the 99% civil package resubmittal. Perez's response is that these documents are already approved by USAID. The next Tt back check response: *Since these documents are stated by PEREZ as already approved by USAID, then PEREZ can provide to Tt these document as FIO (no review required). These documents are: MOBILIZATION PLAN, AREA USE PLAN & QC Plan. Until Tt receives confirmation from USAID that these construction documents are indeed approved by USAID and that Tt receives copies of these construction documents, Comment #14 remains* ***OPEN.*** The Perez response deflects the sharing of pre-approved Perez construction documents away from Perez to be the sharing responsibility of USAID. In summary, Tt persists the request to see these documents, whether submitted by Perez and through USAID or from USAID as
26	RKO	Spec Div. 1	01 33 00, 1.18.1.e (6)	Designer shall add line items of all construction plans, i.e. HSE, and of all product submittal groups.	A	Per Reviewer instruction the UFGS is updated. This section is edited related to the project in latest version of UFGS	Open Need to be provided in 99% package.	It will be provided in 99% package.	Designer has not added line items of all construction plans, i.e. HSE, and of all product submittal groups, as mentioned in the review of the submittal register. This review comment remains **OPEN.**	Mentioned documents are already submitted and approved by USAID	Since PEREZ' HSE Plan as already been approved by USAID, then PEREZ can provide to Tt this document as FIO (no review required). Until Tt receives confirmation from USAID that this construction document has indeed been approved by USAID and that Tt receives copies of this construction document, Comment #26 remains **OPEN.** Additionally Comment #26 remains open because the submittal register is not confirmed as updated and complete, matching to the submittal requirements of the entire set of approved specifications and matching to the products to be used into the project. Repeat: Comment #26 remains **OPEN** for these two reasons.	Please refer to response comment no. 26	The PEREZ RESPONSE of *Please refer to response comment no.26* is an insufficient response. At issue are two things. Firstly, since PEREZ' HSE Plan as already been approved by USAID, then PEREZ can provide to Tt this document as FIO (no review required). Until Tt receives confirmation from USAID that this construction document has indeed been approved by USAID and that Tt receives copies of this construction document, Comment #26 remains **OPEN.** Secondly, comment #26 remains open because the submittal register is not confirmed as updated and complete, matching to the submittal requirements of the entire set of approved specifications and matching to the products to be used into the project. Repeat: Comment #26 remains **OPEN** for these two reasons. This will be the 5th time of this review comment being made. Provide the documents that can be provided because of USAID prior approvals and submit the submittal register that is completely comprehensive for the entire project, The submittal register is a very large document, of drawings, of construction aid docs and of product information. Tt has not received this comprehensive submittal register. Because two of these review comments have not been addressed. Comment #26 remains **OPEN.**
100% General Review Comments													
1	RJM	G-001	Drawing Index	Several of the plans are out of order in the pdf plan set..			Closed						
2	RJM	G-001	Legend	Many of the legend items do not accurately reflect the way that they are shown on the plans.			Closed						

WO-LT-0082 AMD 1 AUAF Women's Dormitory
100% Civil Partial Design Resubmittal Review Comment Sheet
27-April-2016

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check
		Page	Detail				
ARCHITECTURE COMMENTS							
100% Review Comments							

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
CIVIL COMMENTS													
35% Review Comments													
46	JWH	C-08		The drainage calculations provide peak flow to the channel but do not provide the volume calculations necessary to size the dry wells.	A			The size of dry well is increased but For the volume calculation the lab is asked to conduct a percolation test. Therefore till the results come we will confirm the adequacy of the drywell size	To remain open until results confirming design are received.	Laboratory is appointed to conduct a percolation test on site. The test result will be shared with Tt once Perez receive from Lab.	Open	The percolation test report is attached to the surface drainage analysis as an Appendix	See new comment No. 9 in 100%
47	JWH	C-08		Provide soil test documenting that the soils are permeable and that runoff will be dissipated by the drywells.	A	This comment is responded in the geotechnical investigation report.	Geotechnical report shows clay, no infiltration information is shown in the report. Clay is not suitable for storm water infiltration.	The depth of the drywell is increased please see civil detail dwg.	To remain open until results confirming design are received.	Laboratory is appointed to conduct a percolation test on site. The test result will be shared with Tt once Perez receive from Lab.	Open	The percolation test report is attached to the surface drainage analysis as an Appendix	See new comment No. 9 in 100%
65% Review Comments													
59	JWH	C-07/CU-502	Detail 9	Provide detail for Tie-in to holding tank	A	Please Clarify	Open, provide information about the location, materials and connection to tank. Also, it appears that the new line is running through the access chimney.	Connection of the sewer line to the existing holding tank is thru the Roof slab of the holding tank as shown on CU-502. This pipe has been extended to the ground for better venting of the tank. It is not access chimney	Open: Provide plan view to locate existing access and proposed tie-in. Provide detail to confirm that the proposed fittings will fit in the .15m clearance available between the invert and the top of tank.	Existing access to holding tank and location of sewer pipe connection to existing holding tank has been added and shown on sewer collection plan, CU-102. There is no exact drawing for existing holding tank to use for more detailing. Sewer pipe has been connected via two (2) 45 degree elbow fitting to the tank from the top as shown on CU-502. Elbows are per standard sizes.	Open: 150mm from invert to top of tank is not sufficient for back-to-back 200mm 45 elbows. Provide information regarding the size of the hole to be drilled in the tank and the method/materials to be used to seal the hole once the pipe is installed.	more information added to sheet CU-502 regarding the size of the hole to be drilled in the tank and the method/materials to be used to seal the hole once the pipe is installed. As stated before, the detail has been provided per actual pipe and fitting sizes. Please see the photo	CLOSED 
97	KF	C- 03		*- Where is common solid waste storage location, the location of dumpster pads, dumpster pad details, screen walls, in conformance with sanitation department standards. Please clarify.	A	There is a septic, according to the contract it has to be connected to existing holding tank. For more information please refer to the contract.	OPEN Provide trash collection points, to store the solid waste material.	1, there is an existing trash point shown on the drawings. 2, providing additional trash point is out of the scope of this contract	Open, The existing trash collection point may not be sufficient for the additional solid waste disposal of 200 Students, as it was constructed for the existing facilities. Per contract section E.7. Design and construction of the Women's Dormitory shall be in accordance with internationally recognized building and safety codes :(i.e. IBC, UFC...etc.).Provide Trash Dumpster as per UFC 3-201-01.	Provision of additional trash point is out of the scope of this contract. If Tt wants to include a trash collection point out side of the building, please contact the COR to issue modification in the contract, n order to include the extra budget of required design and build such facility.	Open		Open. Trash collection point is required per UFC 3-201-01. and the UFC standard is part of your contract .
127	NA	CU-103		A roof top elevated water reservoir is required per contract section C-4.Contractor to provide design calculation for sizing and drawings detail showing location and piping connections.	A	Details will be provided in 65% resubmitted package	OPEN Not provided , to be opened until necessary information is provided.	Roof mounted elevated tank details will be provided in building submittal not partial site submittal.	Open, Water tank sizing and associated piping to be covered under civil work ,hence, these details should be included in the civil package.	As agreed in the coordination meeting with the COR, roof mounted elevated tank details will be provided in building submittal not partial site submittal.	Open	As agreed in the coordination meeting with the COR, roof mounted elevated tank details will be provided in building submittal not partial site submittal.	Open. Water tank sizing and associated piping details must be included in the civil work portion.
139	NA	CU-501	Water Well Vault Plan	How will the roof top water reservoir get filled? a duplex booster pump system is required to shoot the water to the elevated water tank.(Ref. RFP Section C-4/5.)	A	Water reservoir will be filled with submersible pump directly and controlled automatically. There is no need for additional booster pumps.	OPEN Once the well is developed ,Provide pump size calculation to verify that the well pump is capable to shoot water from the well to the elevated water tank, considering head losses.	It will be done accordingly.	To remain open until the requested information is provided.	It will be done accordingly. Agree	Open		Open. To remain open until well report is submitted along with the well pump design.
152	NA	Design Analysis		Provide water well submersible pump design calculation.	A	Water well submersible pump design calculations will be provided after water well development.	OPEN To be opened until well is developed and report is provided.	It will be done accordingly.	Open	It will be done accordingly. Agree	Open		Open, To remain until well report is submitted along with the well pump design.
65% Civil Design Resubmittal Comments													
6	NA	Plan sheets		Provide landscape plan as required by contract section C.4	A	the landscaping plan will be submitted as part of 100% construction documents	Open, to remain open until the landscape plan is provided.	The land l1scaping plan will be coordinated with the AUAF representative. Then it will be submitted under Architecture discipline drawings in 100% complete submittal Package, not in Partial submittal	Open		Open, Landscaping plan must be included in the civil work portion of the design as a normal practice.		
17	NA	Design Analysis	Drywell	Provide structure calculation for the Drywell.	A	This is common practice, well with concrete ring. Hence, there is no need for calculation	Open		Open	calculation is provided accordingly	Open. Drawings do not match with the Calculation (i.e. Height ,outside diameter, rebar diameter and spacing).Coordinate drawings with the Calcs.		
99% Civil Design Comments													
5	RJM	C-05	Det 4	Invert of pipe must be the same as the ditch invert to prevent water from ponding in the ditch.	A	The drawing is changed. The pipes directed to	Open: this comment refers to the pipe connecting the paved ditch, not the roof drains. Correct invert elevation.	Invert elevation for the footbridge is corrected. The detail is also revised to show the ditch invert and pipes are the same	Closed				
14	RJM	CU-101		Provide a detail for the 50mm outdoor water connection, it appears to go into the drainage ditch.	A	The 50mm outdoor water line relocated to have not conflict with drainage ditch.	Open: provide a detail of the 50mm connection. Is it buried? Is it in a hand hole? Does it project above ground and have protection from damage? This must be identified.	50mm water connection is an underground utility per note 6 on that sheet and per detail #3 on sheet CU-501.	Open: The treatment of the proposed connection is not identified. Provide a detail for the connection showing the final disposition of the connection. What is shown on the plans appears to be a buried valve.				
15	RJM	CU-101		Provide lateral location for the water line and sewer line west of the building. It appears that these lines will conflict with the proposed drainage ditch and bollards.	A	waterline and sewer line adjusted to have not conflicts with drywell and Bollards. Please refer to sheet CU-101.	Open: the paved ditches are not show in the correct location per the dimensions on sheet C-03. Per those dimensions, the west ditch will be in the dirt road and will conflict with the proposed sewer line and the east ditch will touch the wall of the mosque. Coordinate the location of the ditches with the provided dimensions and the other proposed utilities.	The referenced sheet is revised to match the actual distance.	Closed				

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
CIVIL COMMENTS													
16	RJM	CU-102	Plan	The proposed invert for the sewer pipe will not allow for the minimum cover required by Note 6. considering the 5% slope away from the building and the actual diameter of the pipe reduces the available cover to around 0.60m.	A	Sewer plan and profile revised to ensure all sewer pipes be covered at least 0.8m. Per revised sewer profile pipe invert at building out (B. OUT), is per note 6. Please refer to sheet CU-102.	Open: based on the 5% slope away from the building and the contours provided, the finish grade of M-1 and CO-1 are incorrect and the pipe invert must be set lower.	Finish grade elevations of M-1 and CO-1 have been revised per provided contour. Refer to sheet CU-101. Pipe Insulation has been shown for sections of underground pipes with less than 800 mm covering.	Open: The proposed sewer pipe will conflict with the grout and riprap of the paved ditch. Provide a detail for the treatment of the pipe and the ditch where the pipe crosses under the ditch.				
22	RJM	Design Analysis		The analysis calculates the capacity of the channel, but this capacity is based on the channel being able to discharge the water downstream. Demonstrate that the drywells are able to infiltrate at a rate capable of removing the water as fast as it enters the ditch or that the total storage capacity of the system is sufficient to contain the entire storm.	A	Percolation test is attached to design analysis. Bases on the result of the test, the size and number of the dry wells are sufficient to discharge the storm water.	Open: provide calculations identifying the total volume of water and confirming that the drywells are adequately sized.	Drywells depth are greater than 6m. As per Geotechnical report, the soil type at this level is (silty gravel with sand) type with the infiltration rate of 1.6 inch/hr. The total volume of drywells is more then13m3. Considering the mentioned facts and the below calculations the proposed drywells are adequate and suitable for this particular site. Furthermore, the designer has the experience of providing drywells for the same purpose at the same job site, which are properly working.	Open: The calculations only consider the contribution from watershed WSH-1. When WSH-2 is added to the volume, the drywells are inadequate. However, it appears that the volume of the ditches may be sufficient to make up the difference. Please provide revised calculations to confirm this. It appears that volume of water from WSH-3 will exceed the will exceed the capacity of the drywell north of the building, but the ponding should be limited to the grassed area. Please confirm.				
100% Civil Design Comments													
1	NA	Specifications		Provide the following missing Specs sections in the civil portion as per UFGS : a. 33 11 00 Water distribution. b. 33 20 00 Water Well. c. 33 30 00 Sanitary Sewers. d. 33 40 00 Storm drainage utilities. e. 33 56 10 Factory fabricated fuel storage tanks. f. 03 31 29 Cast-in place concrete for civil work.	AE	Specs sections in the civil portion provided per UFGS as follow: a. 33 11 00 Water distribution. b. 33 20 00 Water Well. c. 33 30 00 Sanitary Sewers. d. 33 40 00 Storm drainage utilities not required for this project. e. Specifications for fuel storage tank will be provided along fuel system drawings in Building Package submittal. f. Section 03 31 29 is related to Marine Concrete and is not required or match this project.	Open, Specification sections are jumbled also not matching with the table of content; Section 33 11 00 and 33 40 01 have been mixed up. a1.Section 33 11 00/2.2.2.18; Liquid Chlorine should conform to AWWA B 301 and Hypochlorite, Calcium and Sodium should conform to AWWA B 300. a2. 33 11 00/1.4 ; Include SD-06 Test Report to cover Bacteriological Disinfection under this section. b1.1. Section 33 20 00/1.4; This paragraph should include SD-03 Product data to cover the followings :Well Installation Plan & Well Material .AND SD-06 Test Reports ;Well development records, Filter Pack & other related tests. b1.2. Paragraph 1.5 Quality Assurance is missed. d. The provided Specs section 33 40 01 has missed Part-1(General). e. To remain open until the required Spec section is provided. f. Provide Spec section 03 31 01 . 00 10 Cast-in-place structural concrete for civil works.						
2	NA	Specifications	General	Section -1.4: Government approval is required for submittals with a "G" designation. The contractor is required to add "G" designation for the appropriate items listed under section -1.4.	A	Corrected accordingly	Closed						
3	NA	C-01a	Fuel Tank Pad	a. Provide fuel tank and piping details. provide fuel tank pad structure details and tank anchorage to the concrete pad.	A	fuel tank and piping details, fuel tank pad structure details and tank anchorage to the concrete pad will be provided in 99% Building Package Submittal.	Open. To remain open until the required detail is provided in the building package.						

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
CIVIL COMMENTS													
4	NA	Transformer Pad		Provide structure calculation for the Transformer Pad considering weight of the Transformer	A	calculations are provided accordingly	Open. a. Footing embedment depth in the Calcs. Do not match with the drawings. b. (Ref.ED-10); coordinate PAD dimension in the plan with sections. c. Cable trench size in the plan do not match with the section. d. Indicate size and spacing of the CMU reinforcement. e. Provide callout to read " CMU cells should be fully grouted".						
5	NA	Transformer		Provide anchorage detail of Transformer to the concrete pad	A	anchoring of transformer will be according to the manufacturer instruction and catalogs.	Closed						

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
CIVIL COMMENTS													
6	WK	Page 32/114 2. Water supply system (2.1 Potable Water system)	2.1 Potable Water system	Per building manual and generally the average usage of water in Kabul is 135 liter per capita. Meantime the AUAF Women Dorms accommodate 200 female students plus support staff, while the calculation says Water Demand for dormitory= 200 Students x 120 liter/per student/day= 24,000 Liters/day	D	Per building manual, the average usage of water in Afghanistan is in the range of 120 to 170 Liters per day per capita for varies situations. And also per that reference "the design engineer should consider the situation and apply engineering judgment use the values within the range of 120- 170 liter per capita." Therefore as designer we decided to select 120 LPD per capita. Per contract, the Dormitory Building shall accommodate two hundred (200) Female Students and in compliance with IBC 2012. Potable Water System has been designed per contract.	Open The provided response is as dialog, When you agreed that the range of potable water usage in Afghanistan is (120 - 170) liter per capita per 24hours, wherefore you selected the lowest range (120liter) instead of average (≥135liter). The Dorm building accommodate two hundred (200) female students, but there will be support and facilities staff in mechanical, electrical and IT rooms that need sufficient potable water too.							
7	WK	Page 32/114 2. Water supply system (2.1 Potable Water system)	2.1 Potable Water system	According to calculation the water demand for two other buildings= 2x24,000= 48,000 Lit/day, finally the total water demand will be 3x24,000=72,000 Liters/day. So how do you found that the two other building demand is same as Dorm building?	D	Because the actual water usage for other two buildings is unknown, the demand for other two buildings has been assumed to be equivalent to dormitory water usage. this assumption is the maximum probable water usage estimation as discussed in the coordination meeting with client AUAF and USAID COR. Actual water usage may be very less than this value.	Closed If this issue was discussed and agreed by AUAF and USAID COR during a coordination meeting that you have mentioned here.						
8	WK	Page 39/114 (4.3 Quantity of Wastewater)	4.3 Quantity of Wastewater	According to calculation the quantity of wastewater will be approximately 80% of potable water usage, so based on which manual and code? According to the drawing (sheet P-105, 106 & 107) all the sewer water will go to the existing sewerage tank (24000x80/100)=19200 Liters/day, so the existing sewer tank will have not the capacity to be responsive accordingly.	D	Per "AED Design Requirements: Sanitary Sewer & Septic System", The average daily flow will represent the total waste volume generated over a 24-hour period, and is defined as 80% of the water usage rate per day. Regarding holding capacity, Per contract, Perez is required to just connect the sewer line to the existing holding tank and the holding tank has been specified by client AUAF. Perez is not responsible for the holding tank capacity.	Open In contract there is mentioned that "electrical power distribution system, water supply and sewer systems, including the associated site connections to available utility services" as general issue. But in fact the existing septic tank will has not the enough capacity to accommodate such amount of waste water that produced from 200 bed women dormitory building.						
9	RJM	Design Analysis		The geotechnical report is provided, but calculations regarding the total amount of water collected or the ability of the drywells to dissipate the water rapidly enough to avoid flooding of the site have not been provided.			Open: Using the calculated infiltration of 0.0175 cum/10 min, it will take more than 4.5 days to dissipate the water from WSH-1. Adding in the water from WSH-2 increases the dissipation period to 7.5 days. Should a subsequent rainfall occur within this period, the ditches and drywells may not have adequate capacity to contain the water. The calculations do not identify the designer or checker.						
10	RJM	C-01a		Provide usable layout information on the layout plan. A dimension from the face of a Hesco barrier is not adequate for the layout of a building. The coordinate information provided on sheet C-02 or dimensions to project benchmarks would be better for location of the structure.	A	The provided dimensions in this plan will not be used to layout the building or structure. Furthermore, to avoid confusion a note is added in the site layout plan to make sure the contractor do not use these dimensions to layout the building or structure. To layout the building we will use the provided point tables on the sheet C-03.	Closed						
11	RJM	C-02		Provide a detail for the grouted rip-rap from the roof drains to the paved ditch.	A	The requested detail for Rip Rap is provided accordingly.	Closed						
12	RJM	C-02		Provide inverts for the drainage handholds and for the drain pipes entering the drywells. Confirm that the pipes will not conflict with the communication or electrical lines.	A	Inverts for drainage handholds and the road drainage pipes entering the drywells are provided. The designer confirms that the drainage pipes will not conflict with the utility pipes.	Closed						
13	RJM	C-04		The drainage handholds are shown as grates, but the detail has a solid concrete cover. Please coordinate.	A	The drainage handholds are shown in the plan and details are coordinated accordingly.	Closed						
14	RJM	C-04	Scales	Provide a 1:150 bar scale for the plan view. The 1:10 bar scale does not match the details.	A	1:150 scale bar is provided accordingly.	Open: The provided bar scale does not match the dimensions on the plan view.						

WO-LT-0082 AMD 1 AUAF Women's Dormitory
100% Civil Partial Design Resubmittal Review Comment Sheet
27-April-2016

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
CIVIL COMMENTS													
15	RJM	C-05	Scales	The bar scales do not match the details.	A	Corrected to revised to match the details	Closed						
16	RJM	C-05a	Scales	The bar scales do not match the details.	A	Please refer to response to comment no. 15	Open: the labelling of the 1:5 bar scale is incorrect, it should read 0, 100, 200, 300, 400, 500.						
17	RJM	C-05a	Det C	Coordinate the detail with the plans. The invert at the drywells indicate a much greater invert than the 150mm shown in the detail.	A	the drawings are reviewed accordingly	Closed						
18	DCG	CU-102 and CU-502	9	Sewer inlet pipe on CU-102 Site Sanitary Sewer System profile shows pipe connecting to vent on holding tank but CU-502 shows elbow connection into holding tank top. Coordinate between both details.	A	Sewer System profile on CU-102 updated to match detail on CU-502 for pipe connection.	Closed						
19	DCG	Specs		Specs are missing for Water Wells, Storm Drainage Utilities, Sanitary Sewers and Water Distribution	A	Specs for Water Wells, Sanitary Sewers and Water Distribution have been added to the specifications	Closed						
Revised 100% Civil Design Comments													
1	WK	Solid waste management	Hygienic Issue (sanitation)	Nothing mentioned about special washrooms attached with incinerator to fire up wasted Kotex that throw away by female students during Menstruation period. This is **women'** dormitory building and such kind of precautions are essential to be considered									

Response Legend
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Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
ELECTRICAL COMMENTS													
65% Review Comments													
25	RNS	ED-08	Transformer pad	Contractors responsible to provide transformer pad drawings section, plan, dimension and pad mounted transformer details with all section views.	A	Please refer to sheet ED-10 all details regarding transformer pad is added	Open The transformer details, plans and elevations are not added in the site design development plans neither in the complete electrical package.	For information regarding dimension and shape of transformer refer to the ED-08. But other information about transformer will be submitted in its catalogue.	Open That sheet balance to Pat of transformer, not dimension of transformer, please prepare spread sheet for transformer and show the all dimension of transformer	Added , please refer to the drawing ED-08	Open Add a title for each section in these drawings and say which side did you show? (side view, in front view and top view), and arrange the drawings too.	Added, all side have shown and arranged.	Closed
65% Resubmittal Review Comments													
1	RNS	CS-E-02	Single line diagram	1. Show the details of (800 KVA transformer, 630A Circuit Breaker, 1600A Circuit Breaker, 80A Circuit Breaker) and specification for all of these. 2. Show the single line diagram of sprinkler system and provide schematics diagram for motors control system. 3. How you connected sprinkler system to the bushing of transformer? Please move it from there and connect it to the MDB. 4. Show the single line diagrams of surge arresters SDP and Well Pump SDP with specifications. 5. Add (pad mounted) in the transformer. 6. Please replace the line with continuous line and add the IP of MDB, MDP and spics. 7. Please Specify the location of exterior lights Panel. for more details see drawings	A	1. 800 KVA Transformer, 50 Hz, type of cooling: Onon, winding connection DYN-11, 630 A, four position load breaker, low voltage, breaker is MCCB 1600 A, 3pole. 2. Single line diagram and control system of sprinkler system will be provided by supplier of fire sprinkler system, along with fire sprinkler system submitted. 3. Applied. 4. Applied. 5. Applied. 6. Applied. 7. It will be next to MDB.	**Open** **1.** add these information to the Site design analysis also. **4.** Explain the single line diagram of surge arrester. **6.** Dash line of MDP & MDB didn't changed.	1. Applied. 4. Information about surge arrester added in design analysis, Grounding and Bonding. 6. Applied.	**Open** 4. Please clarify the Surge arrestor single line diagram, it doesn't make sense.	Surge arrester single line diagram provided in sheet CS-E-02 and also the specification with detail information has been included in design analysis.	**Open** Please specify the ratting of all breakers in surge arrester single line diagram.		
3	RNS	CS-E-101	Electrical site plan	Hand hole of No.#8 is it existing?		It is new.	**Open** Change the symbol of Existing to the new symbol of Hand hole	Applied.	Open It's not edited yet	The handhole symbol is edited accordingly	**Closed**		
99% Electrical Design Comments													
1	DJS	CS-E-102	Legend	Coordinate light fixture wattage and lamp type with Electric Pole Elevation and Schematic-Single 220V Luminaries Light Pole Wiring on drawing ED-11, correct the spelling of fluorescent.	A	Applied.	Drawing CS-E-01 Legend, delete"(2x36)w" from outdoor metal halide light fixture legend. Drawing ED-11, detail 2, delete "150w, HPS"	The referenced legend is edited accordingly.	**Closed**				
10	RJM	ED-04	Section A	Section should note 1m depth of conductor from building to match note on CU-101.	A	Edited, It is 80 cm.	**Open:** the note on sheets CU-101 & CS-E-101 still calls for 1m depth.	The note on the referenced sheets has been edited accordingly.	**Open:** Callout on Sheet CU-101 still refers to 1m depth.				
11	RJM	ED-05	Grounding Installation Details	Revise Note 3 to reference depth of conductor of 1m noted on sheet CU-101.	A	Edited, It is 80 cm.	**Open:** the note on sheets CU-101 & CS-E-101 still calls for 1m depth.	The note on the referenced sheets have been edited accordingly.	**Open:** Callout on Sheet CU-101 still refers to 1m depth.				
12	RJM	ED-08		Provide north arrow to assure correct orientation of concrete pad. Label manhole and hand hole consistent with sheet CS-E-101	A	Edited.	**Open:** the callout for the manhole and handhole are reversed per the plan information.	The callouts for the manhole and handhole are revised and corrected accordingly.	**Closed**				
15	RNS	CS-E-02	single line diagram	**1.** Grounding conductor size of 70mm2 should be 35mm2 not 25mm2. **2**. Please add the schematic diagram for Well pump. **3.** What is SPD in the surge arrester single line diagram? **4.**Explain the single line diagram of surge arrestor it's Understandable. **5**. Does it require to have surge arrester in both panels?	A	1. Edited . 2. Added in CS-E-02. 3. Surge Protection Device. 4. Yes. 5. It is one surge arrester, Edited.	**OPEN** 1. Please don't replace 50mm ground conductor with 35mm, replace it with 25mm. 4. Please clarify the Surge arrestor single line diagram, it doesn't make sense.	1. The general conductor is replaced with 25mm ground conductor accordingly. 4. Revised and detail surge arrester single line diagrams provided for more clarification.	Open 1. Add all symbols it used in this single line diagram to the legend. 2. And provide the drawing of MV disconnect switch indoor, 3poles, 20kV, 630A with details, and clarify witch kind of switch is this. 3. Add the rated of circuit breaker of transformer#3. 4. In design analysis in Power Substation you mentioned 1600A Circuit breaker and 80A Circuit Breaker but, in single line diagram it's defriend.				
16	RNS	CS-E-102	Electrical Exterior Lighting plan	Please specify the single line diagram of exterior lighting, Show the connection load, where they feed.	A	Showed, it feed from MDB.	**OPEN** The exterior lighting Total load according to the drawing is 700W, but the single line diagram shows each circuit, 1=150VA, 2=100VA and 3=100VA, please clarify it	Single line diagram for exterior lights is revised.	**Open** Please provide the Panel schedule for exterior lighting, specify the rating of each light VA, change the P to S and specify the location of exterior lighting panel in exterior lighting plan.				
17	RNS	CU-101	Site Utility plan	**1.** Please provide the details of crosses the Sewer line, MV/EL voltage line, Existed water line and Existed Electrical line . **2.** Please provide the details of crosses the Sewer line, COM and EL voltage line.	A	Details added, Refer to the drawing ED-09.	**OPEN** Add number of this page (CU-101) as a reference in the title drawing of page ED-09.	Reference is added in the mentioned sheet.	**Closed**				
18	RNS	CU-102	Site water & sanitary sewer systems plan	**1.** Please provide the details of crosses the Sewer line and Existing Electrical line. **2.** Please provide the details of crosses the Sewer line and Existing Electrical line.	A	Details added, Refer to the drawing ED-09.	**OPEN** Add number of this page (CU-102) as a reference in the title drawing of page ED-09.	Reference is added in the mentioned sheet.	**Closed**				

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
ELECTRICAL COMMENTS													
19	RNS	ED-11	Exterior light and Pole detail	**1.** Change the Title of this page, it's not Electrical Manhole details. **2.** Clear the lighting fixture light watts, is it 150W or 60W or 50W which one is correct.	A	1.Edited. 2.Edited.	**OPEN** **2.** It isn't edited yet (in the electrical pole elevation shows 100W, but in schematic SLD it shows 150W), Please correct it.	The referenced is corrected accordingly.	**Closed**				
20	RNS	CS-E-101	Electrical Site Plan	**1.** Please clear this grounding system, it's for hand hole or for MDB, we don't need this 4 ground rod for hand hole, it should be for MDB. **2.** Please consider a circuit breaker for the MV cable according to the standard codes and show its connection and specification in the SLD.	A	1. It's from MDB, just passed Hand hole. 2. Added, Refer to the drawing ED-10.	**OPEN** **2.** Please consider the SLD of MV cable connected to the Transformer #2, its not need to draw a separate SLD for connection of MV cable, just showed in the SLD of page #CS-E-02 and in the site utility plan page #CU-101, (show, how you connect MV cable from existing tower #2, show the disconnect switch with details) it should be shown in the site utility plan and in the SLD.	The MV cable connection is shown in single line diagram sheet CS-E-02 and connection is also shown in the site utility plan. Please refer to CU-101 & CS-E-101.	**Closed**				
21	RNS	ED-05	Electrical Grounding Rod system Details	**1.** According sheet No ED-08, the pad of Transformer is 4000mm but in this page its 20000mm, explain the dimension. **2**. Add in the details of this sheet (Transformer Grounding Rods system plan)	A	1. Applied. 2. Added.	**OPEN** **2.** Please change the title of this page from (Grounding rod system) to Transformer Grounding System.	The title is changed to transformer grounding system.	**Closed**				
22	RNS	ED-03	Electrical & Communication Pit details	Please show the references, which section is this.	A	The referenced detail is revised.	**OPEN** The details you provided in drawing ED-03 doesn't shows which section are they belong, please specify the related section.	The related section are specified in the referenced sheet accordingly.	**Closed**				
100% Electrical Design Comments													
1	RNS	ED-08	Transformer station #3 detail	Add a title for each section in these drawings and say which side did you show? (side view, in front view and top view), and arrange the drawings too.	A	The drawings are revised to clearly indicate the sections and views in the mentioned sheet.	Open The contractor should finalize the installation of transformer with DABS and the drawing should be revised as per final decision made between contractor and DABS.						
2	RNS	ED-04	Electrical grounding detail	**1.** Please change the title (Electrical Grounding Detail) to MDP Grounding System and details. **2.** In this page in the left hand drawing (Exothermically Welded Cable to ground rod) is not acceptable. because detail A is not match to the ground rod system plan, and Exothermal welded #1, #2 and #3 are not used here, please provide that detail are used, provide this type welded (T type two ways with angle Exothermal Welded and X type or three ways Exothermal Welded).	A	1. Revised accordingly the title has changed from electrical grounding detail to MDP grounding system. 2. T shape types, two ways with angle exothermal welded and x type or three ways exothermal welded details are provided accordingly.	**Closed**							
3	RNS		General	Please provide a separate sheet for grounding system, and show all the grounding on that sheet.	A	An overall grounding system has been provided as requested. Please see sheet ED-05.	**Closed**						
4	RNS	ED-09	Trenches and section detail	Please add title for each trenches section details in this page.	A	Titles for each trench section is provided and arranged as required.	**Closed**						
6	RNS	ED-05	Electrical Grounding Rod System Details	In this page in the left hand drawing (Exothermically Welded Cable to ground rod) is not acceptable. because detail A is not match to the ground rod system plan, and Exothermal welded #1 and #3 are not used here, please provide that details are used, provide this type welded (T type two ways with angle Exothermal Welded and X type or three way Exothermal Welded).	A	T Shape Type, two ways with angles, exothermal welded and three way exothermal welded details are provided to match the ground rod system plan.	**Closed**						
7	RJM	ED-01/ED-02	Details 6 & 7	The details are labelled as Section A-A, correct titles.	A	Sheet ED-01 and ED-02 are revised and corrected.	**Closed**						
8	RJM	ED-01/ED-03	General	Increase the size of some dimension text for readability and to conform with the rest of the sheet.	A	Size of texts and dimensions are revised to be readable unique.	**Closed**						
9	RJM	ED-08		The plan view of the transformer shown on the pad does not match the size or shape of the transformer shown to the left.	A	Appropriated dimensions are provided to make sure the details are corrected and match what is in the plan.	**Closed**						
10	DJS	CS-E-02	Single Line Diagram	Fix graphics of the future spares in the MDP	A	Applied, Edited please refer to the drawing.	**Closed**						
11	DJS	CS-E-02	Surge Arrestor Single Line Diagram	Correct spelling of **Lightning** Current	A	Lightning spelling is corrected accordingly.	**Closed**						
12	DJS	CS-E-02	Legend	The M.S should be a magnetic switch, not a manual switch.	A	Term is corrected accordingly.	**Closed**						
Revised 100% Electrical Design Comments													
1	RNS	ED-10	Transformer Pad structure Details	Remove the MV single line diagram from this page.									

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check
		Page	Detail				
COMMUNICATION COMMENTS							
100% Review Comments							

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check
		Page	Detail				
FIRE PROTECTION COMMENTS							
100% Review Comments							

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response
		Page	Detail					
MECHANICAL COMMENTS								
100% Review Comments								

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail										
PLUMBING COMMENTS													
65% Review Comments													
44	MA	CU-502		Show chlorine dosing assembly equipment parts as chlorine mixing tank and dosing pump	A	Chlorine dosing assembly equipment parts shown as chlorine mixing tank and dosing pump. Refer to sheet CU-501.	OPEN (it was not found in the civil site development partial design submittal)	Manufacturer catalog and product data has been provided in Utility Design analysis for chlorine dosing assembly equipment parts as chlorine mixing tank and dosing pump.	Open. We could not find the Chlorine dosing in the design analysis.	Manufacturer catalog and product data has been provided in Utility Design analysis for chlorine dosing assembly equipment parts as chlorine mixing tank and dosing pump.	Open (the catalogue was found in the Utility Design Analysis but the capacity for the dosing tank and pump is not available in the drawings and no calculation is done for chlorine system in the Design Analysis	The capacity for the dosing tank and pump has been provided on drawing sheet CU-501 per calculations in the Design Analysis for chlorine system. The model has been selected and shown on the catalog.	OPEN There is no calculations in the Design Analysis for chlorine system except it has been highlighted in the catalog. For the Design Analysis of chlorination system some input data is required such as water pollution, etc. Please provide the data accordingly.

Comment #	Reviewer	Reference		Review Comment	Perez Response Legend	Perez Response	Back-Check	Perez Response	Back-Check	Perez Response	Back-Check
		Page	Detail								
STRUCTURAL COMMENTS											
65% Resubmittal Review Comments											
3	APL	Water Well Calculations		Design calculations should be provided for the top and bottom slab and wall calculations should take into account the design of rectangular tank horizontal rebar for forces.	A	Calculation is provided for the slab, it is a vault not a tank. Please refer to Utility Design Analysis section 5. Structural Water Well Vault Analysis and Calculations.	Open. Is the intent that the vault be designed for seismic?	Since its and underground structure and there is no movement due to above ground height and a zero base shear so no need for considering seismic.	Open: the tank walls will see an increase in lateral earth pressure during a seismic event. If the water supply to the dormitory is critical following a seismic event, then the contractor must confirm the reinforcement meets strength and cracking requirements as required by Code."		Open: The calculations provided for the wall do not include if the reinforcement meets cracking requirements as required by Code.
Revised 100% Structural Design Comments											
1	APL	Calculations, General		None of the calculations are initialed/dated by the person performing the calculations or by the person who has checked the calculations.							
2	APL	Drawing Cover		For the 100% submittal, the 3D image of the building should have been updated to reflect the 100% design (no large glazing windows in the side of the safe rooms, for example).							
3	NAV	C-05		The concrete cover on the dry well is not clear (base slab, top and bottom of precast wall sections and top slab).							
4	NAV	C-05, Detail 2		Wall vertical and horizontal bars should be 12diam.							
5	NAV	C-05, Detail 2		Wall vertical bars - Should be 15 evenly spaced bars not 8.							
6	NAV	C-05, Detail 2		Top slab not designed. If the intent is to use the bottom slab design also for the top slab, update to 12diam bars rather then 10diam.							
7	NAV	C-05, Section A		Bottom slab reinforcement not called out - should be 12diam bars each way at 400mm on center.							
8	APL	C-05, Section A		It appears that the dry well is comprised of 400mm high precast sections which are not connected to each other or the base slab or the top slab. Confirm.							