

**30% Design Review**  
**KABUL POWER PLANT FACILITY - NLCC BUILDING**  
**drawings dated July 29, 2010**  
**WO-A-0054**

<u>Excel Worksheet</u> <u>Name</u>	<u>Description</u>	<u>Printed Page Number</u>
Index Sheet	Excel Workbook Index	1
Architectural	Architectural Drawing Comments	
Civil	Civil Drawing Comments	
Structural	Structural Drawing Comments	
Mechanical	Mechanical Drawing Comments	
Plumbing	Plumbing Comments	
Electrical	Electrical Drawing Comments (Includes Technology and Communication)	18-20

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Response Legend  
A - Agree  
D - Disagree  
O - Out of Scope  
AE - Agree with exception

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
<b>ELECTRICAL COMMENTS - NLCC Building</b>						
E-1	E. Needham	General	Check all sheets for typos/mis-spelling.			
E-2	E. Needham	General	No calculations were provided for review other than lighting.			
E-3	E. Needham	G-007	Details 01 and 03 both indicate mounting of light switches. Revise 01 to indicate mounting of receptacles and data outlets.			
E-4	E. Needham	G-007	Provide support of fixtures directly from building structure. Indicate wire or jack chain from two corners of fixture.			
E-5	E. Needham	G-010	Detail 04 - Should WP outlet be GFCI?			
E-6	E. Needham	G-010	Detail 05 - Does this detail apply. The scope appears to be covered by detail 04.			
E-7	E. Needham	G-010	Detail 06 appears to be mis-labeled.			
E-8	E. Needham	G-011	Detail 02 - Consider using RGSC for conduit stub-ups through the slab.			
E-9	E. Needham	G-012	Detail 01 indicates a manhole structure beneath the pad. Will there be access into the manhole? Consider referencing the manhole detail.			
E-10	E. Needham	C-101	Consider adding a detail for the generator pad.			
E-11	E. Needham	E-601	Will ATS-1 be 3 or 4 poles?			
E-12	E. Needham	E-601	The emergency generator should be bonded to ground.			
E-13	E. Needham	E-601	NLCC-MDP should be bonded to ground. Do not bring the ground conductor in with the service conductors from the ATS.			
E-14	E. Needham	E-601	Will MDP be provided with any additional spares or spaces?			
E-15	E. Needham	E-602	Consider deleting the Power Riser Diagram from this sheet. This information should all be contained in the riser diagram on sheet E-601. Similar for E-602, E-603, E-604.			
E-16	E. Needham	E-106	Provide emergency lighting at the exit discharges from the building.			
E-17	E. Needham	E-106	Provide emergency, exit and exit discharge lighting for rooms F20 and F22.			
E-18	E. Needham	E-106	Provide emergency lighting for F24.			
E-19	E. Needham	E-106	Consider adding emergency lighting in toilet rooms F05 and F06.			
E-20	E. Needham	E-106	Consider adding emergency lighting in room F10.			
E-21	E. Needham	E-106	Coordinate lighting layouts in F05 and F06 with the architecture. Do the stall walls go to the ceiling?			
E-22	E. Needham	E-106	Are 6 individual dimmer switches required in F09?			
E-23	E. Needham	E-107	The exterior outlets should be indicated as WP.			
E-24	E. Needham	E-108	Numbered Note 7 - How will these circuits/cable be run? Under floor or over head?			

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E-25	E. Needham	E-109	Outlet and circuit for AHU is also shown on sheet E-108. Consider deleting from there. Also, consider adding a second outlet to allow both units to be connected/used.			
E-26	E. Needham	E-112	The ground for the FACP should be run to the panel feeding the FACP.			
E-27	E. Needham	E-112	Numbered Note 6 is missing.			
E-28	E. Needham	F-110	Provide a smoke detector at the FACP.			
E-29	E. Needham	F-110	Does the occupancy/use of any of these rooms require an A/V device? Example - F07, F19. Are these offices?			
E-30	E. Needham	F-110	Review the spacing of A/V devices. F10 may require additional devices to meet minimum NFPA requirements for candela rating.			
E-31	E. Needham	F-110	On the riser diagram the A/V devices should be shown on a separate loop from the initiating devices.			
E-32	E. Needham	T-111	Does room F18 require a T/D outlet?			
F-32	E. Needham	T-111	Is it the intention to run all of the T/D cabling back to the Comm panel in individual conduits? Can cables be run above ceilings without conduit?			