



BOQ Review
VISITOR GUARD HOUSE – BUILDING 8
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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

<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.5.5	Check quantity, TT calculated 28 SM.			
A-2	KCB	SN 1.5.7	Why isn't this quantity the same as the attic floor area (roughly 146SM)?			
A-3		SN 1.5	Estimate is missing metal flashings.			
A-4	KCB	SN 1.6.2	There is no type D shown on the drawings.			
A-5	KCB	SN 1.6.3	There are 2 type C doors shown on the schedule.			
A-6	KCB	SN 1.6.7	The quantity should be 11.			
A-7	KCB	SN 1.6.8	The quantity should be 7.			
A-8	KCB	SN 1.6.9	The quantity should be 7.			
A-9	KCB	SN 1.6.10	The quantity should be 0.			
A-10	KCB	SN 1.6.11	The quantity should be 3.			
A-11	KCB	SN 1.6.12	The quantity should be 1.			
A-12	KCB	SN 1.6	Estimate is missing Hardware set HW03 - quantity 3.			
A-13	KCB	SN 1.7.2	Check quantity, TT calculated 18 SM.			
A-14	KCB	SN 1.7.3	Check quantity, TT calculated 27 M.			
A-15	KCB	SN 1.7.4	Check quantity, TT calculated 115 SM.			
A-16	KCB	SN 1.7.5	Check quantity, TT calculated 150 SM.			
A-17	KCB	SN 1.7.6	Check quantity, TT calculated 73 SM as only room 010 and 011 are listed on the finish schedule.			
A-18	KCB	SN 1.7.8	The quantity should be 9.			
A-19	KCB	SN 1.7.10	The quantity should be 7.			
A-20	KCB	SN 1.7	Estimate is missing wall tile.			
A-21	KCB	SN 1.8	Estimate is missing 5 full length mirrors.			
A-22	KCB	SN 1.8.1	The quantity should be 3.			
A-23	KCB	SN 1.8.2	The quantity should be 2.			
A-24	KCB	SN 1.8.3	The quantity should be 2.			
A-25	KCB	SN 1.8.4	The quantity should be 6.			
A-26	KCB	SN 1.8.5	The quantity should be 1.			
A-27	KCB	SN 1.8.6	This item should be toilet seat cover and toilet tissue dispenser.			
A-28	KCB	SN 1.8.7	The quantity should be 3.			
A-29	KCB	SN 1.8.9	There aren't any of these shown on the drawings but 3 are needed.			
A-30	KCB	SN 1.8.11	The quantity should be 30.			
A-31	KCB	SN 1.8.12	If the quantity was 25 that would cover all the windows.			
A-32	KCB	SN 1.8.12	Spec section 12 21 13 was not included in the 100% documents.			
A-33	KCB	SN 1.8.13	Entrance mats are not shown on the drawings and spec section 12 48 13 was not part of the 100% documents.			
A-34	KCB	SN 1.8.14	Spec section 06 10 00 was not included in the 100% documents.			
A-35	KCB	SN 1.8.15	This quantity can't be fully checked as drawing A-410 was missing from PDFs.			
A-36	KCB	SN 1.8.16	Check quantity , TT calculated 5 M.			
A-37	KCB	SN 1.8.18	Per drawing LS-101 there should be 4 fire extinguishers in the estimate.			



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A-38	KCB	SN 1.8.19	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-39	KCB	SN 1.8.20	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-40	KCB	SN 1.8.21	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
MECHANICAL COMMENTS						
M-1	RHM	SN-1	EF-3 in-line fan missing from BOQ.			
M-2	RHM	SN-3	BOQ specifies 130.00 meters of 20mm (3/4") copper pipe and insulation. Actual length is closer to 170 meters.			
M-3	RHM	SN-7	BOQ specifies (3) E1, 150x150 (6x6) exhaust grilles. Actual quantity is (6).			
M-4	RHM	SN-10	BOQ specifies (2) FT-2, 1220mm hot water fin tube radiators. Actual quantity is (3).			
M-5	RHM	SN-5	Include line item for building incoming water detail 2 on drawing 2 M-501.			
M-6	RHM	SN-6	BOQ specifies 0.32 square meters of louver. Actual area shown on detail 2, 8 A201 is substantially larger. Cost appears low for these two louvers. Does the cost also include the blank off panels?			
M-7	RHM	SN-8, 9, and 10	Note that ball valves and control valves are priced separately but balancing and drain valves and unions are not. Does finned tube radiation cost include these extra hydronic specialties? Note SN-12 \$493 for TAB does not appear to cover the cost of both the valves and the TAB labor - please confirm.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
PLUMBING COMMENTS						
P-1	DCG	PN 1.9 1	Lavatories indicated on plans are wall hung not counter mounted.			
P-2	DCG	PN 1.9 2	Plans indicate one eastern style and one floor mounted, tank type. BOQ lists two eastern style.			
P-3	DCG	PN 1.9 6	RPZ backflow preventer should be 50mm not 40mm as indicated.			
P-4	DCG	PN 1.9 21	Floor drain quantity is wrong. Should be 5 floor drains.			
P-5	DCG	PN 1.9 28	Unit price appears low for trenching and backfilling.			
P-6	DCG	PN 1.9	Estimate is missing one (2) level drinking fountain.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ELECTRICAL COMMENTS						
E-1	DJS	SN 1.11.2	TT's estimated quantity is 13 not 16.			
E-2	DJS	SN 1.11.3	TT's estimated quantity is 7 not 3.			
E-3	DJS	SN 1.11.4	TT's estimated quantity is 2 not 4.			
E-4	DJS	SN 1.11.5	TT's estimated quantity is 2 not 4.			
E-5	DJS	SN 1.11.6	TT's estimated quantity is 3 not 2.			
E-6	DJS	SN 1.11.10	TT's estimated quantity is 6 not 9.			
E-7	DJS	SN 1.11.11	TT's estimated quantity is 0 not 2.			
E-8	DJS	SN 1.11.12	TT's estimated quantity is 0 not 4.			
E-9	DJS	NEW	Light fixture type F4E, qty. 4			
E-10	DJS	NEW	Light fixture type F5, qty. 3			
E-11	DJS	NEW	Light fixture type F5E, qty. 4			
E-12	DJS	SN 1.11.15	TT's estimated quantity is 11 not 7.			
E-13	DJS	SN 1.11.25	TT's estimated quantity is 4 not 8.			
E-14	DJS	SN 1.11.26	TT's estimated quantity is 0 not 2.			
E-15	DJS	SN 1.11.28	TT's estimated quantity is 50 not 15.			
E-16	DJS	SN 1.11.29	TT's estimated quantity is 120 not 60.			



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COMMUNICATIONS COMMENTS						
C-1	JLB	SN34	Incorrect spec sections referenced.			
C-2	JLB	SN35	Incorrect spec sections referenced.			
C-3	JLB	General	No line items for communications racks patch pannels or fiber optic cabling.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
FIRE ALARM COMMENTS						
FA-1	DJS	N/A	No comments.			

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
STRUCTURAL COMMENTS						
S-1	FRS	SN 1.2 2 Wall Ftg Conc	Value of 14m ³ appears low, please verify.			
S-2	FRS	SN 1.2 5 Wall Ftg Conc	Value of 7m ³ appears low, please verify.			
S-3	FRS	SN 1.3 3 Block Walls	Value of 89m ² appears low, please verify.			
S-4	SPD	SN 1.1 1	Excavation quantity was calculated at 224m ³ by TT; 70.00m ³ appears low, please verify.			
S-5	SPD	SN 1.1 2	Backfill quantity was calculated at 168m ³ by TT; 49.00m ³ appears low, please verify.			
S-6	SPD	SN 1.1 3	Spoil quantity was calculated at 56m ³ by TT; 21.00m ³ appears low, please verify.			



Design Review
BUS SHELTER – BUILDING 18
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<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
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Communications	Communications Comments	6
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Structural	Structural Drawing Comments	8



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BUS SHELTER – BUILDING 18
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WO-LT-0004

Response Legend
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.5.1	Not able to verify this quantity as it is not defined on the drawings.			
A-2	KCB	SN 1.5.2	Not able to verify this quantity as it is not defined on the drawings.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
MECHANICAL COMMENTS						
M-1	RHM	n/a	There is no mechanical / HVAC work for this open structure.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
PLUMBING COMMENTS						
P-1	DCG	n/a	There is no plumbing work for this open structure.			



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ELECTRICAL COMMENTS						
E-1	DJS	SN 1.7	No comments.			



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COMMUNICATIONS COMMENTS						
C-1	JLB	n/a	No communications scope in this building.			



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FIRE ALARM COMMENTS						
FA-1	DJS	N/A	No comments.			

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STRUCTURAL COMMENTS						
S-1	NV	SN 1.2 3 SOG Conc	Slab limits not shown on drawings - verify quantity.			
S-2	SPD	SN 1.1 1	Excavation quantity was calculated at 132m ³ by TT; 40.00m ³ appears low, please verify.			
S-3	SPD	SN 1.1 2	Backfill quantity was calculated at 99m ³ by TT; 28.00m ³ appears low, please verify.			
S-4	SPD	SN 1.1 3	Spoil quantity was calculated at 33m ³ by TT; 12.00m ³ appears low, please verify.			



BOQ Review
CAMPUS ACCESS CONTROL – BUILDING 21
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<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
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Fire Alarm	Fire Alarm Comments	7
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BOQ Review
CAMPUS ACCESS CONTROL – BUILDING 21
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
A - Agree
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.5.2	The quantity seems high. TT calculated closer to 25 SM.			
A-2	KCB	SN 1.6.2	Delete the word Pair, item is referring to single doors.			
A-3	KCB	SN 1.6.5	List the hardware sets as has been done for other buildings. (1) HW01 and (1) HW06.			
A-4	KCB	SN 1.6.10	Check quantity, TT calculated closer to 9 SM.			
A-5	KCB	SN 1.6.11	Check quantity, TT calculated closer to 5 M.			
A-6	KCB	SN 1.7.2	Check quantity, TT calculated 132 SM.			
A-7	KCB	SN 1.7	Estimate is missing painting of hollow metal doors and frames.			
A-8	KCB	SN 1.7	Estimate is missing acrylic wall coating.			
A-9	KCB	SN 1.8.2	Entrance mats are not shown on the drawings and spec section 12 48 13 was not part of the 100% documents.			
A-10	KCB	SN 1.8.5	Per drawing LS-101 there should be 3 fire extinguishers in the estimate.			
A-11	KCB	SN 1.8.6	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-12	KCB	SN 1.8.7	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			



BOQ Review
CAMPUS ACCESS CONTROL – BUILDING 21
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WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
MECHANICAL COMMENTS						
M-1	RHM	SN-1	BOQ specifies 206.00 meters of 20mm (3/4") copper pipe and insulation. Actual length is closer to 50 meters.			
M-2	RHM	SN-2	Include line item for building incoming water detail 2 on drawing 21 M-501			
M-3	RHM	SN-3 and 4	Note that ball valves and control valves are not priced separately like other buildings, balancing and drain valves and unions are not either, and unit price is the same as at the other buildings. Does finned tube radiation cost include these extra hydronic specialties? Note SN-6 \$263 for TAB does not appear to cover the cost of both the valves and the TAB labor - please confirm.			



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CAMPUS ACCESS CONTROL – BUILDING 21
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
PLUMBING COMMENTS						
P-1	DCG	n/a	There is no plumbing for this structure.			



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CAMPUS ACCESS CONTROL – BUILDING 21
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ELECTRICAL COMMENTS						
E-1	DJS	SN 1.10.12	TT's estimated quantity is 100 not 500.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
COMMUNICATIONS COMMENTS						
C-1	JLB	SN15	16mm EMT conduit is smaller than the minimum conduit allowed by the specifications and drawings.			
C-2	JLB	SN16	Incorrect specification referenced.			
C-3	JLB	SN17	Incorrect spec referenced and there were no CATV specs provided. No details were given regarding CATV on drawings either. It would take at least two F connectors to complete the link.			
C-4	JLB	SN18	Incorrect specification referenced.			
C-4	JLB	SN19	Incorrect spec referenced and there were no CATV specs provided. No details were given regarding CATV on drawings either.			
C-7	JLB	General	No line items for communications racks patch pannels or fiber optic cabling.			



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CAMPUS ACCESS CONTROL – BUILDING 21
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
FIRE ALARM COMMENTS						
FA-1	DJS	N/A	No comments.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
STRUCTURAL COMMENTS						
S-1	FRS	SN 1.2 5 Roof Beam	Value of 4.5m ³ appears low - please verify.			
S-2	FRS	SN 1.4 2 Roof Beam	Value of 14 to be increased to 16 based upon design review comments.			
S-3	DJS	21 S-102	The ceiling hatch opening location is not in the same location as in the architectural drawing.			
S-4	SPD	SN 1.1 1	Excavation quantity was calculated at 168m ³ by TT; 57.00m ³ appears low, please verify.			
S-5	SPD	SN 1.1 2	Backfill quantity was calculated at 126m ³ by TT; 39.90m ³ appears low, please verify.			
S-6	SPD	SN 1.1 3	Spoil quantity was calculated at 42m ³ by TT; 17.10m ³ appears low, please verify.			



BOQ Review
EXECUTIVE OFFICE BUILDING – BUILDING 1
drawings dated NOVEMBER 3, 2010
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<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
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Communications	Communications Comments	6
Fire Alarm	Fire Alarm Comments	7
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BOQ Review
EXECUTIVE OFFICE BUILDING – BUILDING 1
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.7	Estimate is missing metal sills.			
A-2	KCB	SN 1.7.3	This item should say hardware set AHW02.			
A-3	KCB	SN 1.7.6	This quantity should be 2.			
A-4	KCB	SN 1.7.12	This quantity should be 42.			
A-5	KCB	SN 1.8.7	Check this quantity, TT calculated 900 SM.			
A-6	KCB	SN 1.8.13	This quantity should be 48.			
A-7	KCB	SN 1.8.14	This quantity should be 4.			
A-8	KCB	SN 1.8.15	Should this be called out as satin finish like buildings 2 and 3?			
A-9	KCB	SN 1.9.6	These items are hard to verify because they are not clearly shown on the drawings.			
A-10	KCB	SN 1.9.7	These items are hard to verify because they are not clearly shown on the drawings.			
A-11	KCB	SN 1.9.8	These items are hard to verify because they are not clearly shown on the drawings.			
A-12	KCB	SN 1.9.9	These items are hard to verify because they are not clearly shown on the drawings.			
A-13	KCB	SN 1.9.15	If the quantity was 171 that would cover all the windows.			
A-14	KCB	SN 1.9.15	Spec section 12 21 13 was not included in the 100% documents.			
A-15	KCB	SN 1.9.16	Entrance mats are not shown on the drawings and spec section 12 48 13 was not part of the 100% documents.			
A-16	KCB	SN 1.9.17	Spec section 06 10 00 was not included in the 100% documents.			
A-17	KCB	SN 1.9.18	Spec section 11 51 16 was not included in the 100% documents.			
A-18	KCB	SN 1.9.21	Check this quantity, TT calculated 9.6 M.			
A-19	KCB	SN 1.9.23	Per drawing LS-101 there should be 4 fire extinguishers in the estimate.			
A-20	KCB	SN 1.9.24	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-21	KCB	SN 1.9.25	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-22	KCB	SN 1.9.26	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			



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EXECUTIVE OFFICE BUILDING – BUILDING 1
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MECHANICAL COMMENTS						
M-1	RHM	SN-8	Include line item for building incoming water detail 2 on drawing 1 M-502.			
M-2	RHM	SN-10	Does this cost include blank-off panels?			
M-3	RHM	SN-19 and 20	Note that ball valves and control valves are priced separately but balancing and drain valves and unions are not. Does finned tube radiation cost include these extra hydronic specialties? Note SN-22 \$2209 for TAB does not appear to cover the cost of both the valves and the TAB labor - please confirm.			
M-4	RHM	SN-21	Controls cost appears appropriate for full DDC system and is excessive for the detailed and specified self contained thermostatic control valves.			



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PLUMBING COMMENTS						
P-1	DCG	SN 1.10 25	Unit cost appears low for floor drains.			
P-2	DCG	SN 1.10 33	Unit cost appears low for trenching and backfill.			



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ELECTRICAL COMMENTS						
E-1	DJS	SN 1.12.4	TT's estimated quantity is 134 not 143.			
E-2	DJS	SN 1.12.7	TT's estimated quantity is 0 not 2.			
E-3	DJS	SN 1.12.8	TT's estimated quantity is 30 not 42.			
E-4	DJS	SN 1.12.9	TT's estimated quantity is 30 not 42.			
E-5	DJS	SN 1.12.15	TT's estimated quantity is 12 not 9.			
E-6	DJS	SN 1.12.23	TT's estimated quantity is 0 not 9.			
E-7	DJS	SN 1.12.27	TT's estimated quantity is 4 not 2.			
E-8	DJS	SN 1.12.29	TT's estimated quantity is 13 not 4.			
E-9	DJS	SN 1.12.30	TT's estimated quantity is 4 not 14.			
E-10	DJS	SN 1.12.34	TT's estimated quantity is 39 not 25.			
E-11	DJS	SN 1.12.35	TT's estimated quantity is 16 not 20.			
E-12	DJS	SN 1.12.36	TT's estimated quantity is 0 not 3.			
E-13	DJS	SN 1.12.37	TT's estimated quantity is 0 not 2.			
E-14	DJS	SN 1.12.38	TT's estimated quantity is 0 not 1.			
E-15	DJS	NEW	Light fixture type F10E, qty. 2.			
E-16	DJS	SN 1.12.75	TT's estimated quantity is 16 not 3.			
E-17	DJS	SN 1.12.77	TT's estimated quantity is 0 not 5.			



**BOQ Review
EXECUTIVE OFFICE BUILDING – BUILDING 1
drawings dated NOVEMBER 3, 2010
WO-LT-0004**

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

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
COMMUNICATIONS COMMENTS						
C-1	JLB	SN 88	Flush floor mounted outlets were not indicated on the			
C-2	JLB	SN 89	16mm EMT conduit is smaller than the minimum conduit allowed by the specifications and drawings.			
C-3	JLB	SN90	Incorrect specification referenced			
C-4	JLB	SN91	Incorrect spec referenced and there were no CATV specs provided. No details were given regarding CATV on drawings either. It would take at least two F connectors to complete the link.			
C-5	JLB	SN92	Incorrect spec referenced.			
C-6	JLB	SN93	Incorrect spec referenced and there were no CATV specs provided. No details were given regarding CATV on drawings either.			
C-7	JLB	SN94	T-101 and T-102 did not indicate cable tray.			
C-8	JLB	General	No line items for communications racks patch pannels or fiber optic cabling.			



BOQ Review
EXECUTIVE OFFICE BUILDING – BUILDING 1
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
FIRE ALARM COMMENTS						
FA-1	DJS	N/A	No comments.			



BOQ Review
EXECUTIVE OFFICE BUILDING – BUILDING 1
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
STRUCTURAL COMMENTS						
S-1	NV	SN4 Roof Slab	Value of 752m ³ appears low, please verify.			
S-2	NV	SN9 Floor Beam	Value of 30m ³ appears low, please verify.			
S-3	NV	SN10 Roof Beam	Value of 38m ³ appears low, please verify.			
S-4	SPD	SN 1.1 1	Excavation quantity was calculated at 1394m ³ by TT; 578.00m ³ appears low, please verify.			
S-5	SPD	SN 1.1 2	Backfill quantity was calculated at 1044m ³ by TT; 404.60m ³ appears low, please verify.			
S-6	SPD	SN 1.1 3	Spoil quantity was calculated at 350m ³ by TT; 243.40m ³ appears low, please verify.			



Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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

<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
Index Sheet	Excel Workbook Index	1
Architectural	Architectural Drawing Comments	2
Mechanical	Mechanical Drawing Comments	3
Plumbing	Plumbing Comments	4
Electrical	Electrical Drawing Comments	5
Communications	Communications Comments	6
Fire Alarm	Fire Alarm Comments	7
Structural	Structural Drawing Comments	8



Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
 A - Agree
 D - Disagree
 O - out of scope
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.5.3	Check quantity, TT calculated 20 SM.			
A-2	KCB	SN 1.5.4	Check quantity, TT calculated 34 SM.			
A-3	KCB	SN 1.5.6	Why isn't this quantity the same as the attic floor area (roughly 172 SM)?			
A-4	KCB	SN 1.5	Estimate is missing metal flashings.			
A-5	KCB	SN 1.6.2	Door type should be B.			
A-6	KCB	SN 1.6.8	It is not clear if all louvers drawn fit into this spec section.			
A-7	KCB	SN 1.6.8	Check quantity, TT calculated 34 SM.			
A-8	KCB	SN 1.6	Estimate is missing metal window sills.			
A-9	KCB	SN 1.7.2	Check quantity, TT calculated 455 SM.			
A-10	KCB	SN 1.8.2	There aren't any grab bars shown on the drawings.			
A-11	KCB	SN 1.8.3	There aren't any grab bars shown on the drawings.			
A-12	KCB	SN 1.8.4	There aren't any grab bars shown on the drawings.			
A-13	KCB	SN 1.8.5	There aren't any grab bars shown on the drawings.			
A-14	KCB	SN 1.8.7	There aren't any grab bars shown on the drawings.			
A-15	KCB	SN 1.8.10	Spec section 12 21 13 was not included in the 100% documents.			
A-16	KCB	SN 1.8.10	The quantity listed would cover 5 of the 15 windows and no window treatments are shown on the drawings.			
A-17	KCB	SN 1.8.11	Spec section 06 10 00 was not included in the 100% documents.			
A-18	KCB	SN 1.8.12	This item is not shown on the drawings.			
A-19	KCB	SN 1.8.12	Spec section 11 51 16 was not included in the 100% documents. Would this be part of spec section 10 28 00 instead?			
A-20	KCB	SN 1.8.13	Per drawing LS-101 there should be 3 fire extinguishers in the estimate.			
A-21	KCB	SN 1.8.14	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-22	KCB	SN 1.8.15	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-23	KCB	SN 1.8.16	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			

Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
MECHANICAL COMMENTS						
M-1	RHM	SN-9	BOQ states 10-FOP-3, should be 10-FOP-2.			
M-2	RHM	SN-8	BOQ states lump sum for installation of all fuel oil piping materials and accessories. Refer to M-4 below.			
M-3	RHM	SN-13	AST-2 is scheduled as a 15KL tank not a 38KL tank.			
M-4	RHM	SN-21	BOQ states 86 meters of 25mm(1") copper pipe with insulation. There is no 25mm(1") hot water piping on drawings. There is 25mm(1") fuel oil piping, but fuel oil piping is done as a lump sum. Refer to M-2 above.			
M-5	RHM	SN-23	BOQ states 5.83 square meters of louver. Actual area is larger. Refer to drawing 10 A201			
M-6	RHM	SN-26 and 27	Note that ball valves and control valves are priced separately but balancing and drain valves and unions are not. Does finned tube radiation cost include these extra hydronic specialties? See note for SN-29 below.			
M-7	RHM	SN-29	\$700 for TAB does not appear to cover the cost of both the radiation balancing valves and the TAB labor, or set up and testing of the main pumps, boiler, VSDs, etc. Please confirm.			
M-8	RHM	n/a	Expansion tank ET-1 is missing.			
M-9	RHM	n/a	125mm isolation valves are missing.			
M-10	RHM	n/a	Chemical pot feeder tank is missing.			
M-11	RHM	n/a	RPZ / make-up water detail is missing.			
M-12	RHM	n/a	Seismic restraints are missing.			



Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
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WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
PLUMBING COMMENTS						
P-1	DCG	PN 1.9 4	Building doesn't have a bi-level drinking fountain, just a single level unit.			
P-2	DCG	PN 1.9 27	Unit pricing appears low for trenching and backfill.			
P-3	DCG	PN 1.11	Where is cost estimate for generator fuel tank, piping and daytank systems?			



Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
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WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ELECTRICAL COMMENTS						
E-1	DJS	SN 1.11.1	TT's estimated quantity is 0 not 1.			
E-2	DJS	SN 1.11.10	TT's estimated quantity is 10 not 6.			
E-3	DJS	SN 1.11.17	TT's estimated quantity is 19 not 25.			
E-4	DJS	SN 1.11.22	TT's estimated quantity is 0 not 4.			
E-5	DJS	SN 1.11.23	TT's estimated quantity is 0 not 3.			
E-6	DJS	SN 1.11.25	TT's estimated quantity is 4 not 1.			
E-7	DJS	SN 1.11.43	TT's estimated quantity is 10 not 8.			
E-8	DJS	SN 1.11.44	TT's estimated quantity is 0 not 3.			
E-9	DJS	SN 1.11.46	TT's estimated quantity is 40 not 25.			
E-10	DJS	SN 1.11.48	TT's estimated quantity is 130 not 75.			
E-11	DJS	SN 1.11.50	TT's estimated quantity is 3 not 4.			



Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
COMMUNICATIONS COMMENTS						
C-1	JLB	SN35	Conduit sizes do not match sizes indicated on plans or in spec for communications cabling pathways.			
C-2	JLB	SN36	Conduit sizes do not match sizes indicated on plans or in spec for communications cabling pathways.			
C-3	JLB	SN52	Incorrect specification referenced.			
C-4	JLB	SN53	Incorrect specification referenced.			



Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
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WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
FIRE ALARM COMMENTS						
FA-1	DJS	SN 1.11.41	TT's estimated quantity is 0 not 193.			

Design Review
HEATING PLANT - GENERATOR – BUILDING 10 - 11
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
STRUCTURAL COMMENTS						
S-1	FRS	SN 1.2 5 Roof Beam Conc	Value of 5m ³ appears low, please verify.			
S-2	SPD	SN 1.1 1	Excavation quantity was calculated at 276m ³ by TT; 110.00m ³ appears low, please verify.			
S-3	SPD	SN 1.1 2	Backfill quantity was calculated at 207m ³ by TT; 77.00m ³ appears low, please verify.			
S-4	SPD	SN 1.1 3	Spoil quantity was calculated at 69m ³ by TT; 33.00m ³ appears low, please verify.			



BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
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<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
Index Sheet	Excel Workbook Index	1
Architectural	Architectural Drawing Comments	2
Mechanical	Mechanical Drawing Comments	3
Plumbing	Plumbing Comments	4
Electrical	Electrical Drawing Comments	5
Communications	Communications Comments	6
Fire Alarm	Fire Alarm Comments	7
Structural	Structural Drawing Comments	8



**BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004**

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

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.6	Estimate is missing metal flashings.			
A-2	KCB	SN 1.6.3	Check quantity, TT calculated 22 SM.			
A-3	KCB	SN 1.7	Estimate is missing metal sills.			
A-4	KCB	SN 1.7.4	The quantity should be 2.			
A-5	KCB	SN 1.7.5	The quantity should be 1.			
A-6	KCB	SN 1.7.6	The quantity should be 2.			
A-7	KCB	SN 1.8.2	Check quantity, TT calculated 100 SM.			
A-8	KCB	SN 1.8.9	The quantity should be 3.			
A-9	KCB	SN 1.8.10	The quantity should be 90.			
A-10	KCB	SN 1.9.7	This quantity could not be verified as they are not shown in the drawings.			
A-11	KCB	SN 1.9.18	If the quantity was 286 that would cover all 130 windows.			
A-12	KCB	SN 1.9.18	Spec section 12 21 13 was not included in the 100% documents.			
A-13	KCB	SN 1.9.19	Entrance mats are not shown on the drawings and spec section 12 48 13 was not part of the 100% documents.			
A-14	KCB	SN 1.9.20	Spec section 06 10 00 was not included in the 100% documents.			
A-15	KCB	SN 1.9.26	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-16	KCB	SN 1.9.27	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-17	KCB	SN 1.9.28	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			

BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
 A - Agree
 D - Disagree
 O - out of scope
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
MECHANICAL COMMENTS						
M-1	RHM	SN-4	BOQ specifies 746.00 meters of 20mm (3/4") copper pipe and insulation. Actual length is closer to 940 meters.			
M-2	RHM	SN-5	BOQ specifies 110.00 meters of 25mm (1") copper pipe and insulation. Actual length is closer to 130 meters.			
M-3	RHM	SN-7	Include line item for building incoming water detail 2 on drawing 2 M-501.			
M-4	RHM	SN-8	BOQ specifies 0.72 square meters of louver. Actual area shown on details 2 and 3, A301 is substantially larger. Cost appears low for these two irregular quadrilateral shaped custom louvers. Does the cost also include the blank off panels?			
M-5	RHM	SN-16 and 17	Note that ball valves and control valves are priced separately but balancing and drain valves and unions are not. Does finned tube radiation cost include these extra hydronic specialties? Note SN-19 \$3271 for TAB does not appear to cover the cost of both the valves and the TAB labor - please confirm.			
M-6	RHM	SN-21	Controls cost appears appropriate for full DDC system but is excessive for the detailed and specified self contained thermostatic control valves.			



BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
PLUMBING COMMENTS						
P-1	DCG	SN 1.10 27	Quantity is low. TT counted 8 floor drains.			
P-2	DCG	SN 1.10 35	Unit price appears low for trenching and backfill.			



BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ELECTRICAL COMMENTS						
E-1	DJS	SN 1.12.3	TT's estimated quantity is 233 not 245.			
E-2	DJS	SN 1.12.4	TT's estimated quantity is 9 not 12.			
E-3	DJS	SN 1.12.11	TT's estimated quantity is 249 not 204.			
E-4	DJS	SN 1.12.12	TT's estimated quantity is 26 not 8.			
E-5	DJS	SN 1.12.13	TT's estimated quantity is 0 not 43.			
E-6	DJS	SN 1.12.14	TT's estimated quantity is 0 not 14.			
E-7	DJS	SN 1.12.15	TT's estimated quantity is 9 not 16.			
E-8	DJS	SN 1.12.16	TT's estimated quantity is 6 not 12.			
E-9	DJS	SN 1.12.17	TT's estimated quantity is 5 not 10.			
E-10	DJS	SN 1.12.18	TT's estimated quantity is 0 not 3.			
E-11	DJS	SN 1.12.19	TT's estimated quantity is 5 not 20.			
E-12	DJS	NEW	Light fixture type F7, qty. 9			
E-13	DJS	NEW	Light fixture type F7E, qty. 4			
E-14	DJS	NEW	Light fixture type F8, qty. 36			
E-15	DJS	NEW	Light fixture type F8E, qty. 3			
E-16	DJS	SN 1.12.29	TT's estimated quantity is 250 not 1000.			
E-17	DJS	NEW	Disconnect switch, qty. is 1			
E-18	DJS	NEW	60A fuse, qty. is 3			
E-19	DJS	NEW	GFI Weather-proof receptacle, qty. is 8			
E-20	DJS	SN 1.12.49	TT's estimated quantity is 12 not 3.			
E-21	DJS	SN 1.12.50	TT's estimated quantity is 8 not 6.			
E-22	DJS	SN 1.12.51	TT's estimated quantity is 0 not 4.			
E-23	DJS	SN 1.12.53	TT's estimated quantity is 200 not 50.			
E-24	DJS	SN 1.12.54	TT's estimated quantity is 30 not 20.			



BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
A - Agree
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
COMMUNICATIONS COMMENTS						
C-1	JLB	SN60	Incorrect spec referenced.			
C-2	JLB	SN61	Incorrect spec referenced.			
C-3	JLB	SN62	Incorrect spec referenced, Wiremold G4000 was not indicated on the plans.			
C-4	JLB	General	No line items for communications racks patch pannels or fiber optic cabling.			



BOQ Review
OFFICE BUILDINGS – BUILDING 2
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
FIRE ALARM COMMENTS						
FA-1	DJS	SN 1.12.46	TT's estimated quantity is 198 not 125.			
FA-2	DJS	SN 1.12.47	TT's estimated quantity is 500 not 1100.			

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
STRUCTURAL COMMENTS						
S-1	NV	SN 1.3 9 Floor Beam Conc	Value of 47m ³ appears low, please verify.			
S-2	NV	SN 1.3 10 Roof Beam Conc	Value of 44m ³ appears low, please verify.			
S-3	NV	SN 1.4 1 Block Walls	Block wall width listed as 20cm, should be 15cm.			
S-4	NV	SN 1.5 2 Steel Embed Plates	Value of 118 to be increased to 127 based upon design review comments.			
S-5	SPD	SN 1.1 1	Excavation quantity was calculated at 1500m ³ by TT; 877.00m ³ appears low, please verify.			
S-6	SPD	SN 1.1 2	Backfill quantity was calculated at 1125m ³ by TT; 613.90m ³ appears low, please verify.			
S-7	SPD	SN 1.1 3	Spoil quantity was calculated at 375m ³ by TT; 263.10m ³ appears low, please verify.			
S-8	SPD	SN 1.2 1	Paver quantity was calculated at 96m ³ by TT; 33.00m ² appears low, please verify.			
S-9	SPD	SN 1.2 2	Gravel Stone quantity was calculated at 65m ² by TT; 44.00m ² appears low, please verify.			
S-10	SPD	SN 1.2 3	Rain Garden quantity was calculated at 65m ² by TT; 83.00m ² appears high, please verify.			



BOQ Review
OFFICE BUILDINGS – BUILDING 3
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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

<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	2
Mechanical	Mechanical Drawing Comments	3
Plumbing	Plumbing Comments	4
Electrical	Electrical Drawing Comments	5
Communications	Communications Comments	6
Fire Alarm	Fire Alarm Comments	7
Structural	Structural Drawing Comments	8

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.6	Estimate is missing metal flashings.			
A-2	KCB	SN 1.6.3	Check quantity, TT calculated 22 SM.			
A-3	KCB	SN 1.7	Estimate is missing metal sills.			
A-4	KCB	SN 1.7.4	The quantity should be 2.			
A-5	KCB	SN 1.7.5	The quantity should be 1.			
A-6	KCB	SN 1.7.6	The quantity should be 2.			
A-7	KCB	SN 1.8.2	Check quantity, TT calculated 100 SM.			
A-8	KCB	SN 1.8.9	The quantity should be 3.			
A-9	KCB	SN 1.8.10	The quantity should be 90.			
A-10	KCB	SN 1.9.7	This quantity could not be verified as they are not shown in the drawings.			
A-11	KCB	SN 1.9.18	If the quantity was 286 that would cover all 130 windows.			
A-12	KCB	SN 1.9.18	Spec section 12 21 13 was not included in the 100% documents.			
A-13	KCB	SN 1.9.19	Entrance mats are not shown on the drawings and spec section 12 48 13 was not part of the 100% documents.			
A-14	KCB	SN 1.9.20	Spec section 06 10 00 was not included in the 100% documents.			
A-15	KCB	SN 1.9.26	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-16	KCB	SN 1.9.27	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-17	KCB	SN 1.9.28	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			

BOQ Review
OFFICE BUILDINGS – BUILDING 3
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
MECHANICAL COMMENTS						
M-1	RHM	SN-4	BOQ specifies 746.00 meters of 20mm (3/4") copper pipe and insulation. Actual length is closer to 940 meters.			
M-2	RHM	SN-5	BOQ specifies 110.00 meters of 25mm (1") copper pipe and insulation. Actual length is closer to 130 meters.			
M-3	RHM	SN-7	Include line item for building incoming water detail 2 on drawing 3 M-501.			
M-4	RHM	SN-8	BOQ specifies 0.72 square meters of louver. Actual area shown on details 2 and 3, A301 is substantially larger. Cost appears low for these two irregular quadrilateral shaped custom louvers. Does the cost also include the blank off panels?			
M-5	RHM	SN-16 and 17	Note that ball valves and control valves are priced separately but balancing and drain valves and unions are not. Does finned tube radiation cost include these extra hydronic specialties? Note SN-19 \$3271 for TAB does not appear to cover the cost of both the valves and the TAB labor - please confirm.			
M-6	RHM	SN-21	Controls cost appears appropriate for full DDC system but is excessive for the detailed and specified self contained thermostatic control valves.			



BOQ Review
OFFICE BUILDINGS – BUILDING 3
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WO-LT-0004

Response Legend
A - Agree
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
PLUMBING COMMENTS						
P-1	DCG	PN 1.10 1	Quantity should be 8, not 12 as indicated.			
P-2	DCG	PN 1.10 2	Quantity should be 8, not 12 as indicated.			
P-3	DCG	PN 1.10 27	Quantity should be 8, not 2 as indicated.			
P-4	DCG	PN 1.10 35	Unit price for trenching and backfill seems low.			



BOQ Review
OFFICE BUILDINGS – BUILDING 3
drawings dated NOVEMBER 3, 2010
WO-LT-0004

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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ELECTRICAL COMMENTS						
E-1	DJS	SN 1.12.3	TT's estimated quantity is 233 not 245.			
E-2	DJS	SN 1.12.4	TT's estimated quantity is 9 not 12.			
E-3	DJS	SN 1.12.11	TT's estimated quantity is 249 not 204.			
E-4	DJS	SN 1.12.12	TT's estimated quantity is 26 not 8.			
E-5	DJS	SN 1.12.13	TT's estimated quantity is 0 not 43.			
E-6	DJS	SN 1.12.14	TT's estimated quantity is 0 not 14.			
E-7	DJS	SN 1.12.15	TT's estimated quantity is 9 not 16.			
E-8	DJS	SN 1.12.16	TT's estimated quantity is 6 not 12.			
E-9	DJS	SN 1.12.17	TT's estimated quantity is 5 not 10.			
E-10	DJS	SN 1.12.18	TT's estimated quantity is 0 not 3.			
E-11	DJS	SN 1.12.19	TT's estimated quantity is 5 not 20.			
E-12	DJS	NEW	Light fixture type F7, qty. 9			
E-13	DJS	NEW	Light fixture type F7E, qty. 4			
E-14	DJS	NEW	Light fixture type F8, qty. 36			
E-15	DJS	NEW	Light fixture type F8E, qty. 3			
E-16	DJS	SN 1.12.29	TT's estimated quantity is 250 not 1000.			
E-17	DJS	NEW	Disconnect switch, qty. is 1			
E-18	DJS	NEW	60A fuse, qty. is 3			
E-19	DJS	NEW	GFI Weather-proof receptacle, qty. is 8			
E-20	DJS	SN 1.12.49	TT's estimated quantity is 12 not 3.			
E-21	DJS	SN 1.12.50	TT's estimated quantity is 8 not 6.			
E-22	DJS	SN 1.12.51	TT's estimated quantity is 0 not 4.			
E-23	DJS	SN 1.12.53	TT's estimated quantity is 200 not 50.			
E-24	DJS	SN 1.12.54	TT's estimated quantity is 30 not 20.			



BOQ Review
OFFICE BUILDINGS – BUILDING 3
drawings dated NOVEMBER 3, 2010
WO-LT-0004

Response Legend
A - Agree
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
COMMUNICATIONS COMMENTS						
C-1	JLB	SN60	Incorrect spec referenced.			
C-2	JLB	SN61	Incorrect spec referenced.			
C-3	JLB	SN62	Incorrect spec referenced, Wiremold G4000 was not indicated on the plans.			
C-4	JLB	General	No line items for communications racks patch pannels or fiber optic cabling.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
FIRE ALARM COMMENTS						
FA-1	DJS	SN 1.12.46	TT's estimated quantity is 198 not 125.			
FA-2	DJS	SN 1.12.47	TT's estimated quantity is 500 not 1100.			

Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
STRUCTURAL COMMENTS						
S-1	NV	SN 1.3 9 Floor Beam Conc	Value of 47m ³ appears low, please verify.			
S-2	NV	SN 1.3 10 Roof Beam Conc	Value of 44m ³ appears low, please verify.			
S-3	NV	SN 1.4 1 Block Walls	Block wall width listed as 20cm, should be 15cm.			
S-4	NV	SN 1.5 2 Steel Embed Plates	Value of 118 to be increased to 127 based upon design review comments.			
S-5	SPD	SN 1.1 1	Excavation quantity was calculated at 1500m ³ by TT; 877.00m ³ appears low, please verify.			
S-6	SPD	SN 1.1 2	Backfill quantity was calculated at 1125m ³ by TT; 613.90m ³ appears low, please verify.			
S-7	SPD	SN 1.1 3	Spoil quantity was calculated at 375m ³ by TT; 263.10m ³ appears low, please verify.			
S-8	SPD	SN 1.2 1	Paver quantity was calculated at 96m ³ by TT; 33.00m ² appears low, please verify.			
S-9	SPD	SN 1.2 2	Gravel Stone quantity was calculated at 65m ² by TT; 44.00m ² appears low, please verify.			
S-10	SPD	SN 1.2 3	Rain Garden quantity was calculated at 65m ² by TT; 83.00m ² appears High, please verify.			



BOQ Review
PUMP HOUSE – BUILDING 17
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<u>Excel Worksheet Name</u>	<u>Description</u>	<u>Printed Page Number</u>
Index Sheet	Excel Workbook Index	1
Architectural	Architectural Drawing Comments	2
Mechanical	Mechanical Drawing Comments	3
Plumbing	Plumbing Comments	4
Electrical	Electrical Drawing Comments	5
Communications	Communications Comments	6
Fire Alarm	Fire Alarm Comments	7
Structural	Structural Drawing Comments	8



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PUMP HOUSE – BUILDING 17
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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ARCHITECTURAL DRAWINGS						
A-1	KCB	SN 1.5.3	Terminology does match drawings. Should be galvanized metal wall panels.			
A-2	KCB	SN 1.5.4	Terminology does match drawings. Should be perforated metal soffit panels.			
A-3	KCB	SN 1.5.7	Why isn't this quantity the same as the attic floor area (roughly 35 SM)?			
A-4	KCB	SN 1.6.2	Quantity should be 2.			
A-5	KCB	SN 1.6.5	Should be hardware set 09.			
A-6	KCB	SN 1.6.6	Should be hardware set 09.			
A-7	KCB	SN 1.6.10	List the hardware sets as has been done for other buildings. (1) HW01 and (1) HW06.			
A-8	KCB	SN 1.6.15	Check quantity, TT calculated 6 SM.			
A-9	KCB	SN 1.7.2	Check quantity, TT calculated 140 SM.			
A-10	KCB	SN 1.7.3	The finish schedule calls for pro mar filler and finish on all walls.			
A-11	KCB	SN 1.7.3	The unit cost for painting seems low. Are you sure this is correct?			
A-12	KCB	SN 1.7.5	Check quantity, TT calculated 5 SM.			
A-13	KCB	SN 1.7.7	The painting of ceilings is not called out on the finish schedule - verify this is needed.			
A-14	KCB	SN 1.7	Estimate is missing painting of exterior hollow metal doors and frames.			
A-15	KCB	SN 1.8.2	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-16	KCB	SN 1.8.3	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			
A-17	KCB	SN 1.8.4	The specification section listed here is interior painting. Do not see a signage specification in the 100% documents or any signs indicated on the drawings.			



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MECHANICAL COMMENTS						
M-1	RHM	SN-3	Cost appears insufficient for ductwork and connections to louvers as shown.			
M-2	RHM	SN-4	BOQ specifies 6.65 square meters of louver. Confirm area priced reflects louvers shown on 17 A-201.			
M-3	RHM	SN-5	BOQ specifies (1) MOD, Motorized damper. Actual quantity is (2).			
M-4	RHM	SN-7	Cost appears excessive for the type of electric heater specified.			
M-5	RHM	SN-9	TAB cost appears excessive for the work shown.			



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PLUMBING COMMENTS						
P-1	DCG	PN 1.9 5-11	Confirm availability of ductile iron piping at project site location.			
P-2	DCG	PN 1.9 18	Unit price appears low for trenching and backfill.			



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Comment #	Reviewer	Reference	Comment	Response Code	Response	Back-Check
ELECTRICAL COMMENTS						
E-1	DJS	SN 1.11.5	TT's estimated quantity is 0 not 2.			
E-2	DJS	SN 1.11.34	TT's estimated quantity is 4 not 6.			



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COMMUNICATIONS COMMENTS						
C-1	JLB	n/a	No communications scope in this building.			



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FIRE ALARM COMMENTS						
FA-1	DJS	N/A	No comments			

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STRUCTURAL COMMENTS						
S-1	SPD	SN 1.1 1	Excavation quantity was calculated at 84m ³ by TT; 43.00m ³ appears low, please verify.			
S-2	SPD	SN 1.1 2	Backfill quantity was calculated at 63m ³ by TT; 30.10m ³ appears low, please verify.			
S-3	SPD	SN 1.1 3	Spoil quantity was calculated at 21m ³ by TT; 12.90m ³ appears low, please verify.			
S-4	SPD	SN 1.1 5	Backfill quantity was calculated at 20m ³ by TT; 156.10m ³ appears high, please verify.			
S-5	SPD	SN 1.1 6	Spoil quantity was calculated at 183m ³ by TT; 66.90m ³ appears low, please verify.			