UNIVERSITY OF SASKATCHEWAN
Planning, Design & Construction
Campus Engineering & Sustainability

Mechanical Engineering - Capital Project Design Checklist

University Services
Building
110 Maintenance Road

Project Name:		UNIVERSITY OF SASKATCHEWAN	**Project Number:**	
Design Stage:	**99% Review**		**Consultant:**	
Usask PM:			**Usask Engineer:**	

This checklist reflects the information found within the Usask Mechanical Design Guidelines, along with other pertinent design elements that must be complete at the current design stage. Usask Engineering will use this checklist to confirm all elements of the design below are included in the current package. The design package will be rejected if any applicable element in the list below is not included without adequate justification. It is the Consultant's responsibility to ensure all information is included. The Consultant is responsible for any delays in the project due to resubmissions and supplemental reviews required to satisfy USask requirements. This checklist assumes all items included on previous design checklists have been included and are already shown on the drawings.

No.	Requirement	Consultant - Is Design Compliant? (Y/N)	Consultant - Deviations requests/comments	Usask Engineering - Is design acceptable? (Y/N)
	SECTION 21 - FIRE SUPPRESSION			
1	**Fire Extinguishers Located on Plans**			
1a	Fire extinguishers shall be installed in fully recessed cabinets in public spaces.			
2	**Fire Protection Details Included on Drawings**			
	SECTION 22 - PLUMBING			
3	**Pertinent Valving Shown on Plans**			
3a	Provide drain valves at all isolation valves sized 50mm and above.			
3b	Provide isolation valves on all take-offs.			
3c	All valves 50mm and above shall be identified on design drawings. Contractor to provide valve tagging and valve location tables.			
4	**All Plumbing Details Included on Drawings**			
4a	Designers shall indicate flow quantities and estimated system volumes on drawings.			
4b	Piping installed beneath structural slabs shall be hung from the structure with stainless steel hangers and protected from heaving with void boxes. Transition to ground supported piping shall be designed with minimum 75mm drop over 1,800mm, but not more than a 10% grade.			
4c	Cast iron piping and floor drains shall be used in areas where there is potential for high temperature discharge from equipment. High temperature is considered for discharge temperatures above 60°C.			
4d	Where trench drains are installed, designer shall discuss needs for a flushing system to be incorporated with USask Engineering team.			
	SECTION 23 - HVAC			
5	**Valving Details Included on Drawings**			
6	**All Equipment Located and coordinated with other disciplines**			
7	**All HVAC Details Included on Drawings**			
7a	Designers shall indicate flow quantities and estimated system volumes on drawings.			
	SECTION 25 - CONTROLS			
8	**Control Valves Selections and Details Inlcuded on Drawings**			
9	**Confirm Controls Coordination with USask Controls Design Team**			
	SPECIFICATIONS			
10	**Full Specifications are Provided for Review**			
10a	Specifications shall be based on USask Master Specifications			
	ENERGY MODEL			
11	**Final energy model submitted to USask for review.**			
	COORDINATION			
12	**Confirm system level coordination has been completed between consultants.**			