

CONSTRUCTION TESTING AND INSPECTION SERVICES MASTER CONTRACTS - SUMMARY OF SERVICES MATRIX

106 Group	American Engineering Testing, Inc. (AET)	Bay West	Braun Intertec Corp	Chosen Valley Testing (CVT)	Construction Engineering Laboratory (CEL)	EPC Engineering & Testing	Inspec, Inc.	Kilo Engineering	Landmark Environmental	MSA Professional Services	Pinnacle Engineering, Inc.	Professional Engineering Services	Roof Spec Inc. (RSI)	Terracon	Wiseth	WSB, LLC
-----------	--	----------	---------------------	-----------------------------	---	---------------------------	--------------	------------------	------------------------	---------------------------	----------------------------	-----------------------------------	----------------------	----------	--------	----------

Geotechnical Services

	X		X	X	X	X		X					X			X
	X		X					X								
	X		X	X	X	X		X					X			X
	X		X	X	X	X		X			X		X			X
	X		X	X	X	X		X					X			X
	X		X	X	X	X		X			X		X			X
			X	X									X			

Pre-construction Soil Exploration and Testing
 Percolation Tests, Recommendations for Septic Systems
 Foundation and Pavement Design Recommendations
 Observation and Testing of Existing Soils during Excavation and Grading
 Laboratory Testing of Proposed Fill Material
 Observation and Testing of Fill and Backfill for Moisture, Compaction
 Other ___ see individual contract _____

Concrete Testing and Inspection Services

	X		X	X	X											X
	X		X	X	X	X		X			X		X			X
	X		X	X	X	X		X			X		X			X
	X		X	X	X	X		X			X		X			X
	X		X	X	X	X		X			X		X			X
			X													

Concrete, Grout Mix Design
 Observe and Document Formwork Construction
 Observe and Document Placement of Reinforcing Steel
 Slump, Temperature, and Air Entrainment Tests of Fresh Concrete
 Cast, Cure and Test Concrete Cylinders for Compressive Strength
 Other ___ see individual contract _____

Masonry Testing and Inspection Services

	X		X		X			X								X
	X		X	X	X			X					X			X
	X		X	X	X	X		X					X			X
	X		X	X	X	X		X			X		X			X
							X					X				

Mortar, Masonry Fill Mix Design
 Laboratory Tests on Masonry Prisms
 Laboratory Test of Mortar and Core-fill for Compressive Strength and Bond Strength
 Special Inspection of Structural Masonry Construction (Continuous ___/ Periodic ___)
 Other ___ see individual contract _____

Structural Steel Testing and Inspection

	X		X	X	X								X			X
	X		X	X	X			X					X			X
	X		X	X	X			X					X			X
			X													

Strength Testing of Embedded Bolts
 Observe and Test Welded and Bolted Connections during Structural Steel and Precast Concrete Erection
 Observe and Test Welding and Screw Fastening during Metal Deck Installation
 Other ___ see individual contract _____

Pavement Testing and Inspection

	X		X	X	X	X		X				X		X		X
	X		X	X	X	X		X				X		X		X
	X		X	X	X	X		X				X		X		X

Observe and Test Rolling Operations on Subgrade Soils
 Field and Laboratory Tests on Aggregate Base
 Field and Laboratory Tests during Bituminous Paving (Continuous ___/Periodic ___)
 Other ___ see individual contract _____

CONSTRUCTION TESTING AND INSPECTION SERVICES MASTER CONTRACTS - SUMMARY OF SERVICES MATRIX

106 Group	American Engineering Testing, Inc. (AET)	Bay West	Braun Intertec Corp	Chosen Valley Testing (CVT)	Construction Engineering Laboratory (CEL)	EPC Engineering & Testing	Inspec, Inc.	Kilo Engineering	Landmark Environmental	MSA Professional Services	Pinnacle Engineering, Inc.	Professional Engineering Services	Roof Spec Inc. (RSI)	Terracon	Wiseth	WSB, LLC
-----------	--	----------	---------------------	-----------------------------	---	---------------------------	--------------	------------------	------------------------	---------------------------	----------------------------	-----------------------------------	----------------------	----------	--------	----------

Fireproofing / Firestopping Testing and Inspection

	X		X	X	X	X								X		X
	X		X		X	X								X		X
				X												

Test Installed Spray-on Fireproofing for Thickness, Density, Adhesion
 Observe and Document Installation of Fire-Resistive Joint Systems
 Other see individual contract _____

Other

	X		X													
	X		X				X						X			
	X															
			X													

Window/Curtain Wall Testing and Inspection
 Roofing/Waterproofing Testing and Inspection
 Sealant Pull Tests
 Fluid-Applied Vapor Barrier Testing

Phase I Archaeological Resources Investigation

X			X													
X			X													
X			X													
X			X													

Determine whether cultural resources are present within the project area, and whether these resources are potentially eligible for the National Register of Historic Places (NRHP).
 All field methods and reporting of the Phase I Archaeological Resources Investigation will comply with the Minnesota State Historic Preservation Office guidelines as well as federal guidelines, and will meet the requirements of the Secretary of the Interior's Standards.
 If an archaeological site is found, wash, analyze, and catalogue all recovered artifacts. Laboratory and curation procedures will follow appropriate standard guidelines
 Curate the artifacts at the Minnesota Historical Society under Contractor's curation agreement. Contractor's lab director will ensure that the cataloging and curation meet the requirements of Minnesota's repository guidelines.
 Other _____

Phase II Archaeological Resources Investigation

X			X													
X			X													
X			X													
X			X													

Excavate and document designated features in accordance with Minnesota State Historic Preservation Office guidelines as well as federal guidelines, and will meet the requirements of the Secretary of the Interior's Standards.
 Record excavation data on standardized forms and in the log book of the principal investigator including location and methods of testing; the numbers, types, and locations of recovered cultural materials; the depth and thickness of excavated soil layers; soil textures and inclusions; and soil color according to Munsell color charts.
 Take up to 5 radiocarbon samples if suitable materials are encountered and complete standard radiometric analysis.
 Clean, catalogue, label and bag all recovered artifacts in accordance with professional standards and submit recovered materials to the Minnesota Historical Society for curation.
 Other _____

CONSTRUCTION TESTING AND INSPECTION SERVICES MASTER CONTRACTS - SUMMARY OF SERVICES MATRIX

106 Group	American Engineering Testing, Inc. (AET)	Bay West	Braun Intertec Corp	Chosen Valley Testing (CVT)	Construction Engineering Laboratory (CEL)	EPC Engineering & Testing	Inspec, Inc.	Kilo Engineering	Landmark Environmental	MSA Professional Services	Pinnacle Engineering, Inc.	Professional Engineering Services	Roof Spec Inc. (RSI)	Terracon	Wiseth	WSB, LLC
-----------	--	----------	---------------------	-----------------------------	---	---------------------------	--------------	------------------	------------------------	---------------------------	----------------------------	-----------------------------------	----------------------	----------	--------	----------

Phase I Environmental Investigation

	X	X	X	X					X	X	X	X			X	X
	X	X	X	X					X	X	X	X			X	X
	X	X	X						X	X	X	X			X	X
	X	X	X						X	X	X	X			X	X
											X					

Complete a Phase I Environmental Site Assessment in a manner consistent with the American Society of Testing and Materials standard for a Phase I ESA and the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program Guidance Document #8.

Conduct a visual (existing structures) assessment for typical suspect asbestos containing materials (ACM).

Assess the presence of PCBs at the subject site

Collect and evaluate available historical information to determine if evidence exists indicating an existing release, a past release, or a material threat of a release of hazardous substances, hazardous materials or petroleum products to the Property

Other _see individual contract _____

Phase II Environmental Investigation

	X	X	X	X					X	X	X	X			X	X
	X	X	X						X	X	X	X			X	X
	X	X	X	X					X	X	X	X			X	X
											X					

Prepare a workplan the Phase II Investigation in a manner consistent with the American Society of Testing and Materials standard for a Phase I ESA and the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program Guidance Document #11 to determine if potential sources of contamination identified during the Phase I Investigation are causing a release or threatened release of hazardous substances, contaminants or pollutants to the soil, surface water and ground water on the property in question.

Prepare a site safety and contingency plan in a manner consistent with the American Society of Testing and Materials standard for a Phase I ESA and the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program Guidance Document #10.

Conduct Phase II Environmental Investigation in accordance with approved work plan and in a manner consistent with the American Society of Testing and Materials standard for a Phase I ESA and the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program Guidance Documents.

Other _see individual contract _____

Remediation Services

	X	X	X						X	X	X	X			X	X
	X	X	X						X	X	X	X			X	X
											X					

Prepare and, upon approval, implement the Response Action Plan (RAP) and in a manner consistent with the American Society of Testing and Materials standard for a Phase I ESA and the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program Guidance Documents.

Following completion of the RAP, prepare an Implementation Report for submission to the MPCA for review and approval in a manner consistent with the American Society of Testing and Materials standard for a Phase I ESA and the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program Guidance Documents.

Other _see individual contract _____