

February 2013

Feasibility Study

Clinical Services Building

Emma Eccles Jones
College of Education & Human Services
Utah State University



Clinical Services Building Utah State University

FEASIBILITY STUDY

February 2013

1.	Introduction	
	Feasibility Study Team Members	02
	Executive Summary	03
2.	Program Spaces	
	Space Area Summary	06
3.	Program Organization	
	Concept Development	08
	Floor Plan Diagram	10
	Site Plan Diagram	15
	Massing Studies	16
4.	Cost Estimate	20
5.	Appendix	
	Project Directory	22

Steering Committee

**Beth Foley, Ph.D**

Dean, Emma Eccles Jones College of Education and Human Services

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Kim Corbin-Lewis, Ph.D

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Department Head, Psychology Department, Emma Eccles Jones
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LuAnn Parkinson,

Senior Budget Officer, Emma Eccles Jones College of Education and
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Jordy Guth,

Architect, Facilities Planning, Design & Construction

Design Team

Robert Jacoby, President Jacoby Architects

Joe Jacoby, Principal Jacoby Architects

Eric Jacoby, Principal Jacoby Architects

Cost Consultant:

Gary Stevens, Spindler Construction



Executive Summary

Clinical Services Building Mission Statement:

The new Clinical Services Building will be a state-of-the-art facility for adults, adolescents and families to receive a variety of interdisciplinary clinical services, all within one building. This will include integrated service delivery, vocational and graduate student training activities, clinical research, and community outreach featuring seven different clinics.

Building Design and Function:

The new building should take into account the following functionality traits:

- Allow for flexibility and growth.

- Integrate the various clinics into an interdisciplinary environment.

- Create a confidential environment with visual and acoustic considerations

- Create a dynamic, positive, environment.

- Create a unique design and identity that can enhance recruitment of new staff, faculty, and students.

- Meet ADA accessibility requirements.

- Building Design to achieve LEED Silver & current ASHRAE Energy Code.

Building Design & Experience:

The new design should feel warm, cozy, soothing, and inviting to promote a healing environment. The building should be thoughtfully designed as to relieve a patient's stress when he/she enters. The building should be light-filled and have clear way-finding patterns to allow patients and their families to easily get to their specific clinic. Although the new facility is intended to foster interdisciplinary relationship between the various clinics, each clinic should have its own identity within the building.

General Requirements:

All clinical rooms, offices, observation rooms and conference rooms are to be wired for data access to observation information and medical record information. Additionally, all Clinical Rooms are to have robust acoustical considerations (Sound Transmission Coefficient - STC 62), state of the art computerized/electronic record keeping technology, and lockable glass storage cases for clinical equipment storage.

Considerations for Programming and Design Services:

The attached Organizational Diagrams should not be interpreted as comprehensive Floor Plans, as they have been developed solely to study area adjacencies and spatial feel. There are numerous issues that need careful consideration and integration through the design process including, but not limited to:

Fire and Life Safety Considerations for the multi-story atrium including space planning and building design to separate the atrium from the individual wings and the egress enclosures.

Integration of mechanical, electrical and structural systems and their associated areas. For the purposes of the feasibility study exercise, we have assumed that the mechanical space will be located in a basement.

For the purposes of the feasibility study exercise, we have assumed that equipment for the hydro-therapy pool will be located directly below the therapy area in a basement.

Integration of USU Design Standard spaces such as Janitor's Rooms, Attic Stock Rooms, and Communication Rooms.

To avoid unnecessary structural complications, the Audiology Sound Booths have been located on the first floor due to their excessive weight. The Sound Booths will also require a recessed slab to accommodate a flush relationship of the floor inside the booth and the adjacent spaces.

Careful space planning and documentation of specialized clinical equipment.

The Organizational Diagrams are laid out with the assumption that light will be shared through offices/therapy spaces via high transom windows in the walls between these spaces and the adjacent corridors. This arrangement is suggested as a way to provide shared light, while maintaining privacy within the enclosed spaces.

Considerations for Site Design:

The location of the new building was selected in the efforts of enhancing and reinforcing the Emma Eccles Jones College of Education and Human Services Quad (bounded by the EBLs building to the east, the Early Childhood Education and Research Building (and the new CSB building) to the north, the HPER Building to the west, and the Education Building to the south.

The preferred site for the new facility is in the location of the current Center for Persons with Disabilities Building. The Steering Committee has agreed that this site will provide maximum opportunities for enhancing the College of Education and Human Services Quad.

Through discussions with the Steering Committee, it was agreed that the early education classrooms that are a part of the new building will be best suited on level one and on the south side of the building. This will provide the best opportunities for natural light into the classrooms. Locating the classrooms in this part of the building suggests that the best location for the new playgrounds will be directly outside the classrooms to the south in a similar arrangement to the playgrounds associated with the Early Childhood Education and Research Building.

Both the Center for Persons with Disabilities and EBLs buildings utilize existing playground areas that are located on the preferred site for the new CSB building. The existing playgrounds are divided for different children’s age groups. Although these playgrounds will be demolished as part of the new construction, they will need to be re-incorporated into the new project, as they are associated serve the early childhood classrooms that are part of the new building.

It was agreed that the public entrance for the new building shall be located on the north side of the site to allow for a patient drop-off area for building patrons. The number of parking spaces required for the new building is addressed in the Summary of Parking Requirements, below.

A separate Parking Study is underway to address existing complexities of the parking area north of the new building. Items for consideration in this separate parking study will be: Parent waiting and drop-off for EBLs, Parent parking and drop-off for Early Childhood Education and Research Building, Drop-off, Parking, and transit options for the new Clinical Services Building, as well as parking for Staff, Students, and Student Residents.

The USU Fire Marshall was not involved during the Feasibility Study. Programming and Design considerations for the new building will need to include comments and considerations from the Fire Marshall to determine adequate access for firefighting and turnaround of fire apparatus.

It is assumed that the new Clinical Services Building will need to make provisions to extend the campus utility tunnel to the new building site.

Parking needs for Individual Clinics	6 Hour parking spaces for extended patient treatment	45-120 Min (including accessible parking stalls)	15 Min. Park and Drop (for parents dropping off children to Early Childhood Classrooms)	Curb spaces for patient drop-off
Clinic 1,6 and 7: Autism/Development/CPD		15	8	
Clinic 2: FCHD		6		
Clinic 2: Psych		12		2
Clinic 3: Aging/Memory/Mental	4	5	4	4
Clinic 4: Health/Movement		4		
Clinic 5: Speech/Language/Audiology		15		2
Total Parking Spaces			73	
Total Curb Drop Off Spaces				8

2.1

Program Spaces Space Area Summary

Clinical Services Building
Utah State University

February 2013

*Areas listed below are estimates based on preliminary discussions with steering committee. Area requirements of individual spaces are to be verified during programming.

Area Summary

Preliminary List of Spaces:

Room:	Staff per unit	Patients per unit	QTY	Unit (S.F.)	Total (S.F.)	Adjacency Requirements:	Comments:
Common Spaces:			net sf:	31,940	44716	gross sf	
Entry Atrium			1	2,000	2,000		
Reception			1	300	300	Level 1	
Café / Seating			1	1,200	1,200	Level 1	
Food Storage			1	200	200	Level 1	
Gallery Spaces			1	500	500	Level 1	
Mailroom/Work Room			1	500	500	Level 1	copier, built-in cabinets, mail distribution area, work station, work table
Lending Library (Books)							
Public Book Area			1	400	400	Near Building Entry	requires check-out attendant, large study table, comfy seating
Professional Book Area			1	400	400		requires check-out attendant
Toy Library			1	800	800	Near Lending Library	requires check-out attendant, provide sink to clean toys, counter space to air-dry
Testing Equipment Library			1	800	800	Near Psych/Speech, Centrally located	requires check-out attendant, large work table, a/v equipment storage
Distance Classrooms			2	1,000	2,000		black-out window coverings or no exterior windows
Tele-Health Suites			4	200	800		video conferencing equipment, no requirement for exterior windows
Conference Room: Large			2	600	1,200		black-out window coverings, motorized projection screens, av equipment
Conference Room: Medium			6	250	1,500		black-out window coverings, motorized projection screens, av equipment
Faculty Lounge / Break Room			1	800	800		fridge, microwave, sink, scan/copy/fax machine
Central Admin Offices			7	120	840		
Building Director's Office			1	200	200		
Graduate Student Offices (Work Area)			79	60	4,740		Open carrel space
Student Lounge			1	800	800		90 small lockers for Student/Staff coat/purse/backpack storage, comfy seating,
Note Rooms	12		4	1,000	4,000	One on each floor	locking file cabinets, screened workstations, printers,
Small Classroom	12		1	350	350		Love seat, coffee table, projection screen, white board, medium conference table,
General Storage			4	200	800	Distributed throughout building	
Medical Record Storage			1	600	600	Centralized, near administration	Requires visual supervision during business hours, locked after hours
Medical Record Scan Room			1	100	100	Near Medical Record Storage Room	
Child Lab			1	400	400	Adjacent to Observation Room and playground	pre-school type classroom for multiple students, playground area
Child Lab Observation Room			1	150	150	Adjacent to Child Lab	under counter light, telephone, speakers, headphone jacks, workstation
Physical Therapy Room			1	500	500	Adjacent to Gym	
Occupational Therapy Room			1	500	500	Adjacent to Gym	
Public Restrooms			8	400	3,200	At least one M/F per floor	include changing stations in each, Building population is anticipated to be over
Server Room			1	400	400		for observation technology and medical records computer servers
Trash and Recycling Room			1	300	300		
Nursing Room			1	80	80		rocking chair
Phone Room			8	60	480		enhanced acoustics, workstation with telephone
Laundry Area			1	100	100	Near Child Lab	
Common Therapy Rooms:			net sf:	8,590	12026	gross sf	
Therapy - Large Family Room Type			1	300	300		2 cameras, microphones, phone, whiteboard, sofas, soft seating
Therapy - Medium Family Room Type			10	200	2,000		2 cameras, microphones, phone, whiteboard, sofas, soft seating
Therapy - Small Family Room Type			1	150	150		2 cameras, microphones, phone, whiteboard, sofas, soft seating
Therapy - Across-the-table Type			20	150	3,000		2 cameras, microphones, phone, whiteboard, tables, chairs
Therapy - Apartment Type			2	350	700		2 cameras, microphones, phone, whiteboard, table, chairs, soft seating, assistive
Therapy - Pediatric Type			3	150	450		2 cameras, microphones, phone, whiteboard, sensory table, children's furniture,
Therapy - Art Studio Type		8	1	400	400		paint/material storage, 2 cameras, microphones, phone, easels, tables, sink,
Therapy - Music Type		8	1	400	400		piano
Therapy - Pet Type			1	250	250	somewhat isolated, near exit	
Therapy Observation Rooms			5	100	500	Family, 2 Across Table, Apartment,	under counter light, telephone, speakers, headphone jacks, workstation
Snoezelen Room (Adult)			1	220	220		multi-sensory equipment, specialized lighting, comfy furniture
Snoezelen Room (Pediatric)			1	220	220		multi-sensory equipment, specialized lighting, comfy furniture, children's
Clinic 1: Autism and Other Developmental Disabilities			net sf:	3,060	4284	gross sf	
Reception Area / Waiting			1	400	400		
Reception Desk			1	100	100		
Severe Behavior Therapy Room			1	150	150	Located as not to disturb unrelated staff/therapy	2 cameras, microphones, lockable light switch, door locked from corridor side, special acoustic considerations
Severe Behavior Observation Room			1	200	200	Adjacent to Severe Behavior	2 workstations, under counter light, telephone, speakers, headphone jacks
Offices (Faculty)			8	120	960		
Storage			1	250	250		
PEER Classroom	3	15	1	1,000	1,000		Tables for Lessons, small groups, looks like typical classroom

2.1

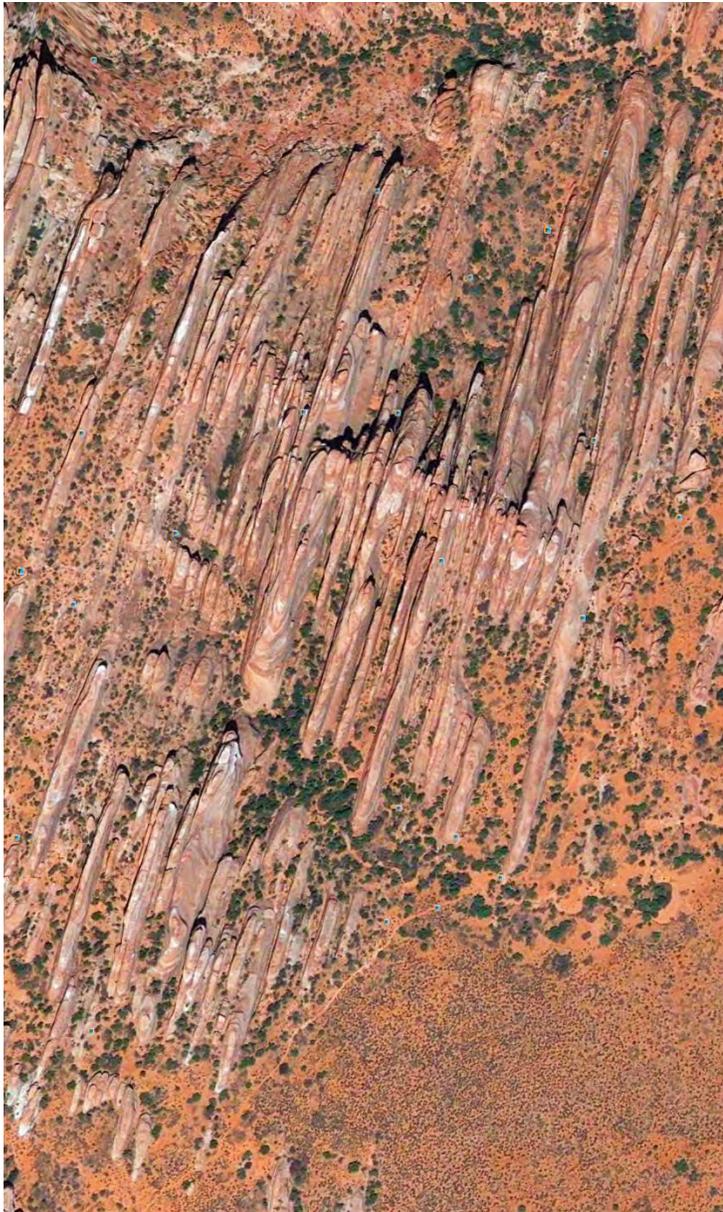
Program Spaces Space Area Summary

Clinic 2: Mental Health			net sf	2,850	3990 gross sf	Near Aging and Testing Library
Psych. Reception Area / Waiting		1	400	400		
FCHD Reception Area / Waiting		1	400	400		
Psych Reception Desk		1	100	100		
FCHD Reception Desk		1	100	100		
Offices (Faculty)		5	120	600		
Storage		1	250	250		
Research Work Room	5-8	1	600	600		8 work stations, white board, locking file cabinets
Conference Rooms (Small)		2	200	400		
Clinic 3: Aging / Memory/CPD Medical			net sf	2,610	3654 gross sf	Near Psych and Testing Library
Reception Area / Waiting		1	400	400		
Reception Desk		1	100	100		
Medical Clinic Exam Rooms		4	200	800		Medical Exam Tables, Sink
Weight and Height Measuring Area		1	100	100		Medical Scale
Offices (Faculty)		8	120	960		
Storage		1	250	250		
Clinic 4: Health and Movement Science			net sf	4,380	6132 gross sf	
Reception Area / Waiting		1	400	400		
Reception Desk		1	100	100		
Offices (Faculty)		4	120	480		
Rehabilitation Therapy Room (GYM)	10	1	1,000	1,000	Adjacent to Water Therapy Area and Reception	overhead harness treadmills, recumbant stationary cycles
Water Therapy Area	6	1	600	600	Adjacent to Rehabilitation Therapy	6 perso, 5,200 gallon Hydro Therapy Pool with underground observation area on
Locker Room / Changing	5	2	500	1,000		5 lockers each, showers, privacy maze
Storage		1	250	250		
Virtual Reality Testing Room		1	150	150		Virtual Reality treadmill
Multi-purpose Room		1	400	400	Adjacent to Water Therapy Area	Dividable space with operable partition wall
Clinic 5: Speech, Language, and Hearing /CPD Clinical			net sf	5,328	7459.2 gross sf	Near Testing Equipment Library
Reception Area / Waiting		1	400	400		
Reception Desk		1	100	100		
Offices (Faculty)		14	120	1,680		
Audiology Sound Booths		2	200	400		recess structural slab
Audiology Observation		2	100	200		1 workstation each, built in cabinets,
Hearing Aid Work	3	1	350	350		3 work stations, microwave, sink, special acoustic treatment
Hearing Aid Fitting	2	1	220	220		2 work stations, coffee table, special acoustic treatment
Observation (HAF)		1	100	100		under counter light, telephone, speakers, headphone jacks, workstation
Storage		2	250	500		
Hearing Screening		1	150	150		Cart mounted equipment aproximately 24"x36", special acoustic treatment
ENG Balancing	1	1	200	200		1 workstation, sink, examination table, special acoustic treatment
Observation (ENG)		1	100	100		under counter light, telephone, speakers, headphone jacks, workstation
Rotary Balancing	1	1	144	144		1 work station, sink, rotary chair (similar size to dental chair), special acoustic
Observation (Rotary)		1	100	100		under counter light, telephone, speakers, headphone jacks, workstation
Posturography Balancing		1	264	264		1 work station, posturography equipment (similar to treadmill and a.v. cart),
Cerumen Removal		1	120	120		1 work station, sink,Adjustable height examination chair, ENT medical type
Voice Lab/Assistive Technology Room		1	300	300		2 carts with cart mounted equipment, built in storage cabinets with lockable
Clinic 6: CPD Classroom Clinic			net sf	7,720	10808 gross sf	
Reception Area / Waiting		1	400	400		
Reception Desk		1	100	100		
Offices (Faculty)		8	120	960		
Storage		2	250	500		
Classroom (Early Childhood)		2	1,100	2,200	Adjacent to playground	children sized furniture, sink, toy storage cabinets, changing area, cameras,
Classroom (ASSERT)		1	1,800	1,800	Adjacent to playground	children sized furniture, sink, toy storage cabinets, changing area, cameras,
Children's toilet rooms		3	150	450	Adjacent to classrooms	mobile partitions for 10 temporary cubicles, exterior playground space
Observation Room		3	150	450	Adjacent to classrooms	children's sized fixtures
Supervisor Office		3	120	360	Adjacent to classrooms	under counter light, telephone, speakers, headphone jacks, workstation
Check out Library		1	500	500		
Clinic 7: Center for Persons with Disabilities			net sf	8,910	12474 gross sf	
Reception Area / Waiting		1	400	400		
Reception Desk		1	100	100		
Directors Suite		1	1000	1,000		
Offices (Faculty)		28	120	3,360		
Office (Director)		1	200	200		
Storage		3	150	450		
Distance Classroom		1	1,000	1,000		
Large Conference Rooms	30	1	900	900		
Small Conference Rooms		5	300	1,500		includes (work areas)

Total Net Square Footage **75,388**

Total Gross Square Footage Estimate **105,543**
1.4 multiplier

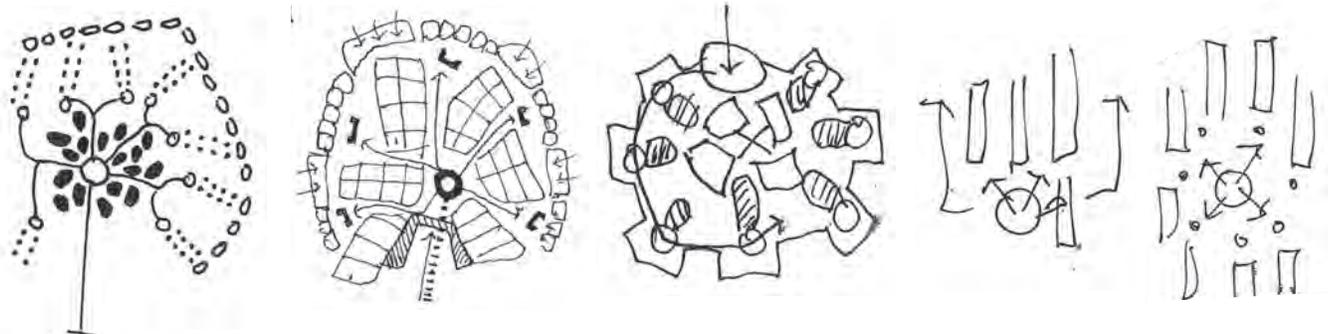
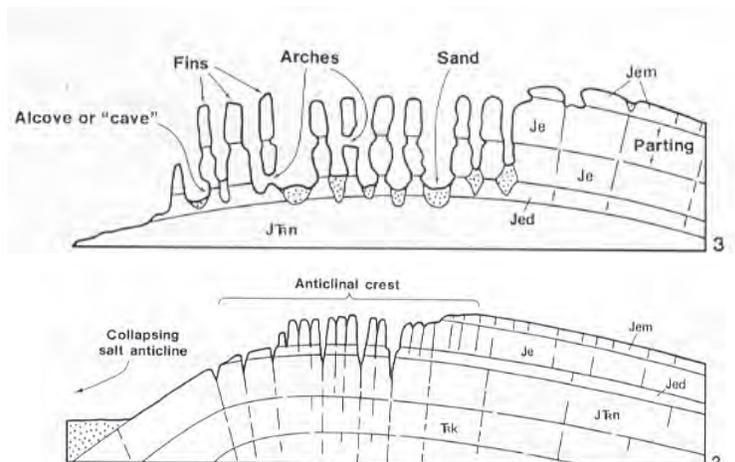
Conceptual Vision



The College of Education and Human Services has expressed the importance of creating an Interdisciplinary environment within the new Clinical Services Building. To do so, it is important to overlap and integrate the functions, operations, and personnel of each of the diverse clinics throughout the building, while also maintaining each clinics' identity.

As a basis of conceptual framework for organizing the elements and form of the new building, we look towards the arrangement of the sandstone fin structures in Southern Utah. These fins, laminated together, form a unified geological strata, yet are separated enough to allow space and light to flow between, creating a unique experience at each individual fin.

Following the metaphor of integrated - yet individual; the idea of laminating interdisciplinary strands becomes the organizing principle for designing the new Clinical Services Building.



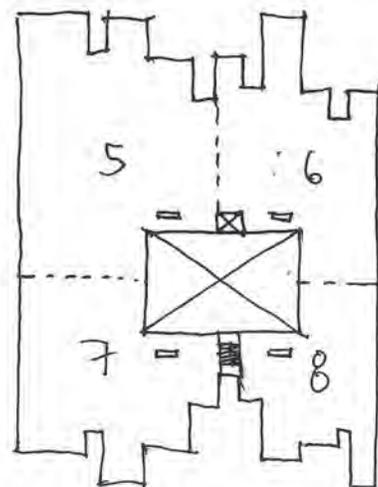
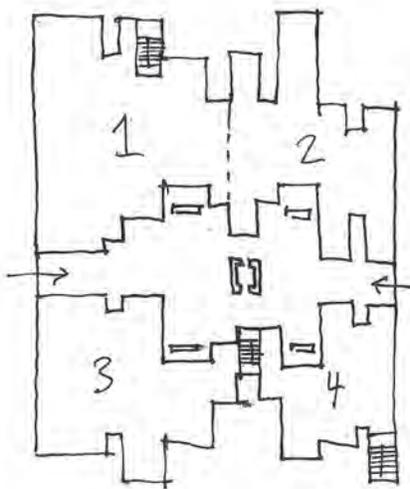
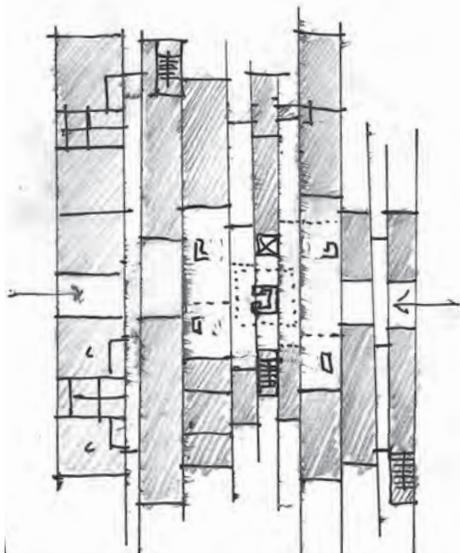
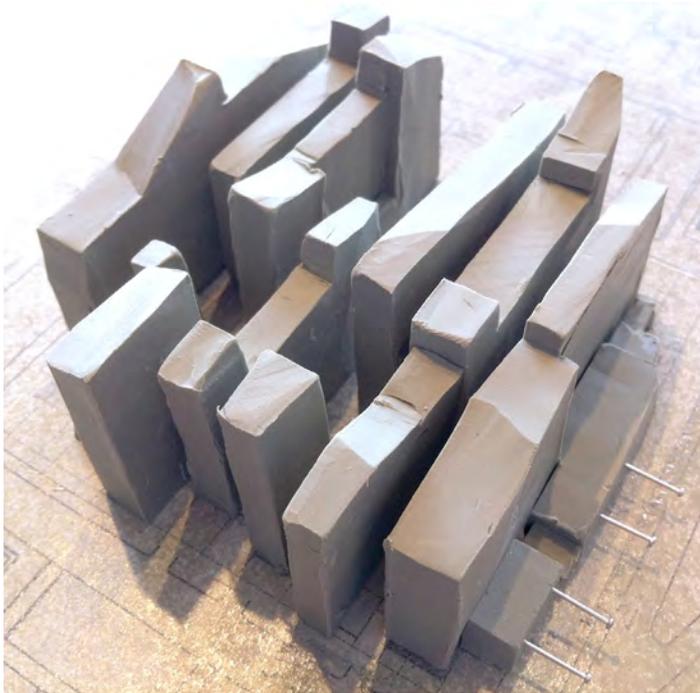
Preliminary Flow Diagrams for Interdisciplinary Clinics

Spatial Vision

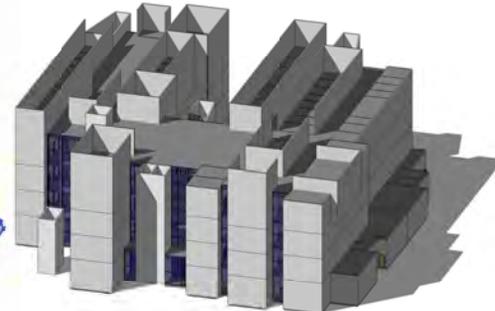
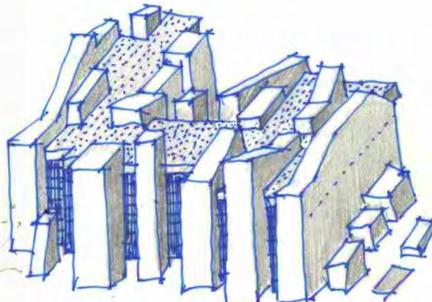
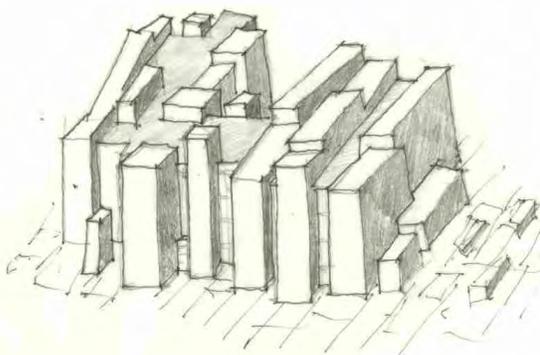
While studying a preliminary building form and interior organization, derived from the conceptual vision stated in this document, we investigated ways to laminate the individual clinics together in order to create a collaborative interdisciplinary environment.

Critical to the proposed organization of various clinics is the space between each individual clinic; and more importantly an overriding central open space that connects the main building entrance with each specific clinical branch. This “negative space” links the various disciplines, spaces, and entrances within; overall creating an integrated, dynamic experience.

This integration of programmatic space that is more open and less compartmentalized not only helps patients navigate to their specific destination, but also provides inspiration and comfort in their experience of receiving highly sensitive clinical services.



Preliminary Clinical Organization Diagrams



Preliminary Massing Studies

3.3

Program Organization

Floor Plan Diagram

Legend:

- Clinic 1
- Clinic 7
- Clinic 2
- Common Spaces
- Clinic 3
- Offices
- Clinic 4
- Open Workspace
- Clinic 5
- Shared Therapy
- Clinic 6
- Cafe / Seating
- Gallery Walls

*Floor plan diagrams are to show adjacencies. Actual area requirements to be determined in programming.



Level 1

3.3

Program Organization

Floor Plan Diagram

Legend:

- Clinic 1
- Clinic 7
- Clinic 2
- Common Spaces
- Clinic 3
- Offices
- Clinic 4
- Open Workspace
- Clinic 5
- Shared Therapy
- Clinic 6
- Cafe / Seating
- Gallery Walls

*Floor plan diagrams are to show adjacencies. Actual area requirements to be determined in programming.



3.3

Program Organization

Floor Plan Diagram

Legend:

- Clinic 1
- Clinic 7
- Clinic 2
- Common Spaces
- Clinic 3
- Offices
- Clinic 4
- Open Workspace
- Clinic 5
- Shared Therapy
- Clinic 6
- Cafe / Seating
- Gallery Walls

*Floor plan diagrams are to show adjacencies. Actual area requirements to be determined in programming.



Level 3

3.3

Program Organization

Floor Plan Diagram

Legend:

- Clinic 1
- Clinic 2
- Clinic 3
- Clinic 4
- Clinic 5
- Clinic 6
- Clinic 7
- Common Spaces
- Offices
- Open Workspace
- Shared Therapy
- Cafe / Seating
- Gallery Walls

*Floor plan diagrams are to show adjacencies. Actual area requirements to be determined in programming.

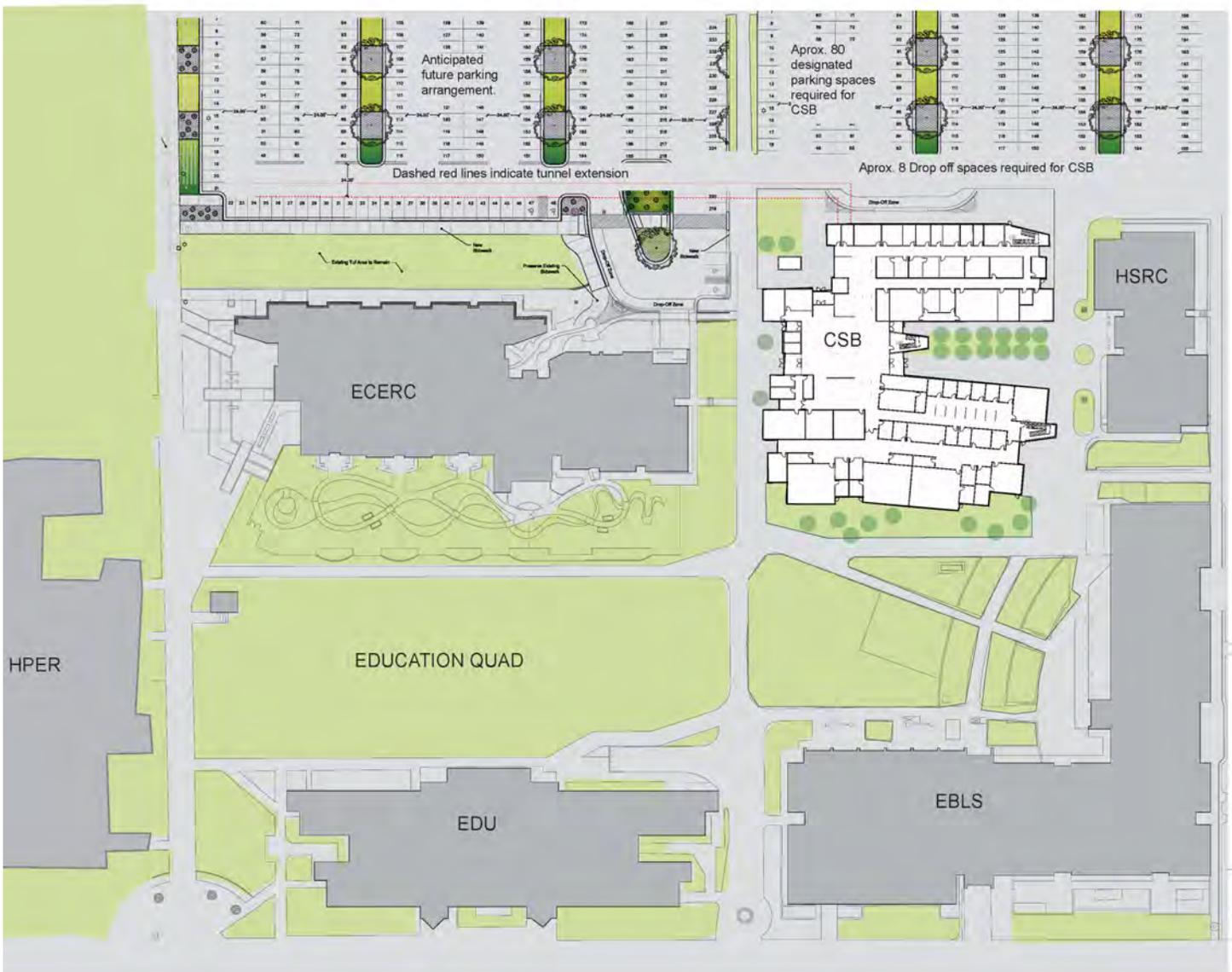


Level 4

Preliminary Site Planning

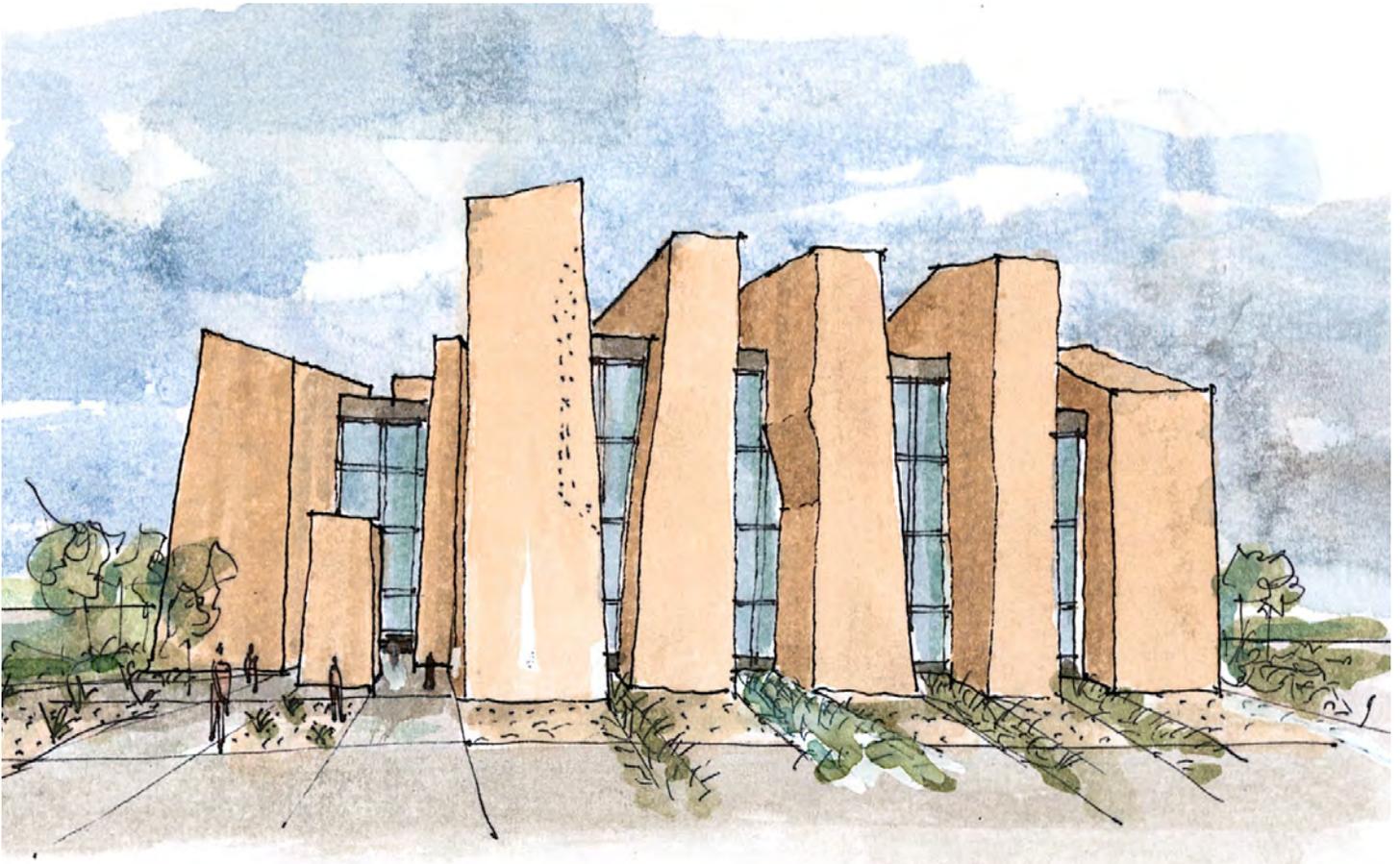
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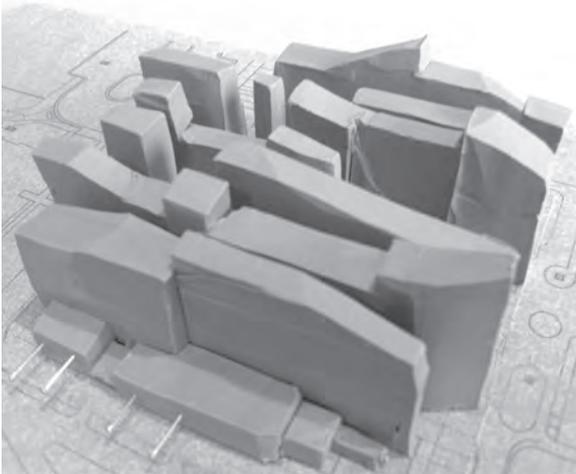
The preferred site for the new facility is in the location of the current Center for Persons with Disabilities Building. The Steering Committee has agreed that this site will provide maximum opportunities for enhancing the College of Education and Human Services Quad.



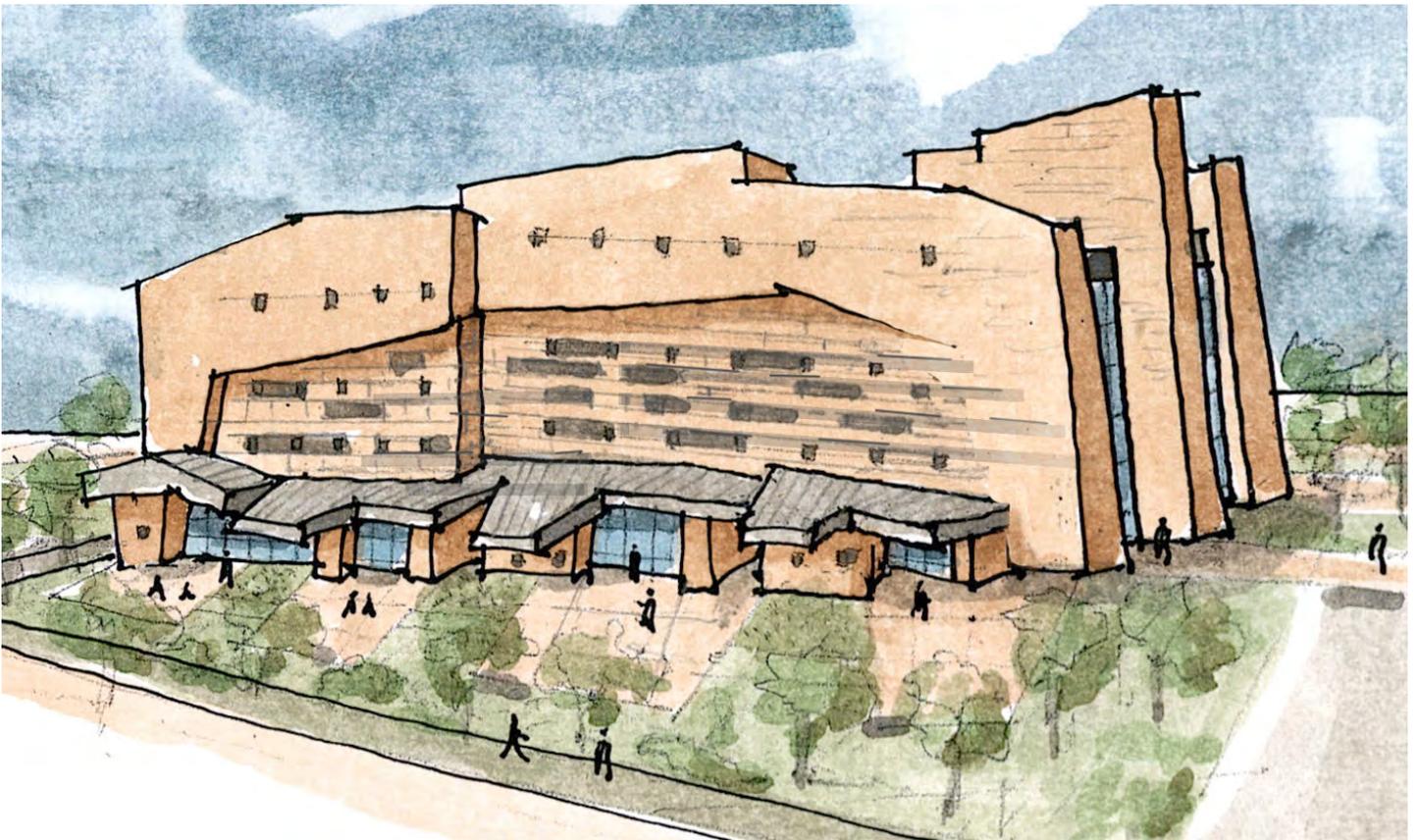


View from the West





View from the South



3.5 | Program Organization Preliminary Massing Studies



View from the South East



3.6 | Program Organization Preliminary Massing Studies

View from inside Main Lobby



4.1

Cost Estimate

USU Clinical Services Building			
Statement of Probable Construction cost, provided by Spindler Construction			
2012 10 11			
Base Program 103,000 sq ft			
Site Work			
1	site clearing		\$83,429
2	topsoil		\$64,000
3	walks		\$81,500
4	retaining walls- benches		\$48,000
5	stairs		\$25,000
6	railings		\$30,000
7	pavers		\$64,200
8	flagstone		\$38,500
9	water		\$40,000
10	sewer		\$65,014
11	storm drain		\$69,492
12	asphalt		\$76,396
13	pedestrian lights		\$59,300
14	ornamental fence		\$76,100
15	play structure allowance (assumes reuse of some existing)		\$30,000
16	natural playground features		\$36,000
17	bicycle racks		\$24,000
18	bicycle racks install		\$2,339
19	site furnishings		\$31,590
20	high voltage duct bank and manhole		\$120,000
21	site cleanup		\$8,000
			\$1,072,860
Building Construction			
	3d Building Information Modeling		\$80,000
2000	Site earthwork	\$ 2.61	\$268,830
2000	structural earthwork cost	\$ 1.58	\$162,740
	Gravel under slab	\$ 0.09	\$9,270
	Green roof	\$ 0.31	\$81,500
3000	Concrete footing foundations floors	\$ 8.50	\$875,500
	Hoisting cranes for trades	\$ 2.60	\$267,800
	Concrete Pumping	\$ 0.75	\$77,250
	concrete form access	\$ 0.45	\$46,350
	Exterior Vapor barrier	\$ 0.15	\$15,450
4000	Exterior Skin	\$ 26.10	\$2,688,300
	Heat and weather for ext.	\$ 0.75	\$77,250
5000	Structural Shell	\$ 19.20	\$1,977,600
	Steel Erection	\$ 6.20	\$638,600
	sunshades	\$ 1.10	\$113,300
	Stairways	\$ 1.20	\$123,600
	Stairway Railings	\$ 2.80	\$288,400
	Gratings	\$ 0.32	\$32,960
	Structural Studs and exterior sheathing	\$ 5.91	\$608,730
	Expansion joints	\$ 0.80	\$82,400
6100	Carpentry	\$ 0.92	\$94,760
6402	Arch Woodwork	\$ 7.15	\$736,450
	Wood Paneling	\$ 4.20	\$432,600
	hallway upgrades for durable finishes		\$103,000
	foundation waterproofing	\$ 0.30	\$30,900
	Sound Insulation	\$ 0.48	\$49,440
	waterproofing exterior shell	\$ 0.52	\$53,560
7210	Building Insulation	\$ 0.82	\$84,460
	Roofing and sheet metal	\$ 3.25	\$334,750
	Decks		\$103,000

4.1 | Cost Estimate

7620	Skylights	\$	1.07	\$109,798
	EIFS on roof	\$	0.20	\$20,600
	support finishes Janitorial storage	\$	0.37	\$38,110
7920	joint sealers	\$	0.37	\$38,110
8111	Doors and hardware	\$	6.80	\$700,400
	Door and Hardware install	\$	0.90	\$92,700
	folding fire doors	\$	1.20	\$123,600
8211	access doors	\$	0.04	\$4,120
	curtain wall, entries glass and glazing	\$	7.30	\$751,900
	Quality control for trades	\$	0.85	\$87,550
9000	drywall and Interior studs	\$	10.70	\$1,102,100
9260	Fire stopping	\$	0.19	\$19,570
	fireproofing	\$	3.21	\$330,630
	Ceramic Tile	\$	2.10	\$216,300
9653	Entry Mats	\$	0.25	\$25,750
	Flooring	\$	3.78	\$389,340
9680	Ceilings	\$	2.19	\$225,570
	Add for wood ceilings and drops			\$103,000
	Painting	\$	2.30	\$236,900
	Toilet Partitions	\$	0.25	\$25,750
10155	Toilet Accessories	\$	0.27	\$27,810
	Building lettering	\$	0.13	\$13,390
	Interior signage	\$	0.25	\$25,750
	Window Blinds	\$	0.11	\$11,330
	Window Shades	\$	0.37	\$38,110
	Marker Boards	\$	0.45	\$46,350
	Window Washing Supports	\$	0.38	\$39,140
	Fire Extinguisher	\$	0.04	\$4,120
11400	appliance	\$	0.25	\$25,750
	Fire sprinkler	\$	2.87	\$295,610
13500	Elevator	\$	3.39	\$349,170
15000	Mechanical	\$	55.50	\$5,716,500
	Smoke Control System for Atrium			\$125,000
	Test and Balance	\$	0.65	\$66,950
	Snow melt	\$	0.85	\$87,550
	Electrical	\$	32.20	\$3,316,600
	Dailey Cleaning	\$	1.10	\$113,300
	Final Cleaning	\$	0.48	\$49,440
	Recycling	\$	0.35	\$36,050
	LEED implementation	\$	0.70	\$72,100
	Building general conditions support			\$279,000
	Building Total	\$	254.72	\$26,022,568
	Project Summary			
	Demolition of existing building		\$100,000	
	Tunnel extension (480 feet)		\$1,650,000	
	Site Work		\$1,072,860	
	Building Construction		\$26,022,568	
	Construction Fee		\$980,000	
	Superintendent-managers		\$360,000	
	Construction contingency		\$690,000	
	Total estimated cost		\$30,875,428	2013 calendar year
	Escalated cost for construction in 2015		\$35,197,988	7% escalation per year
	Excludes cost of relocating building occupants who will be displaced from CPD building during construction			



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PROJECT DIRECTORY

Project: USU Clinical Services Building

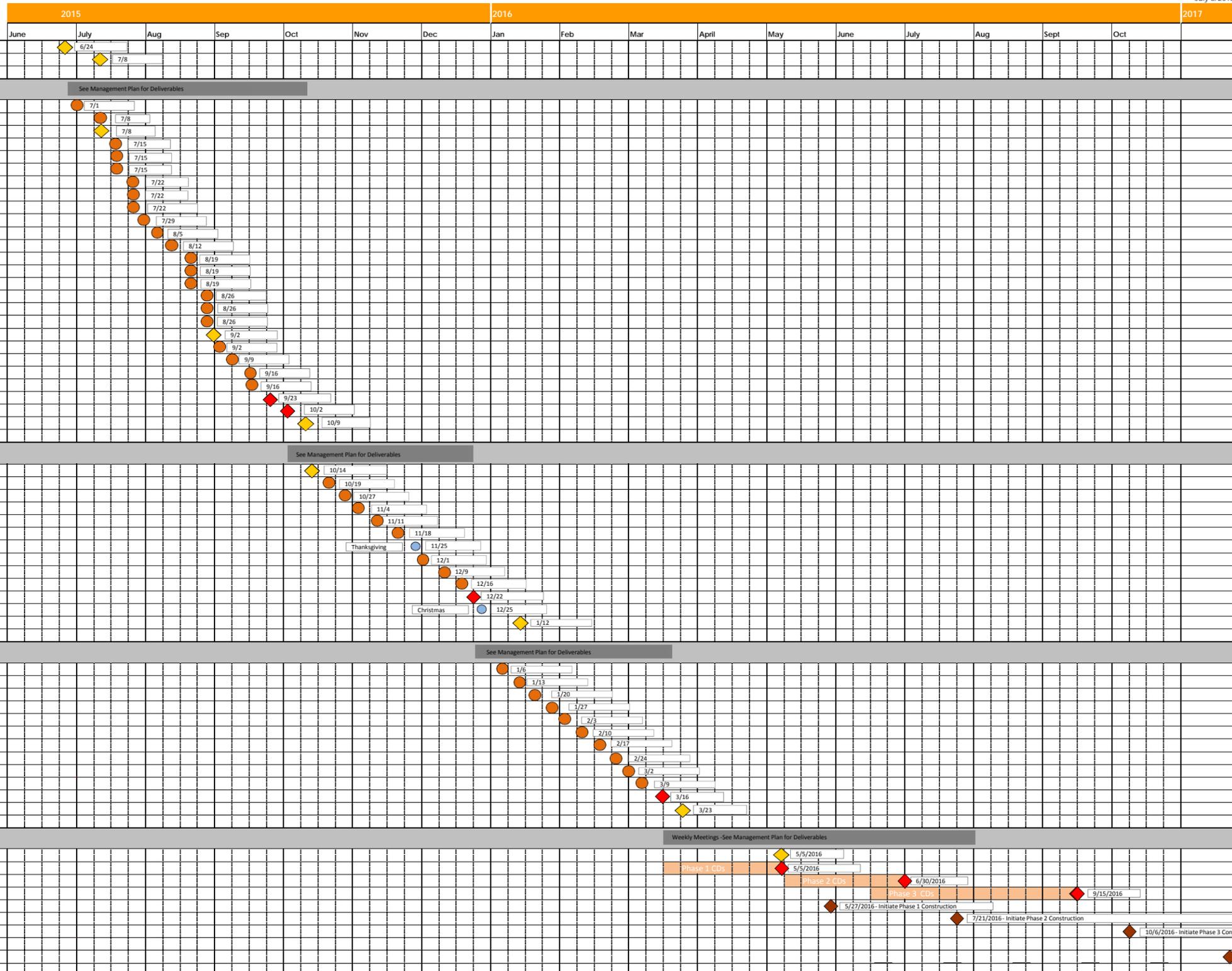
Utah State University, Logan, Utah

Owner #:

Project Number: 2012-06

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- ◆ Design Team Deadline
- ◆ Owner/User Deadline
- ◆ Contractor Deadline
- Meeting/Workshop
- Holiday



**PRE-DEMOLITION/RENOVATION INSPECTION
FOR ASBESTOS, LEAD, AND
UNIVERSAL, HAZARDOUS AND TOXIC WASTES**

**Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah 84322**

June 8, 2015

Submitted to:

Mr. Robert J. Anderson
Improvements Project Manager
State of Utah - DFCM
4110 State Office Building
Salt Lake City, Utah 84114

Prepared by:

A handwritten signature in black ink, appearing to read "Claude Dahlk".

Claude Dahlk, CHMM, CIEC
Asbestos Inspector ASB-0433

Reviewed by:

A handwritten signature in black ink, appearing to read "Erin C. Hallenburg".

Erin Hallenburg, P.E.
President, Hill West Environmental

TABLE OF CONTENTS

Table of Contents

EXECUTIVE SUMMARY	i
1.0 INTRODUCTION	1
2.0 BUILDING DESCRIPTION	1
3.0 INSPECTION PROCEDURES.....	3
3.1 Asbestos-Containing Materials (ACM)	3
3.2 Bulk Sample Collection	3
4.0 INSPECTION RESULTS	5
4.1 Asbestos-Containing Materials	5
4.2 Non-Asbestos-Containing Materials	5
4.3 Bulk Sample Analytical Results	5
4.4 Damage and Hazard Assessment	6
4.5 Homogeneous Areas with Special Considerations	7
4.6 Suspect Materials Presumed to be Asbestos-Containing Materials.....	8
4.7 Inaccessible Areas.....	8
4.8 Material(s) assumed to contain >1.0% asbestos	8
5.0 RESPONSE ACTIONS	9
5.1 Applicable Rules and Regulations	9
5.3 Renovation and Demolition (EPA and OSHA)	10
6.0 COST ESTIMATES	11

Appendices

Appendix A:	Data Tables (Asbestos)
Appendix B:	Building Floor Plans (Asbestos)
Appendix C:	Laboratory Reports
Appendix D:	Photographs (Asbestos)
Appendix E:	Lead Inspection Report
Appendix F:	Universal, Hazardous and/or Toxic Waste Inspection Report
Appendix G:	Project Limitations

EXECUTIVE SUMMARY

On May 18, 2015, Hill West Environmental conducted a pre-demolition inspection of Utah State University – Center for Persons with Disabilities Building (CPD), located at 6800 Old Main Hill, Logan, Utah. Mr. Robert J. Anderson, Improvements Project Manager with the State of Utah, Division of Facilities Construction and Management (DFCM), requested this inspection to identify asbestos-containing materials (ACM); building components with lead-containing coatings; and Universal, Hazardous and Toxic waste materials that need to be addressed before the building is renovated or demolished. Hill West identified the following materials during this inspection:

Asbestos-Containing Materials

- 1,000 ft² Tan 12" Floor tile with black mastic in Rooms 100D, 101D, 151B, 163, 168, 169, 173C and 181B.
- 1,550 ft² Beige 12" Floor tile and black mastic in Rooms 181, 181A and 181C.
- Sink undercoating – White and Black five (5) sinks See ACM Location Figure 1.
- 200 ft² of Stair tread leading to boiler room.
- 100 ft² of Tan 9" Floor tile and black mastic leading to boiler room.
- One (1) Transite laboratory hood in Room 181.
- The roof has a PVC liner and therefore no samples of the flat roof were collected. All roofing material should either be assumed to contain asbestos or sampled prior to demolition.

Building Components with XRF Lead readings ≥ 0.4 mg/cm²

- All Glazed wall tile in bathrooms/converted offices/storage are positive for lead (3.6 mg/cm² – 11.5 mg/cm²). The following rooms have tile:

100F	155C	161C	191A
100G	157A	164B	192
113	167A	173D	194
115	160B	174D	
123A	185B	188B	

Estimated Quantity: 3,600 ft²

- All Plaster Walls (0.6 mg/cm² – 3.9 mg/cm²) within the following rooms/areas:

124	164A	South Hallway
150	172A	Southeast Hallway
165	173A	
161A	174B	
163A	175	

Estimated Quantity: 8,900 ft²

- Office Wall Dividers (0.6 mg/cm² – 2.1 mg/cm²) within the following rooms:

157	164
-----	-----

Estimated Quantity: 800 ft²

- Metal Ladders located in basement (20.6 mg/cm²)
- Exterior Fire Hydrant (1.1 mg/cm²)

Universal, Hazardous, and Toxic Wastes

- 2,240 mercury vapor fluorescent light tubes
- 1,120 PCB Ballasts
- Three (3) non-labeled PCB Transformers inside basement electrical room
- Units containing CFC coolant
 - 4 Refrigerators
 - 12 Drinking fountains
 - 2 Vending machines
 - 2 Wall mounted AC Units
 - 3 Exterior AC Units
- Hazardous chemicals in laboratories including oils, acids/bases, solvents and other reagents (Items were not inventoried as these items will be re-used for their intended purpose.
- 1 Lead-acid battery

Conclusions

ACM – This material is not regulated under EPA, however, OSHA regulations do apply for worker exposures to asbestos. Therefore, Hill West recommends that a Utah-certified abatement contractor remove and properly dispose of the ACM in this building that may be disturbed during future demolition or renovation projects.

Lead – If workers perform any construction activities that may create lead-containing dust or fume, they must follow the requirements of the Occupational Safety and Health Administration (OSHA) Lead in Construction Standard, 29 Code of Federal Regulations (CFR) 1926.62. This standard requires, among other things, lead training, and initial exposure assessment, respiratory protection and worker hygiene facilities.

Subtitle C of the Resource Conservation and Recovery Act (RCRA) requires the generator to determine if demolition wastes are hazardous. Toxicity Characteristic Leaching Procedure (TCLP) testing is the preferred method for determining this. The demolition wastes from this project should undergo TCLP testing prior to disposal to determine if they are hazardous.

Universal, Hazardous and Toxic Wastes – DFCM follows the protocols for identification and disposal of hazardous materials developed by the Salt Lake Valley Health Department (SLVHD). These protocols require building owners to identify and remove all universal, hazardous and/or toxic waste from buildings before they are demolished. Disposition of these materials must follow Environmental Protection Agency (EPA) guidelines outlined in 40 CFR 173 (Shippers – General Requirements for Shipments and Packaging), As such, Hill West recommends that the materials identified during this inspection be removed and disposed/recycled by properly trained and licensed contractors.

Cost Estimates

Hill West's cost estimates to remove the hazardous materials outlined above are:

- **Asbestos-containing Materials:** **\$9,750.00**
- **Hazardous Materials (Universal Wastes):** **\$9,000.00***

* If the transformers located in the basement are in-fact PCB, the estimated costs may increase by an additional \$9,000.00 for disposal and transportation of the three transformers.

The cost estimates above are provided for use in long-term budgeting and planning only and do not have a level of accuracy sufficient to be used as construction design cost estimates. The actual cost of asbestos removal is highly dependent on a number of factors such as the size of the job (single room or mechanical enclosure, or an entire floor or building); the required time frame for removal; the time of year the job is conducted ; and travel time and distance to the job for the contractor. Therefore, actual removal costs could vary significantly from these estimates.

The cost estimates attempt to capture the costs associated with the removal of all asbestos-containing materials identified in this survey as part of one removal contract. Materials replacement, contractor mobilization cost and consultant abatement management costs are not included in these estimates and can substantially add to the project costs.

The estimated costs of removing lead-containing materials are not included here because there is not regulatory requirement to remove lead. Some lead-containing materials may not be disturbed during the renovation and may therefore remain in-place. In addition, disposal costs of demolition waste may vary significantly, depending on TCLP testing.

The report that follows this Executive Summary should be read in its entirety because it includes important information, such as material descriptions and locations, regulatory requirements, and building specific recommended response actions.

**Executive Summary
Asbestos-containing Materials by Homogeneous Area**

**Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah 84322**

State of Utah - DFCM

Homogenous Area Number	Material Description/Location	Asbestos Content	Amount	Cost Estimate (1)
M001	12" Tan Floor Tile Rooms 173C, 100D, 168, 169, 163, 151B, 101D, 181B	5% Chrysotile >1% Chrysotile in Mastic	1,000 ft ²	\$3,000
M005	12" Beige Floor Tile Rooms 181, 181A, 181C	>1% Chrysotile >1% Chrysotile in black mastic	1,550 ft ²	\$4,650
M007	Sink Undercoating – White Room 181A	5% Chrysotile	1 Sink	\$200
M008	Sink Undercoating – Black Rooms 170, 174, 151, 152A	5% Chrysotile	4 Sinks	\$800
M010	Stair Tread – Tan Boiler Room Stairwell	>1% Chrysotile	200 ft ²	\$600
M011	9" Tan Floor Tile Stairwell landing to Boiler Room	5% Chrysotile	100 ft ²	\$500
M015	Transite in Laboratory Hood Room 181	Assumed	1 Hood	\$0*

* This item should be re-used for its intended purpose in another laboratory.

Note 1: Cost Estimates include asbestos removal costs only; abatement design, management fees and replacement costs are not included. Please refer to Section 6.0 for more details.

Pre-Demolition/Renovation Asbestos Inspection Report

Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah 84322

1.0 INTRODUCTION

On May 18, 2015, Hill West Environmental conducted an asbestos survey of the CPD Building located at 6800 Old Main Hill, Logan, Utah 84322. The purpose of this survey was to identify the existence, extent, and condition of both friable and non-friable asbestos-containing materials (ACM) within the facility. Bulk samples were collected from suspect materials and analyzed for asbestos content. Each occurrence of ACM was assessed for damage and friability. Appendix A contains Data Tables that have been prepared by the inspector based on the results of this inspection.

2.0 BUILDING DESCRIPTION

Building Identification

Building Name..... CPD Building
Building Address..... 6800 Old Main Hill, Logan, Utah

Building Construction

Building Construction Date..... 1972
Renovations..... None
Building Type..... Classrooms/Offices
Building Total Sq. Ft..... 36,216 ft²
Structural System..... Steel beams with concrete/brick
Exterior Wall Construction..... Brick
Floor Deck Construction..... Reinforced concrete/metal
Roof Construction..... Flat roof with PVC liner.
Floors Above Grade..... 1
Floors Below Grade..... 1

Pre-Demolition/Renovation Asbestos Inspection Report

Interior Finishes

Floors.....	Concrete, ceramic tile, 12" floor tile, 9" floor tile and glued-down carpet
Walls.....	Concrete, brick, plaster, and sheetrock wall system
Attic.....	Fiberglass insulation
Crawl space.....	None

Building Mechanical

Heating System.....	Natural gas with forced air
Main Heating Distribution.....	Forced air
Cooling Plant.....	None
Main A/C Distribution.....	Exterior AC unit

Appendix B contains the floor plans of the building with all known asbestos locations as well as sample locations.

Pre-Demolition/Renovation Asbestos Inspection Report

3.0 INSPECTION PROCEDURES

3.1 Asbestos-Containing Materials (ACM)

All accessible areas of the facility were visually inspected to identify suspect asbestos containing materials (ACM.) All accessible surfaces, structures, and mechanical systems within these areas were examined and all suspected ACM was touched to determine friability.

Suspect ACM was identified and assessed in homogeneous areas. A homogeneous area is defined as a single material, uniform in texture and appearance, installed at one time, and unlikely to consist of more than one type, or formulation, of material. In cases where joint compound and / or tape has been applied to wallboard (gypsum board) and cannot be visually distinguished from the wallboard, it is considered an integral part of the wallboard and in effect becomes one material forming a wall or ceiling "system."

Each homogeneous area was given a unique material identification number. Each ID number begins with a letter: "S" for surfacing materials, "T" for thermal system insulation, or "M" for miscellaneous materials. This letter is followed by a three-digit number, assigned in consecutive order. This number is used to identify the homogeneous area throughout the inspection report.

3.2 Bulk Sample Collection

Bulk samples were collected from all accessible homogeneous areas of suspect ACM for subsequent laboratory analysis to determine actual asbestos content. Sampling was conducted in a manner that minimized damage to the building, did not leave any unsightly marks, and did not create a health hazard for the inspectors.

The number of samples collected from each homogeneous area generally followed the EPA Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR §763.86). Friable surfacing materials were sampled using the random sampling scheme given in the EPA publication 560 / 5-85-30a, titled "Asbestos in buildings: Simplified Sampling Scheme for Friable Surfacing Materials." Between three and seven samples were collected from friable surfacing materials, depending on the size of the homogeneous area. Bulk sample IDs collected during the inspection were entered on chain-of-custody forms for submittal to the analytical laboratory.

Pre-Demolition/Renovation Asbestos Inspection Report

3.3 Bulk Sample Analysis

Bulk samples were analyzed using polarized light microscopy (PLM) and visual estimation in accordance with the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA-600 / M4-82-020. Samples were analyzed by Dixon Information, Inc. 78 West 2400 South, South Salt Lake City, Utah 84115. The laboratory is accredited under the National Institute of Standards and Technology–National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk-asbestos sample analysis and is also accredited by the American Industrial Hygiene Association (AIHA).

Federal EPA’s National Emissions Standards for Hazardous Air Pollutants (NESHAP) and AHERA regulations define ACM as material containing greater than 1% asbestos by weight; materials containing less than 1% asbestos are not considered regulated ACM.

Further, the NESHAP regulations state that any sample found to contain less than 10% asbestos but greater than “none detected,” by visual estimation, must be assumed to contain greater than 1% asbestos unless confirmed to be less than 1.0% asbestos by point counting analysis.¹

Despite EPA and Utah Division of Air Quality (UDAQ) rules exempting building materials containing 1% or less asbestos from stringent regulation, OSHA regulations outline specific precautionary work practices when employees work with materials containing even trace amounts of asbestos.²

The laboratory reports can be found in **Appendix C** of this report.

¹ NESHAP point counting includes examining materials under a polarizing microscope using an eyepiece reticule that superimposes a grid of points over the field of view; 400 points are examined.

² OSHA regulations pertaining to asbestos in buildings include 29 DFR 1926.1001. OSHA has also issued interpretive letters that provide clarification about how materials containing less than 1% asbestos should be handled. (See www.osha.gov)

Pre-Demolition/Renovation Asbestos Inspection Report

4.0 INSPECTION RESULTS

4.1 Asbestos-Containing Materials

The Executive Summary and **Table 1** in **Appendix A** list all homogeneous areas that contain asbestos. Each material is described by type of material, friability and visual appearance.

Friability is defined in accordance with EPA's NESHAP regulations.

"Friable ACM" is any material containing more than 1% asbestos (as determined by PLM) that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure and also includes non-friable ACM that may become friable during building demolition.

"Non-friable ACM" is any material containing more 1% asbestos (as determined by PLM) that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

"Category I non-friable ACM" are asbestos-containing resilient floor coverings (commonly known as vinyl asbestos tile (VAT), asphalt roofing products, packings, and gaskets.

"Category II non-friable ACM" encompasses all other non-friable ACM.

"Non-friable RACM" is used to denote thermal system insulation that is in good condition but would become friable during renovation or demolition and therefore is "regulated asbestos containing material" (RACM).

4.2 Non-Asbestos-Containing Materials

Homogeneous areas of suspect ACM are identified as *non*-ACM if the laboratory analysis shows the material to contain no detectable asbestos. **Table 2**, located in **Appendix A** of this report, lists all homogeneous areas that were found to be non-ACM.

4.3 Bulk Sample Analytical Results

Table 3, located in **Appendix A**, lists all of the bulk samples in order by sample number, that were collected from homogeneous areas of suspect ACM, along with the laboratory analytical results. Each sample was given a unique sample number. There may be more than one sample number for the same homogeneous area of suspect ACM. The homogeneous areas of suspect ACM are identified on this table by their material identification numbers. The sample location listed on this table provides a brief, but specific, description of the location where the sample was collected. This is different than the

Pre-Demolition/Renovation Asbestos Inspection Report

homogeneous area location provided on **Tables 1 and 2**. The sample locations listed in **Table 3** provide a short description of the location where the sample was collected. This is different from the homogeneous area location provided on **Tables 1 and 2**. **Table 4** is the same as **Table 3**, except the entries has been sorted by homogeneous area number. Appendix D contains photographs of suspect ACM samples that were collected during this inspection.

4.4 Damage and Hazard Assessment

Each homogeneous area of ACM has been assessed for existing damage, accessibility, and potential for future damage and this information is presented in **Table 5**, located in **Appendix A** of this report. This table also lists the substrate present beneath each homogeneous area of ACM.

Each homogeneous area of friable ACM and asbestos-containing building material (ACBM) was classified into one of the following seven categories, as specified in EPA's AHERA regulations (40 CFR 763.88):

- (1) Damaged or significantly damaged thermal system insulation ACM.
- (2) Damaged friable surfacing ACM.
- (3) Significantly damaged friable surfacing ACM.
- (4) Damaged or significantly damaged friable miscellaneous ACM.
- (5) ACBM with potential for damage.
- (6) ACBM with potential for damage.
- (7) Any remaining friable ACBM or friable suspected ACBM.

The damage categories are defined as follows:

“Undamaged” means the material had no visible damage, or extremely minor damage or surface marring (i.e., a room full of floor tile with only two or three small corners chipped off on the tile).

“Damaged” means the material had visible damage evenly distributed over less than 10% of its surface, or localized over less than 25% of its surface.

“Significantly Damaged” means the material had visible damage that is evenly distributed over 10% or more of its surface or localized over 25% or more of its surface.

Pre-Demolition/Renovation Asbestos Inspection Report

Each homogeneous area of ACM was evaluated for accessibility to the building occupants and the general public, assuming the building was fully occupied, using the following assessment categories.

“Inaccessible” means the material was located in an area that people had no reason to enter and could not access without special measures. One example would be above a solid ceiling.

“Rarely Accessed” identifies a material that was in a location that could be accessed but wasn’t unless there was a specific need. An example would be a pipe tunnel. Another example would be a high ceiling that is out of reach and not subject to any specific disturbance.

“Periodic Access” identifies a material that was in a location that was accessible, was not occupied full time, but was accessed on a routine basis. An example would be a mechanical room or boiler room.

“Continuous Access” identifies a material that was in a location that was occupied full time and was within reach of the occupants, or was frequently subject to direct disturbance. Examples would be exposed floor tile or a normal height ceiling.

4.5 Homogeneous Areas with Special Considerations

Metal doors: All room/area entrances had metal doors that may contain asbestos.

Pre-Demolition/Renovation Asbestos Inspection Report

4.6 Suspect Materials Presumed to be Asbestos-Containing Materials without Laboratory Analysis

Location	Asbestos Material	Quantity
Chemistry Laboratory	Transite sheets inside Lab Hood	1
Flat Roof	Flat Roof	33,560 ft ²

4.7 Inaccessible Areas

Some building structures may have been constructed after the application of ACM, and therefore may have obscured these materials from visual examination during this inspection. Typical scenarios include thermal system insulation inside hardened mechanical chases, floor tile, and mastic under walls, and sprayed on texturing and/or fireproofing behind structural supports or architectural features.

4.8 Material(s) assumed to contain >1.0% asbestos without subsequent TEM or Point Count Analysis

Stair Tread (M010) leading to boiler room and Beige 12" Floor tile with black mastic (M005).

Pre-Demolition/Renovation Asbestos Inspection Report

5.0 RESPONSE ACTIONS

5.1 Applicable Rules and Regulations

In Utah, EPA asbestos regulations are administered by the UDAQ).³ Utah Occupational Safety and Health Administration (UOSHA) has adopted the Federal OSHA regulations.⁴ In addition, the SLVHD regulates demolition activities in Salt Lake County.⁵ The SLVHD regulations for pre-demolition building inspections require an asbestos inspection, but also required building owners to inspect the building for other hazardous materials such as universal wastes, hazardous and toxic wastes and lead-based paint. Similar to asbestos, these wastes, if present must be removed prior to demolition.

Regulatory factors relevant to lead-based paint abatement decision-making are included in **Appendix E**. This inspection also included documentation for the removal of Universal, Hazardous and/or Toxic Waste from the building prior to demolition which is provided in **Appendix F**.

³ R307-801. Asbestos, Utah Division of Air Quality Rules, Implementation of Toxic Substances Control Act Title II, Asbestos Certification, Asbestos Training, notifications and Asbestos Work Practices for Renovations and Demolitions (See www.airquality.utah.gov).

⁴ Asbestos, Tremolite, Anthophyllite, and Actinolite Standards, Chapter D (Construction), Section 58; and Chapter Z (General Industry), Section 1001, Utah Occupational Safety and Health Rules and Regulations (Administered by Utah Occupational Safety and Health Division) (See www.uosh.utah.gov).

⁵ Salt Lake City – County Health Department, Health Regulation #1 Section 12 (See www.slvhealth.org).

Pre-Demolition/Renovation Asbestos Inspection Report

5.2 Renovation and Demolition (EPA and OSHA)

A listing of ACM found during this inspection is presented in the Executive Summary at the front of this report and in **Appendix A, Table 1**.

NESHAP regulations require the removal of friable ACM and non-friable ACM that could become friable during demolition activities. Therefore, we recommend that all of the ACM in this building be removed and properly disposed of by a licensed asbestos abatement contractor before renovation activities begin which have the potential of disturbing areas where these materials are located.

Despite EPA and UDAQ rules exempting building materials containing 1% or less asbestos from stringent regulation, OSHA regulation outline specific precautionary work practices when employees work with materials containing even trace amounts of asbestos. Strict compliance by building owners with OSHA asbestos regulations may result in response actions not required by EPA and Utah DAQ for certain unregulated materials⁶.

⁶ OSHA regulations pertaining to asbestos in buildings include 29 CFR 1926.1101 and 29 CFR 1910.1001. OSHA has also issued interpretive letters that provide clarification about how materials containing less than 1% asbestos should be handled. (See www.osha.gov).

Pre-Demolition/Renovation Asbestos Inspection Report

6.0 COST ESTIMATES

Details of the estimated removal costs by homogeneous area can be found in **Table 6, Appendix A**, and the Executive Summary table.

Cost Estimate Limitations

These cost estimates are provided for the use of long-term budgeting and planning only and do not have a level of accuracy sufficient to be used as construction design cost estimates. The actual cost of asbestos removal is highly dependent on the size of the project or quantity of materials removed in a single abatement enclosure. The unit costs associated with small-scale emergency projects will typically be significantly greater than the costs associated with larger, planned projects. The cost estimates attempt to capture the costs associated with the removal of all asbestos-containing materials identified in this survey as part of one removal contract.

Material replacement and consultant abatement management costs are not included in these estimates and can add significantly to the project costs.

The estimated costs of removing lead-containing materials are not included here because there is no regulatory requirement to remove lead. Some lead-containing materials may not be disturbed during the renovation and may therefore remain in place. In addition, disposal costs of demolition wastes may vary significantly, depending on TCLP testing.

Pre-Demolition/Renovation Asbestos Inspection Report

Appendix A

Data Tables (Asbestos)

Table 1
Asbestos-containing Materials by Homogeneous Area

Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah

State of Utah-DFCM

Homogeneous Area Number	Material Description/Location	Friability	Asbestos Content	Amount
M001	12" Tan Floor Tile Rooms 173C, 100D, 168, 169, 163, 151B, 101D, 181B	No	5% Chrysotile >1% Chrysotile in Mastic	1,000 ft ²
M005	12" Beige Floor Tile Rooms 181, 181A, 181C	No	>1% Chrysotile >1% Chrysotile in black mastic	1,550 ft ²
M007	Sink Undercoating – White Room 181A	No	5% Chrysotile	1 Sink
M008	Sink Undercoating – Black Rooms 170, 174, 151, 152A	No	5% Chrysotile	4 Sinks
M010	Stair Tread – Tan Boiler Room Stairwell	No	>1% Chrysotile	200 ft ²
M011	9" Tan Floor Tile Stairwell landing to Boiler Room	No	5% Chrysotile	100 ft ²
M015	Transite in Laboratory Hood Room 181	No	Assumed	1 Hood

Table 2
Homogeneous Areas That Do Not Contain Asbestos

Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah

State of Utah-DFCM

Homogeneous Area Number	Material Description/Locaton	Amount
M002	12" Acoustical Ceiling tile	~2,700 ft ²
M003	2' x 4' Ceiling tile worm pattern	~20,000 ft ²
M004	2' x 4' Ceiling tile dot pattern	~5,000 ft ²
M006	Vinyl baseboard	~4,850 linear feet
M009	Foam flooring	1,450 ft ²
M012	12" Acoustical ceiling tile	1,850 ft ²
M013	Roof caulking	200 linear feet
M014	Laboratory counter top	8 Counter Tops
S001	Plaster skim coat	~8,900 ft ²
S002	Block filler – Blue	800 ft ²
S003	Sheetrock wall system	950 ft ²
S004	Block filler – White	~18,000 ft ²
T001	Thermal System Insulation (TSI) – 4" 90° Elbow Main Floor above ceiling tiles	Est. 350 Elbows
T002	TSI – 6" 90° Elbow Boiler Room	60 Elbows

Table 3
Bulk Sample Analytical Results by Sample Number
Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah

State of Utah-DFCM

Sample Number	Homogeneous Area Number	Material Sampled	Sample Location	Analytical Results
CPD-01	M001	Tan 12" Floor tile with black mastic	Room 173C	5% Chrysotile >1% Chrysotile in black mastic
CPD-02	M002	12" Acoustical Ceiling tile	Room 173B	ND
CPD-03A	S001	Plaster skim coat	Room 173B	ND
CPD-03B	S001	Plaster skim coat	Room 175	ND
CPD-03C	S001	Plaster skim coat	Room 186	ND
CPD-03D	S001	Plaster skim coat	Hallway	ND
CPD-03E	S001	Plaster skim coat	Hallway	ND
CPD-04	M003	2' x 4' Ceiling tile worm pattern	Room 173	ND
CPD-05	M004	2' x 4' Ceiling tile dot pattern	Room 173	ND
CPD-06	S002	Block filler – Blue	Room 173A	ND
CPD-07	M005	Beige 12" Floor tile with black mastic	Room 181C	>1% Chrysotile >1% Chrysotile in black mastic
CPD-08A	S003	Sheetrock wall system	Room 181C	ND
CPD-08B	S003	Sheetrock wall system	Room 170	ND
CPD-08C	S003	Sheetrock wall system	Room 155B	ND
CPD-09	M006	Vinyl baseboard	Hallway	ND
CPD-10	M007	Sink undercoating - White	Room 181A	5% Chrysotile

CPD-11A	S004	Block filler – White	Room 181	ND
CPD-11B	S004	Block filler – White	Room 174	ND
CPD-11C	S004	Block filler – White	Room 170	1.2% Chrysotile 1.0% Chrysotile by Point Count
CPD-12	M008	Sink undercoating - Black	Room 174	5% Chrysotile
CPD-13	M009	Foam flooring	Room 170	<1% Chrysotile <1% Chrysotile By Point Count
CPD-14A	T001	Thermal System Insulation (TSI) – 4” 90° Elbow	Room 170A	ND
CPD-14B	T001	TSI – 2” 90° Elbow	Room 170A	ND
CPD-14C	T001	TSI – 1” T Joint	Room 170A	ND
CPD-14D	T001	TSI – 4” T Joint	Room 194	ND
CPD-14E	T001	TSI – 4” T Joint	Hallway	ND
CPD-15A	T002	TSI – 6” 90° Elbow	Boiler Room	ND
CPD-15B	T002	TSI – 6” 90° Elbow	Boiler Room	ND
CPD-15C	T002	TSI – 6” 90° Elbow	Boiler Room	ND
CPD-15D	T002	TSI – 4” 90° Elbow	Boiler Room	ND
CPD-15E	T002	TSI – 2” 90° Elbow	Boiler Room	ND
CPD-16	M010	Stair Tread	Boiler Room	>1% Chrysotile
CPD-17	M011	Tan 9” Floor tile	Boiler Room	5% Chrysotile
CPD-18	M012	12” Acoustical ceiling tile	Boiler Room	ND
CPD-19	M013	Roof caulking	Roof penetrations	ND
CPD-20	M014	Laboratory counter top	Room 181	ND

Note: ND = No Asbestos Detected, NA = Not Analyzed, TR = <1% Asbestos, QC = Quality Control Split Sample

Table 4**Bulk Sample Analytical Results by Homogeneous Area Number**

**Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah**

State of Utah-DFCM

Sample Number	Homogeneous Area Number	Material Sampled	Sample Location	Analytical Results
CPD-01	M001	Tan 12" Floor tile with black mastic	Room 173C	5% Chrysotile >1% Chrysotile in black mastic
CPD-02	M002	12" Acoustical Ceiling tile	Room 173B	ND
CPD-04	M003	2' x 4' Ceiling tile worm pattern	Room 173	ND
CPD-05	M004	2' x 4' Ceiling tile dot pattern	Room 173	ND
CPD-07	M005	Beige 12" Floor tile with black mastic	Room 181C	>1% Chrysotile >1% Chrysotile in black mastic
CPD-09	M006	Vinyl baseboard	Hallway	ND
CPD-10	M007	Sink undercoating - White	Room 181A	5% Chrysotile
CPD-12	M008	Sink undercoating - Black	Room 174	5% Chrysotile
CPD-13	M009	Foam flooring	Room 170	<1% Chrysotile <1% Chrysotile By Point Count
CPD-16	M010	Stair Tread	Boiler Room	>1% Chrysotile
CPD-17	M011	Tan 9" Floor tile	Boiler Room	5% Chrysotile
CPD-18	M012	12" Acoustical ceiling tile	Boiler Room	ND
CPD-19	M013	Roof caulking	Roof penetrations	ND
CPD-20	M014	Laboratory counter top	Room 181	ND
CPD-03A	S001	Plaster skim coat	Room 173B	ND

CPD-03B	S001	Plaster skim coat	Room 175	ND
CPD-03C	S001	Plaster skim coat	Room 186	ND
CPD-03D	S001	Plaster skim coat	Hallway	ND
CPD-03E	S001	Plaster skim coat	Hallway	ND
CPD-06	S002	Block filler – Blue	Room 173A	ND
CPD-08A	S003	Sheetrock wall system	Room 181C	ND
CPD-08B	S003	Sheetrock wall system	Room 170	ND
CPD-08C	S003	Sheetrock wall system	Room 155B	ND
CPD-11A	S004	Block filler – White	Room 181	ND
CPD-11B	S004	Block filler – White	Room 174	ND
CPD-11C	S004	Block filler – White	Room 170	1.2% Chrysotile 1.0% Chrysotile by Point Count
CPD-14A	T001	Thermal System Insulation (TSI) – 4" 90° Elbow	Room 170A	ND
CPD-14B	T001	TSI – 2" 90° Elbow	Room 170A	ND
CPD-14C	T001	TSI – 1" T Joint	Room 170A	ND
CPD-14D	T001	TSI – 4" T Joint	Room 194	ND
CPD-14E	T001	TSI – 4" T Joint	Hallway	ND
CPD-15A	T002	TSI – 6" 90° Elbow	Boiler Room	ND
CPD-15B	T002	TSI – 6" 90° Elbow	Boiler Room	ND
CPD-15C	T002	TSI – 6" 90° Elbow	Boiler Room	ND
CPD-15D	T002	TSI – 4" 90° Elbow	Boiler Room	ND
CPD-15E	T002	TSI – 2" 90° Elbow	Boiler Room	ND

Note: ND= No Asbestos Detected, NA= Not Analyzed, TR= <1% Asbestos, PC= Point Count

Table 5

Damage and Hazard Assessment by Homogeneous Area

**Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah**

State of Utah-DFCM

Homogeneous Area Number	Material Type	Substrate	Assessment Category	Damage	Accessibility	Disturbance Potential
M001	12" Tan Floor Tile	Concrete	X	Undamaged	High	Low
M005	12" Beige Floor Tile	Concrete	X	Undamaged	High	Low
M007	Sink Undercoating – White	Metal	X	Undamaged	Low	Low
M008	Sink Undercoating – Black	Metal	X	Undamaged	Low	Low
M010	Stair Tread – Tan	Concrete	X	Undamaged	High	Low
M011	9" Tan Floor Tile	Concrete	X	Undamaged	High	Low
M015	Transite in Laboratory Hood	Metal	X	Undamaged	Medium	Low

Damage Categories

Each homogenous area of ACM was classified into one of the following seven categories, as specified in EPA's AHERA regulations (40 CFR §763.88):

- (1) Damaged or significantly damaged thermal system insulation ACM.
- (2) Damaged friable surfacing ACM.
- (3) Significantly damaged friable surfacing ACM.
- (4) Damaged or significantly damaged friable miscellaneous ACM.
- (5) ACBM with potential for damage.
- (6) ACBM with potential for significant damage.
- (7) Any remaining friable ACBM or friable suspected ACMB.
- (X) Not applicable (material is non-friable surfacing or miscellaneous material).

The damage categories are defined as follows:

- "Undamaged" means the material had no visible damage, or extremely minor damage or surface marring (i.e., a room full of floor tile with only two or three small corners chipped off of the tile).
- "Slight Damage" means the material had visible damage evenly distributed over less than 10% of its surface, or localized over less than 25% of its surface.
- "Significantly Damaged" means the material had visible damage that is evenly distributed over 10% or more of its surface or localized over 25% or more of its surface.

Hazard Assessment Categories

Each homogeneous area of ACM was evaluated for accessibility and the hazard the material presents to building occupants and the general public. The assessment assumes a fully occupied building.

- "Inaccessible" means the material was located in an area that people had no reason to enter and could not access without special measures. One example would be above a solid ceiling.
- "Rarely-Accessed" identifies a material that was in a location that could be accessed but wasn't unless there was a specific need. An example would be a pipe tunnel. Another example would be a high ceiling that is out of reach and not subject to any specific disturbances.
- "Periodic Access" identifies a material that was in a location that was accessible, was not occupied full time, but was accessed on a routine basis. An example would be a mechanical room or boiler room.
- "Continuous Access" identifies a material that was in a location that was occupied full time and was within reach of the occupants, or was frequently subjected to direct disturbance. Examples would be exposed floor tile or normal height ceiling tile.

Table 6
Estimated Abatement Costs by Homogeneous Area

Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah

State of Utah-DFCM

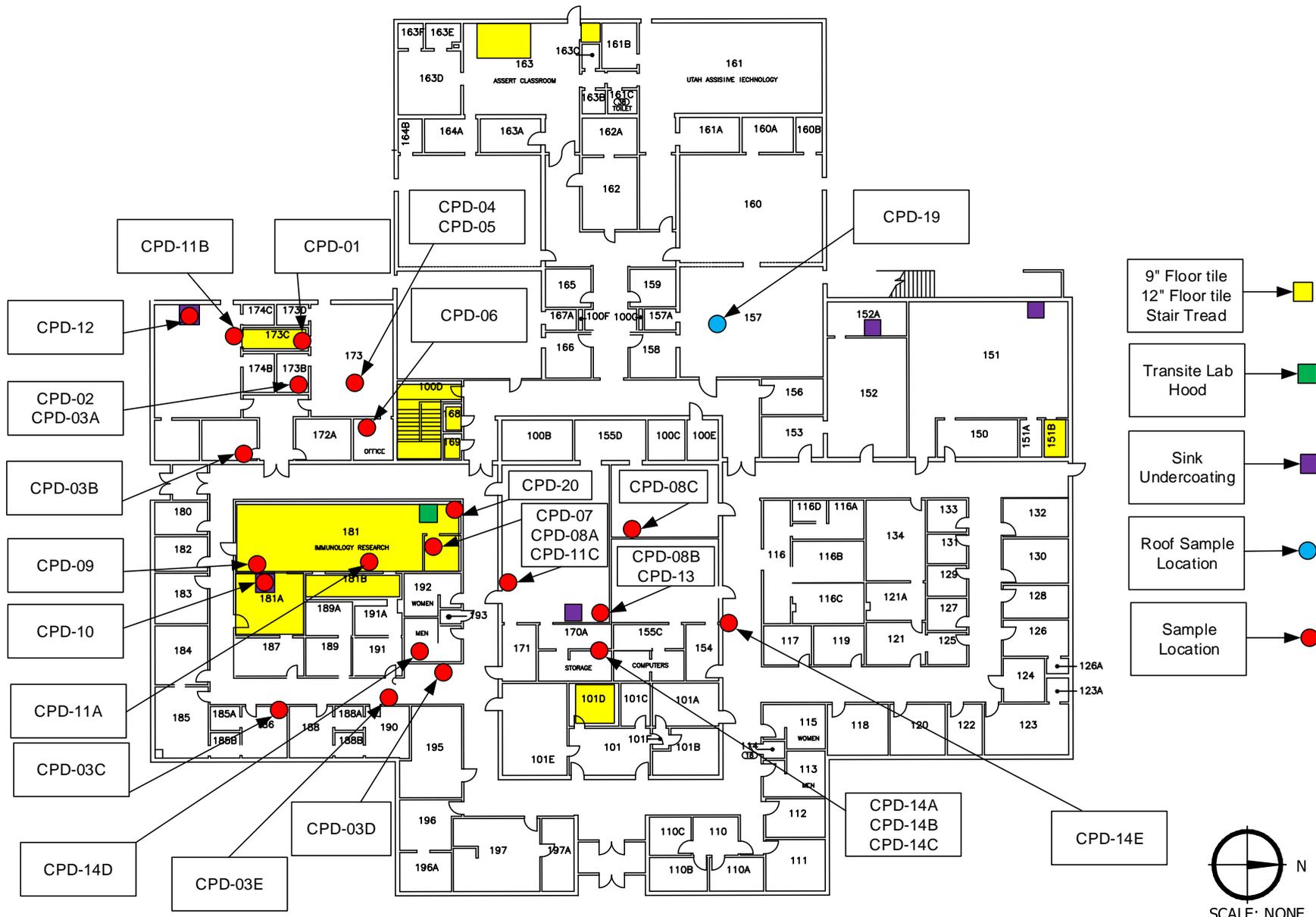
Homogeneous Area Number	Material Type	Amount	Unit Cost	Extended Cost
M001	12" Tan Floor Tile Rooms 173C, 100D, 168, 169, 163, 151B, 101D, 181B	1,000 ft ²	\$3.00/ft ²	\$3,000
M005	12" Beige Floor Tile Rooms 181, 181A, 181C	1,550 ft ²	\$3.00/ft ²	\$4,650
M007	Sink Undercoating – White Room 181A	1 Sink	\$200/each	\$200
M008	Sink Undercoating – Black Rooms 170, 174, 151, 152A	4 Sinks	\$200/each	\$800
M010	Stair Tread – Tan Boiler Room Stairwell	200 ft ²	\$3.00/ft ²	\$600
M011	9" Tan Floor Tile Stairwell landing to Boiler Room	100 ft ²	\$5.00/ft ²	\$500
M015	Transite in Laboratory Hood Room 181	1 Hood	N/A – Reuse for its intended purpose	\$0

Total Estimated Abatement Cost \$9,750.00

Note: Estimated abatement costs do not include replacement costs or costs for a consultant to manage the abatement

Appendix B

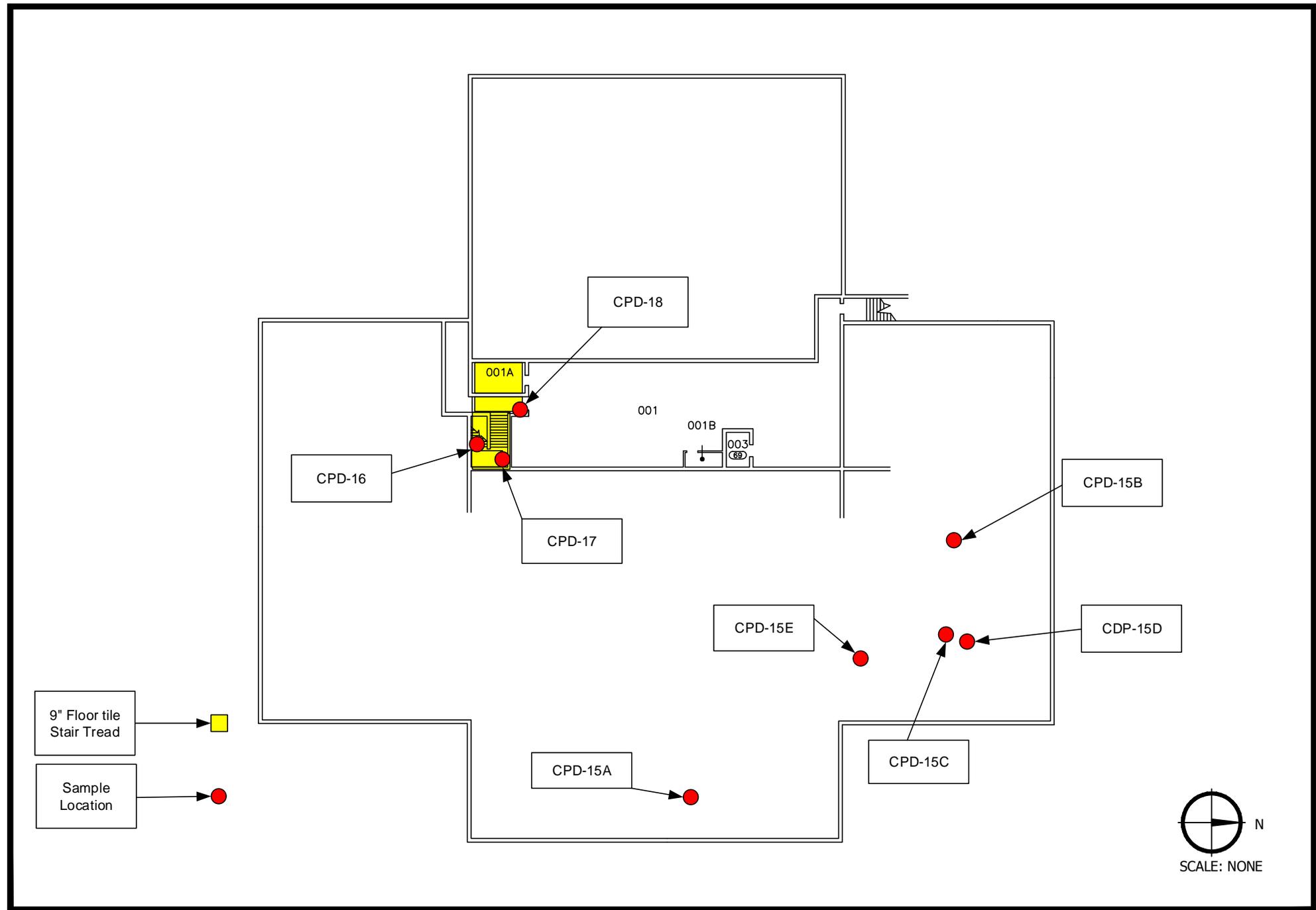
Building Floor Plans (Asbestos)



Center for Persons with Disabilities
First Floor

Year Constructed: 1972
Date: 05/28/2015
Net Sq. Ft.: 29,774
Gross Sq. Ft.: 33,560

Drawing No.
Figure 1



Appendix C

Laboratory Reports (Asbestos)

DIXON INFORMATION INC.

MICROSCOPY, ASBESTOS ANALYSIS & CONSULTING
A.I.H.A. ACCREDITED LABORATORY # 101579
NVLAP LAB CODE 101012-0

Revised 6/03/15-Changes In Italics

June 2, 2015

Mr. Claude Dahlk
Hill West Environmental
7963 Douglas Drive
Park City, UT 84098

Ref: Batch # 127426, Lab # HW806 - HW841
Received May 19, 2015
Test report, Page 1 of 7
DFCM
Center For Person With disabilities
Sampled by Claude Dahlk 5/18/2015

Dear Mr. Dahlk:

Samples HW806 through HW841 have been analyzed by visual estimation based on EPA-600/M4-82-020 December 1982 optical microscopy test method, with guidance from the EPA/600/R-93/116 July 1993 and OSHA ID 191 methods. Appendix "A" contains statements which an accredited laboratory must make to meet the requirements of accrediting agencies. It also contains additional information about the method of analysis. Appendix "A" must be included as an essential part of this test report. This analysis is accredited under NVLAP Lab Code: 101012-0. It does not contain data or calibrations for tests performed under the AIHA program under lab code 101579.

This report may be reproduced but all reproduction must be in full unless written approval is received from the laboratory for partial reproduction. The results of analysis are as follows:

Lab HW806, Field CPD-01 12" Floor tile tan with streaks w/black mastic
This is **5% chrysotile asbestos** in a tan plastic and limestone tile.

Note: The black tar mastic contains **greater than 1% chrysotile asbestos**.

The tile is 98% of the sample. The black tar mastic is 2% of the sample.

Lab HW807, Field CPD-02 12" Ceiling tile acoustical
This is 60% mineral wool in white resin binder with a white coating on one side. **Asbestos is none detected.**

The white coating is 2% of the sample.

Batch # 127426
Lab # HW806 - HW841
Page 2 of 7

Lab HW808, Field CPD-03A Plaster

This sample contains three types of material: The first type is multicolored paint layers; the second type is white plaster with sand; the third type is less than 1% organic fiber in off-white plaster with sand. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 9% of the sample. The third type is 90% of the sample.

Lab HW809, Field CPD-03B Plaster

This sample contains three types of material: The first type is multicolored paint layers; the second type is white plaster with sand; the third type is less than 1% organic fiber in off-white plaster with sand. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 9% of the sample. The third type is 90% of the sample.

Lab HW810, Field CPD-03C Plaster

This sample contains three types of material: The first type is multicolored paint layers; the second type is white plaster with sand; the third type is less than 1% organic fiber in off-white plaster with sand. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 9% of the sample. The third type is 90% of the sample.

Lab HW811, Field CPD-03D Plaster

This sample contains three types of material: The first type is multicolored paint layers; the second type is white plaster with sand; the third type is less than 1% organic fiber in off-white plaster with sand. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 9% of the sample. The third type is 90% of the sample.

Lab HW812, Field CPD-03E Plaster

This sample contains three types of material: The first type is multicolored paint layers; the second type is white plaster with sand; the third type is less than 1% organic fiber in off-white plaster with sand. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 9% of the sample. The third type is 90% of the sample.

Batch # 127426
Lab # HW806 - HW841
Page 3 of 7

Lab HW813, Field CPD-04 2' X 4' Ceiling tile worm pattern

This is a light gray sample with perlite, 20% plant fiber, and 35% mineral wool in resin binder with a white coating on one side. **Asbestos is none detected.**

The white coating is 1% of the sample.

Lab HW814, Field CPD-05 2' X 4' Ceiling tile dot pattern

This is a light gray sample with perlite, 20% plant fiber, and 35% mineral wool in resin binder with a white coating on one side. **Asbestos is none detected.**

The white coating is 1% of the sample.

Lab HW815, Field CPD-06 Block filler-blue

This sample contains two types of material: The first type is white and gray paint; the second type is off white sandy plasters. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 75% of the sample. The second type is 25% of the sample.

Lab HW816, Field CPD-07 12" Floor tile white w/black mastic

This is **greater than 1% chrysotile asbestos** in a white and tan plastic and limestone tile.

Note: The black tar mastic contains **greater than 1% chrysotile asbestos**.

The tile is 99% of the sample. The black tar mastic is 1% of the sample.

Note: The morphology of the fibers in the plastic and limestone tile are consistent with chrysotile asbestos. Fiber size is too small for identification by measurement of refractive indices. Transmission Electron Microscopy (TEM) is recommended for final confirmation that this is chrysotile asbestos.

Lab HW817, Field CPD-08A Sheetrock wall system

This sample contains four types of material: The first type is white paint; the second type is white gypsum plaster with fine mica; the third type is tan plant fiber paper; and the fourth type is white gypsum plaster with less than 1% fiberglass and 1% plant fiber. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 2% of the sample. The third type is 2% of the sample. The fourth type is 95% of the sample.

Batch # 127426

Lab # HW806 - HW841

Page 4 of 7

Lab HW818, Field CPD-08B Sheetrock wall system

This sample contains four types of material: The first type is white paint; the second type is white gypsum plaster; the third type is tan plant fiber paper; and the fourth type is white gypsum plaster with 1% fiberglass and 1% plant fiber. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is less than 1% of the sample. The third type is 2% of the sample. The fourth type is greater than 96% of the sample.

The analysis sensitivity is limited in the second material type due to thin layer and pigment.

Lab HW819, Field CPD-08C Sheetrock wall system

This sample contains four types of material: The first type is white paint; the second type is white limestone plaster with perlite; the third type is tan and white plant fiber paper; and the fourth type is white gypsum plaster with 1% fiberglass and 1% plant fiber. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 9% of the sample. The third type is 5% of the sample. The fourth type is 85% of the sample.

Lab HW820, Field CPD-09 Vinyl Baseboard

This sample contains two types of material: The first type is brown rubber and limestone; the second type is yellow resin mastic. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is greater than 99% of the sample. The second type is less than 1% of the sample.

Lab HW821, Field CPD-10 Sink undercoating white

This is **5% chrysotile asbestos** in white binder with limestone and mica.

Lab HW822, Field CPD-11A Block filler-white

This sample contains two types of material: The first type is white and off white paint; the second type is gray sandy plaster. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 65% of the sample. The second type is 35% of the sample.

The analysis sensitivity is limited in the second material type due to small sample size.

Lab HW823, Field CPD-11B Block filler-white

This sample contains two types of material: The first type is off white coating; the second type is gray sandy plaster. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 70% of the sample. The second type is 30% of the sample.

Batch # 127426

Lab # HW806 - HW841

Page 5 of 7

Lab HW824, Field CPD-11C Block filler-white

This sample contains three types of material: The first type is white paint; the second type is **1.2% chrysotile asbestos** in white limestone plaster with mica; the third type is gray sandy plaster. This sample is non-homogeneous.

The first type is 70% of the sample. The second type is 5% of the sample. The third type is 25% of the sample.

The analysis sensitivity is limited in the second material type due to small sample size and pigment interference.

Note: Insufficient second material type for point count analysis.

Lab HW825, Field CPD-12 Sink undercoating black

This is **5% chrysotile asbestos** in black tar binder with limestone.

Lab HW826, Field CPD-13 Foam flooring

By visual estimation this is **less than 1% chrysotile asbestos** in tan rubber.

By point count this is less than 1% asbestos. 1 asbestos point was counted. 407 non-asbestos particle points were counted. The slides were prepared from a 37.4% ash and dilute acid wash recovery. Using standard rounding rules this is **less than 1% asbestos**.

Lab HW827, Field CPD-14A TSI-4" elbow above bathroom

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW828, Field CPD-14B TSI-2" elbow above bathroom

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW829, Field CPD-14C TSI-2" T above bathroom

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW830, Field CPD-14D TSI-1" elbow south bathroom

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW831, Field CPD-14E TSI-4" elbow hallway

This is 15% mineral wool and 5% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW832, Field CPD-15A TSI-6" elbow boiler room

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Batch #127426
Lab #HW806-HW841
Page 6 of 7

Lab HW833, Field CPD-15B TSI-6" elbow boiler room

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW834, Field CPD-15C TSI-6" elbow boiler room

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW835, Field CPD-15D TSI-4" elbow boiler room

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW836, Field CPD-15E TSI-2" elbow boiler room

This is 15% mineral wool and 3% organic fiber in off white plaster. **Asbestos is none detected.**

Lab HW837, Field CPD-16 Stair Tread

This is **greater than 1% chrysotile asbestos** in tan rubber and plastic.

Lab HW838, Field CPD-17 9" Floor tile tan

This sample contains two types of material: The first type is **5% chrysotile asbestos** in tan rubber; the second type is yellow resin mastic. This sample is non-homogeneous.

The first type is 99% of the sample. The second type is 1% of the sample.

Lab HW839, Field CPD-18 Popcorn 12" Ceiling tile

This sample contains two types of material: The first type is 2% wollastonite in white coating; the second type is 70% mineral wool in off white binder. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 99% of the sample.

Lab HW840, Field CPD-20 Laboratory sink counter top

This sample contains two types of material: The first type is black coating; the second type is black sandy cement. This sample is non-homogeneous. **Asbestos is none detected.**

The first type is 1% of the sample. The second type is 99% of the sample.

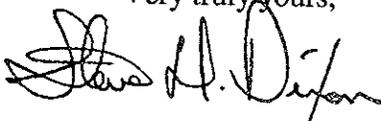
Lab HW841, Field CPD-19 Roof caulking

This is white rubber and limestone caulking. **Asbestos is none detected.**

Batch #127426
Lab #HW806-HW841
Page 7 of 7

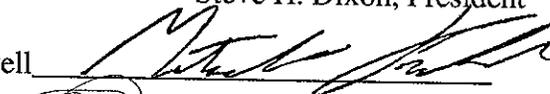
In order to be sure reagents and tools used for analysis are not contaminated with asbestos, blanks are tested. Asbestos was none detected in the blanks tested with this bulk sample set.

Very truly yours,



Steve H. Dixon, President

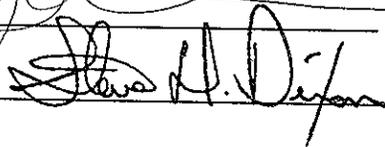
Analyst: Mitch Howell



Analyst: Paul Crane

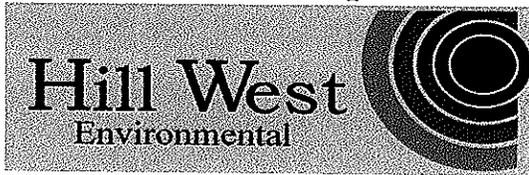


Analyst: Steve H. Dixon



Date Analyzed: May 27, 2015

[For lab use only]



ANALYTICAL REQUEST FORM

10/3

1. REGULAR Status

127426

24 Hour - RUSH Status Requested
RESULTS REQUIRED BY _____

DATE _____

2. Date 05/19/2015 Purchase Order No. _____

4. Quote No. _____

3. Company Name Hill West Environmental

Project Manager Claude Dahlk

Address 7963 Douglas Drive

5. Sample Collection

Park City, Utah 84098

Center for Persons with Disabilities

Person to Contact Claude Dahlk

Industrial Process DFCM

Telephone (801) 450-8060

Date of Collection 05/18/2015

Fax Telephone () _____

Time Collected _____

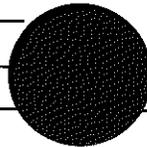
E-mail Address claudew@hillwestut.com

Date of Shipment _____

Billing Address (if different from above)

Chain of Custody No. _____

*As Per Claude
CPD - On all Samples
5/19/15*



7. REQUEST FOR ANALYSES

SB

*CPD
↓*

Client Sample Number	Area/Description	Analysis
CDP-01 802	12" Floor tile tan with streaks w/black mastic	PLM
CDP-02 807	12" Ceiling tile Acoustical	PLM
CPD-03A 808	Plaster	PLM
CPD-03B 809	Plaster	PLM
CPD-03C 810	Plaster	PLM
CPD-03D 811	Plaster	PLM
CDP-03E 812	Black cove base hallway west wing <i>Plaster</i>	PLM
CDP-04 813	2' x 4' Ceiling tile worm pattern	PLM
CDP-05 814	2' x 4' Ceiling tile Dot pattern	PLM
CDP-06 815	Block filler - Blue	PLM
CDP-07 816	12" Floor tile White w/black mastic	PLM
CDP-08A 817	Sheetrock wall system	PLM
CDP-08B 818	Sheetrock wall system	PLM
CPD-08C 819	Sheetrock wall system	PLM

Comments STOP / GO A, B, C *As per Claude change CDP-03E to Plaster*

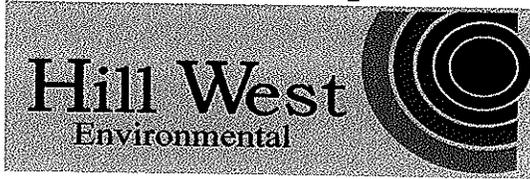
Possible Contamination and/or Chemical Hazards _____

6-3-15 SB

7. Chain of Custody

Relinquished by <i>[Signature]</i>	Date/Time <u>5/19/2015 0800</u>
Received by <i>[Signature]</i>	Date/Time <u>5/19/15 0810</u>
Relinquished by _____	Date/Time _____
Received by _____	Date/Time _____

[For lab use only]



ANALYTICAL REQUEST FORM

203

127422

1. REGULAR Status

24 Hour - RUSH Status Requested

RESULTS REQUIRED BY _____
DATE _____

2. Date 05/19/2015 Purchase Order No. _____

3. Company Name Hill West Environmental

Address 7963 Douglas Drive

Park City, Utah 84098

Person to Contact Claude Dahk

Telephone (801) 450-8060

Fax Telephone () _____

E-mail Address claudewest@hillwestut.com

Billing Address (if different from above)

4. Quote No. _____

Project Manager Claude Dahk

5. Sample Collection

Center for Persons with Disabilities

Industrial Process DFCM

Date of Collection 05/18/2015

Time Collected _____

Date of Shipment _____

Chain of Custody No. _____

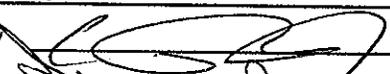
7. REQUEST FOR ANALYSES

Client Sample Number	Area/Description	Analysis
CDP-09 820	Vinyl Baseboard	PLM
CDP-10 821	Sink undercoating white	PLM
CPD-11A 822	Block filler - White	PLM
CDP-11B 823	Block filler - White	PLM
CPD-11C 824	Block filler - White	PLM
CPD-12 825	Sink undercoating black	PLM
CDP-13 826	Foam flooring	PLM
CDP-14A 827	TSI - 4" elbow above bathroom	PLM
CDP-14B 828	TSI - 2" elbow above bathroom	PLM
CDP-14C 829	TSI - 2" T above bathroom	PLM
CDP-14D 830	TSI - 1" elbow south bathroom	PLM
CDP-14E 831	TSI - 4" elbow hallway	PLM
CDP-15A 832	TSI - 6" elbow boiler room	PLM
CPD-15B 833	TSI - 6" elbow boiler room	PLM

Comments STOP/GO A, B, C

Possible Contamination and/or Chemical Hazards _____

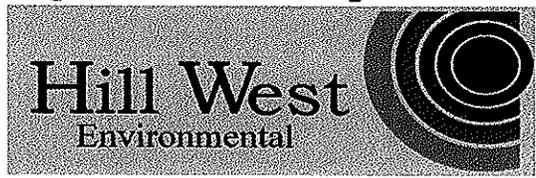
7. Chain of Custody

Relinquished by 	Date/Time <u>5/19/2015</u>	<u>0800</u>
Received by 	Date/Time <u>5-19-15</u>	<u>0800</u>
Relinquished by _____	Date/Time _____	
Received by _____	Date/Time _____	

127426
3083

[For lab use only]

ANALYTICAL REQUEST FORM



1. **REGULAR Status**

24 Hour - RUSH Status Requested
RESULTS REQUIRED BY _____
DATE _____

2. Date 05/19/2015 Purchase Order No. _____

3. Company Name Hill West Environmental Project Manager Claude Dahlk

Address 7963 Douglas Drive

5. Sample Collection

Center for Persons with Disabilities

Park City, Utah 84098

Industrial Process DFCM

Person to Contact Claude Dahlk

Date of Collection 05/18/2015

Telephone (801) 450-8060

Time Collected _____

Fax Telephone () _____

Date of Shipment _____

E-mail Address claud@hillwestut.com

Chain of Custody No. _____

Billing Address (if different from above) _____

7. REQUEST FOR ANALYSES

Client Sample Number	Area/Description	Analysis
CDP-15C 834	TSI - 6" elbow boiler room	PLM
CDP-15D 835	TSI - 4" elbow boiler room	PLM
CPD-15E 836	TSI - 2" elbow boiler room	PLM
CDP-16 837	Stair tread	PLM
CPD-17 838	9" Floor tile tan	PLM
CPD-18 839	Roof caulking- Popcorn 12' Ceiling tile	PLM
CDP-20 840	Laboratory sink counter top	PLM
CDP-19 841	Roof caulking	

Comments STOP P/GO A, B, C Changes as per phone call - Claude - 5/19/15 9:47am

Possible Contamination and/or Chemical Hazards _____

7. Chain of Custody

Relinquished by <u>[Signature]</u>	Date/Time <u>05/19/2015 0800</u>
Received by <u>[Signature]</u>	Date/Time <u>5-19-15 0810</u>
Relinquished by _____	Date/Time _____
Received by _____	Date/Time _____

Appendix "A"

"This report relates only to the items tested. This report must not be used to claim product endorsement by NVLAP or AIHA"

NVLAP and AIHA requires laboratories to state the condition of samples received for testing: These samples are in acceptable condition for analysis unless there is a statement in the report of analysis that a test item has some characteristics or condition that precludes analysis or requires a modification of standard analytical methodology. If a test item is not acceptable, the reasons for non-acceptability will be given under the laboratory number for that particular test item. The reported percentages of each material type are based on the sample received by the laboratory and may not be representative of the parent material. Orientation of top and bottom may not be specified due to uncertainty of orientation.

Methods of Analysis and Limit of Detection

In air count analysis, the results may be biased when interferences are noted.

The accuracy of asbestos analysis in bulk samples increases with increasing concentration of asbestos. Pigments, binders, small sample size and multiple layers may affect the analysis sensitivity.

There are two methods for analysis of asbestos in a bulk test sample. Visual estimation is the most sensitive method. If an analyst makes a patient search, 0.1% or less asbestos can be detected in a bulk sample.

The second method of analysis is a statistical approach called point counting. EPA will not accept visual estimations if a laboratory detects a trace of asbestos in a sample i.e. anything less than 1% asbestos. Government agencies regulate asbestos containing materials (ACM) whenever the ACM is more than 1%. OSHA requirements apply on samples containing any amount of asbestos.

Due to the higher charge for a point count analysis, Dixon Information Inc. does not perform a point count unless authorized to do so by the customer. If a sample is point counted, when possible, various chemical and/or physical means may be used to concentrate the asbestos in the sample. This is permitted by the EPA method and it increases the accuracy of the analysis.

DIXON INFORMATION INC.

MICROSCOPY, ASBESTOS ANALYSIS & CONSULTING
A.I.H.A. ACCREDITED LABORATORY # 101579
NVLAP LAB CODE 101012-0

June 5, 2015

Mr. Claude Dahlk
Hill West Environmental
7963 Douglas Drive
Park City, UT 84098

Ref: Batch # 127739, Lab # HW848
Received June 3, 2015
Test report, Page 1 of 2
Center For People With Disabilities
Sampled by Claude Dahlk

Dear Mr. Dahlk:

Sample HW848 has been analyzed by visual estimation based on EPA-600/M4-82-020 December 1982 optical microscopy test method, with guidance from the EPA/600/R-93/116 July 1993 and OSHA ID 191 methods. Appendix "A" contains statements which an accredited laboratory must make to meet the requirements of accrediting agencies. It also contains additional information about the method of analysis. Appendix "A" must be included as an essential part of this test report. This analysis is accredited under NVLAP Lab Code: 101012-0. It does not contain data or calibrations for tests performed under the AIHA program under lab code 101579.

This report may be reproduced but all reproduction must be in full unless written approval is received from the laboratory for partial reproduction. The results of analysis are as follows:

Lab HW848, Field CPD-11C Block Filler-Point Count

This sample contains three types of material: The first type is white paint; the second type is **1.2% chrysotile asbestos** in white binder with mica; the third type is gray sandy debris. This sample is non-homogeneous.

The first type is 2% of the sample. The second type is 2% of the sample. The third type is 96% of the sample.

By point count this is 1.1% asbestos. 10 asbestos points were counted. 409 non-asbestos particle points were counted. The slides were prepared from a 45.7% ash and dilute acid wash recovery of the 2nd material type. Using standard rounding rules this is **1% asbestos**.

Batch # 127739

Lab # HW848 - HW848

Page 2 of 2

In order to be sure reagents and tools used for analysis are not contaminated with asbestos, blanks are tested. Asbestos was none detected in the blanks tested with this bulk sample set.

Very truly yours,



Steve H. Dixon, President

Analyst: Steve H. Dixon



Date Analyzed: June 4, 2015

Dixon Information Inc.
78 West 2400 South
South Salt Lake, Utah 84115
Phone: (801) 486-0800 Fax: (801) 486-0149

RUSH

BULK ANALYTICAL REQUEST FORM

Turnaround Time - Check One

Same Day Rush (12 Hours \$35.00 per sample)

24 Hour Rush (24 Hours \$25.00 per sample)

Non-rush (5 Working Days \$17.00 per sample)

Batch Number: _____

127739

Name of location sample was taken at Center for People with Disabilities

Street address sample was taken at _____

Sampled by: [Signature] Sampled Date _____

Project # Work Order # Purchase Order # _____ Job # _____

Report to be sent to: Claude Dahlk
Company: Hill West Environment
Address: 7963 Kauglus Dr
City: Park City State: UT
Zip Code: 84098
Telephone #: 801 952 8060
Fax #: _____
E-mail: Claude@hillwestut.com

Billing to be sent to: _____
Company: _____
Address: _____
City: _____ State: _____
Zip Code: _____
Telephone #: _____
Addition Instructions: _____

Field #	Description of Sample	Samples Collected		Lab #
		Date	Time	
<u>CPD-11C</u>	<u>Black Filler - Point Count</u>	<u>6/3/15</u>		<u>948</u>

Chain of Custody

Submission of asbestos samples for analysis and/or signing a chain of custody is the equivalent of submission of a purchase order and constitutes an agreement to pay for services provided at Dixon Information Incorporated standard schedule of fees for services.

Submitted by: [Signature]
Received by Lab: [Signature]
Received by Analyst: [Signature]
Returned by Lab: _____

Date: 6/3/15 Time: 1605
Date: 6-3-15 Time: 1008
Date: 6-4-15 Time: 1100
Date: _____ Time: _____

Appendix "A"

"This report relates only to the items tested. This report must not be used to claim product endorsement by NVLAP or AIHA"

NVLAP and AIHA requires laboratories to state the condition of samples received for testing: These samples are in acceptable condition for analysis unless there is a statement in the report of analysis that a test item has some characteristics or condition that precludes analysis or requires a modification of standard analytical methodology. If a test item is not acceptable, the reasons for non-acceptability will be given under the laboratory number for that particular test item. The reported percentages of each material type are based on the sample received by the laboratory and may not be representative of the parent material. Orientation of top and bottom may not be specified due to uncertainty of orientation.

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Due to the higher charge for a point count analysis, Dixon Information Inc. does not perform a point count unless authorized to do so by the customer. If a sample is point counted, when possible, various chemical and/or physical means may be used to concentrate the asbestos in the sample. This is permitted by the EPA method and it increases the accuracy of the analysis.

Appendix D

Photographs (Asbestos)



Utah State University

Center for Persons with Disabilities

6800 Old Main Hill

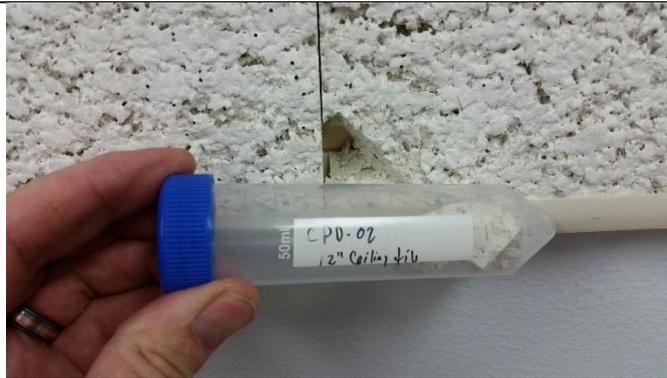
Logan, Utah 84322



CPD-01 Tan 12" Floor tile
with black mastic



CPD-03B Plaster



CPD-02 12" Acoustical wall and ceiling tile



CPD-03C Plaster



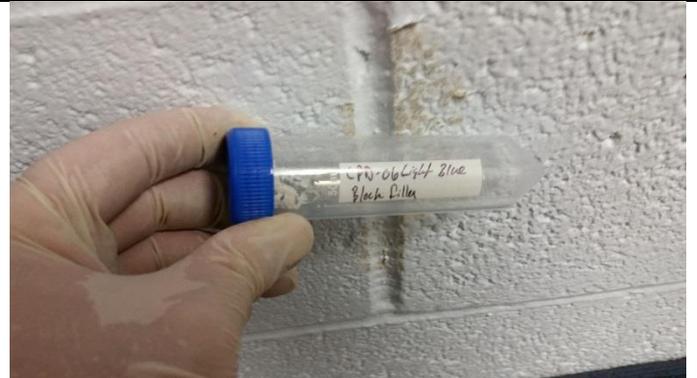
CPD-03A Plaster



CPD-03D Plaster



CPD-03E Plaster



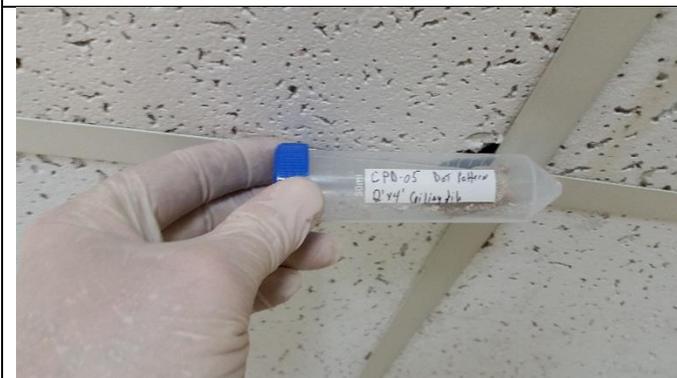
CPD-06 Block filler



CPD-04 2' x 4' Ceiling tile worm pattern



CPD-07 Beige 12" Floor tile with black mastic



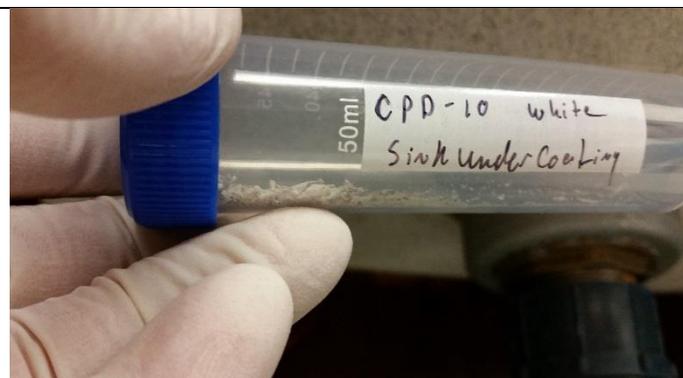
CPD-05 2' x 4' Ceiling tile dot pattern



CPD-08A Sheetrock wall system



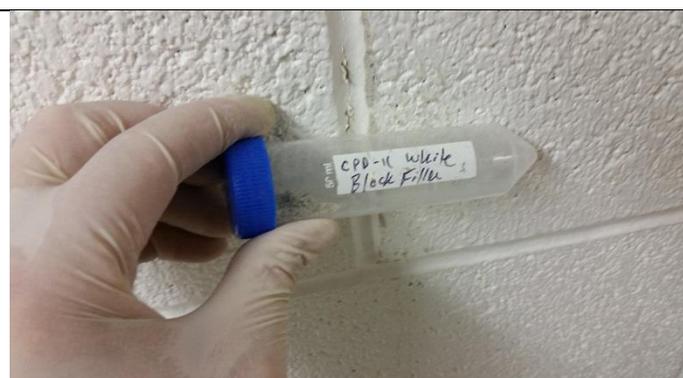
CPD-08B Sheetrock wall system



CPD-10 Sink undercoating White



CPD-08C Sheetrock wall system



CPD-11A Block filler



CPD-09 Vinyl Baseboard



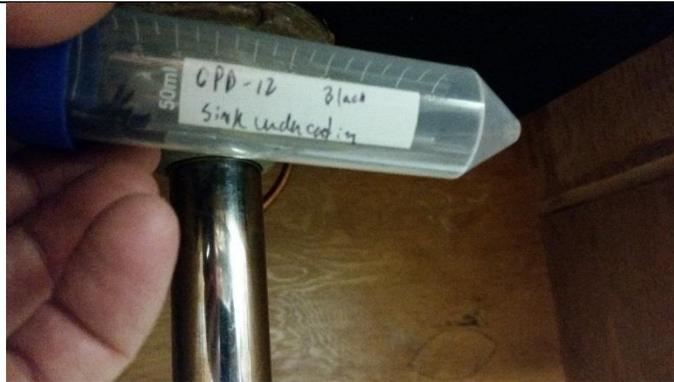
CPD-11B Block filler



CPD-11C Block filler



CPD-14A TSI - 4" 90° Elbow



CPD-12 Sink undercoating - Black



CPD-14B TSI - 2" 90° Elbow



CPD-13 Foam flooring



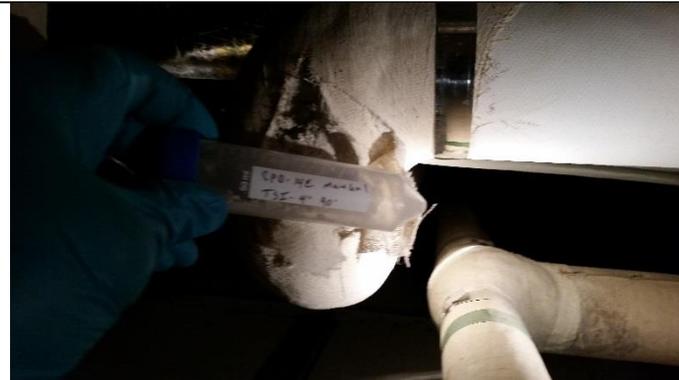
CPD-14C TSI - 2" T Joint



CPD-14D TSI - 1" 90° Elbow



CPD-15B TSI - 6" 90° Elbow



CPD-14E TSI - 4" 90° Elbow



CPD-15C TSI - 6" 90° Elbow



CPD-15A TSI - 6" 90° Elbow



CPD-15D TSI - 4" 90° Elbow



CPD-15E TSI - 2" 90° Elbow



CPD-18 12" Acoustical ceiling tile



CPD-16 Stair Tread



CPD-19 Roof caulking



CPD-17 Tan 9" Floor tile



CPD-20 Laboratory counter top

Appendix E
Lead Inspection Report



LEAD PAINT INSPECTION

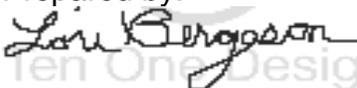
**Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah 84322**

June 8, 2015

Submitted to:

Mr. Robert J. Anderson
Improvements Project Manager
State of Utah - DFCM
4110 State Office Building
Salt Lake City, Utah 84114

Prepared by:


Ten One Design

Lori Bergeson
State of Utah Inspector PB-1056

Reviewed by:



Claude Dahlk, CHMM, CIEC
Vice President, Hill West Environmental

Table of Contents

INTRODUCTION	1
1.0 OBJECTIVE	1
2.0 LEAD DEFINITIONS	1
3.0 SURVEY PROCEDURES	2
3.1 Paint Sampling Methodologies	2
3.2 XRF Calibration	2
3.3 Field Documentation	2
4.0 FINDINGS	3
4.1 Building Components with XRF Readings ≥ 0.4 mg/cm ²	3
4.2 Building Components with XRF Readings ≤ 0.4 mg/cm ²	4
4.3 Paint Chip Sampling	4
5.0 CONCLUSIONS AND DISCUSSION	5
5.1 OSHA Construction Requirements	5
5.2 EPA Requirements	6

Appendices

Lead Appendix A: Measured Lead Concentrations in Building Components

Lead Appendix B: Photographs

INTRODUCTION

On May 20, 2015, Lead Inspectors, LLC conducted a lead inspection of the Utah State University – Center for Persons with Disabilities (CPD) located at 6800 Old Main Hill, Logan, Utah. Mr. Robert J. Anderson, State of Utah Division of Facilities Management and Construction (DFCM) Improvements Project Manager, requested this inspection.

1.0 OBJECTIVE

The objective of this inspection was to identify lead-containing paint that could be disturbed during renovation or demolition projects.

2.0 LEAD DEFINITIONS

The U.S Department of Housing and Urban Development (HUD) defines “lead-based paint” as any coating that has a lead concentration of 1.0 milligram of lead per square centimeter (1.0 mg/cm²) or greater, or if the lead concentration is greater than 0.5% by weight. The Consumer Product Safety Commission (CPSC) currently considers paint to be lead-containing if the concentration of lead exceeds 600 ppm (0.06% by weight). Both the CPSC and HUD definitions of lead-containing paint are aimed at protecting the general population from exposure to lead in the residential setting.

By contrast, the mission of the Occupational Safety and Health Administration (OSHA) with respect to lead-containing paint is to protect workers during construction activities that could result in hazardous exposures. OSHA states that construction work (including renovation, maintenance, and demolition) carried-out on structures coated with paint have lead concentrations lower than the HUD or CPSC can still result in airborne lead concentrations in excess of regulatory limits. For this reason, OSHA has not defined a lower threshold level of lead content for lead-containing paint, but states that paint having any measurable level of lead may – depending on the activity – poses a significant potential for overexposure.

Therefore, construction activities that create lead-containing dust or fume must be performed in accordance with OSHA’s Lead in Construction Standard, 29 CFR 1926.62. This standard requires, among other things, medical surveillance, lead training, initial exposure assessments, respiratory protection, and worker hygiene facilities.

3.0 SURVEY PROCEDURES

3.1 Paint Sampling Methodologies

Direct measurements of lead in paint were made using a Niton XLp 300A X-ray Fluorescence (XRF) Spectrum Analyzer. The Niton XRF non-destructively measures lead concentrations of painted surfaces, regardless of the number of layers present. According to the manufacturer, the detection limit (lower limit of reliable measurement) for this instrument is 0.1 milligrams per square centimeter (mg/cm^2) $\pm 0.3 \text{ mg}/\text{cm}^2$ with the instrument set on the “quick” measuring mode. The quick mode provides 95% confidence that the lead concentration in the paint is above or below the set point of the instrument which, for this survey is $1.0 \text{ mg}/\text{cm}^2$. For this survey, measurements below $0.4 \text{ mg}/\text{cm}^2$ were not reported as lead containing.

The Niton XRF sometimes reports negative values. According to the manufacturer, negative values should be expected and interpreted as zero lead content due to the statistical variability of XRF measurement technology. Both HUD and the EPA recognize the statistical variability of XRF technology and the possibility of obtaining negative values where the lead content is near zero.

3.2 XRF Calibration

Before beginning the testing and after the testing was completed, the internal calibration of the XFR was checked by taking three consecutive measurements on a National Institute for Standards and Technology (NIST) standard with a known concentration of lead. Three more readings were taken on a lead-free white NIST standard. These calibration checks are performed to detect changes in the instrument’s performance over time. The calibration values obtained were compared to the calibration check tolerance values specified for the instrument to ensure that it was operating within the stated tolerance limits.

3.3 Field Documentation

Field data forms were used to manually record information regarding individual XRF measurements. This information includes the structure, the building component, component substrate (e.g., plaster, wood, metal, concrete), and paint condition. The field data forms are then used by the inspector to identify and describe the materials sampled once the instrument’s electronic memory has been downloaded to a personal computer.

4.0 FINDINGS

The XRF measurements are included in **Table 1** in **Appendix A**. Measurements are reported in milligrams of lead per square centimeter (mg/cm²). All the coatings tested during this inspection were in good to fair condition.

4.1 Building Components with XRF Readings ≥ 0.4 mg/cm²

- All Glazed wall tile in bathrooms/converted offices/storage are positive for lead (3.6 mg/cm² – 11.5 mg/cm²). The following rooms have tile:

100F	155C	161C	191A
100G	157A	164B	192
113	167A	173D	194
115	160B	174D	
123A	185B	188B	

Estimated Quantity: 3,600 ft²

- All Plaster Walls (0.6 mg/cm² – 3.9 mg/cm²) within the following rooms/areas:

124	164A	South Hallway
150	172A	Southeast Hallway
165	173A	
161A	174B	
163A	175	

Estimated Quantity: 8,900 ft²

- Office Wall Dividers (0.6 mg/cm² – 2.1 mg/cm²) within the following rooms:

157	164
-----	-----

Estimated Quantity: 800 ft²

- Metal Ladders located in basement (20.6 mg/cm²)
- Exterior Fire Hydrant (1.1 mg/cm²)

4.2 Building Components with XRF Readings \leq 0.4 mg/cm²

- All interior surfaces including painted brick walls, drywall, utility boxes, doors, door jambs, pipes and concrete walls.
- Ceramic floor tile in restrooms
- Exterior metal windows
- Exterior metal doors/door jambs
- Exterior utility boxes

Please refer to Table 1 for a complete list of items

4.3 Paint Chip Sampling

No paint chip samples were collected from the building. Most of the painted surfaces tested on windows and doors were manufactured paints or coatings. The paints or coatings are in good condition.

5.0 CONCLUSIONS AND DISCUSSION

Lead-based paint coating was present on all interior sheetrock walls, office dividers and all restroom ceramic wall tiles. Please refer to Table 1 in Appendix A for a complete list of lead-based paint coated items.

If workers perform manual demolition, sanding, grinding, welding, or cutting, or any other activities that may create lead-containing dust or fume, they must follow the requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62. This standard requires, among other things, lead training, an initial exposure assessment, and hygiene facilities for all potentially exposed workers. Please refer to Appendix B for the Site Diagram and lead-based paint locations.

5.1 OSHA Construction Requirements

The Lead in Construction Standard specifies that employers are responsible for ensuring that their employees are not exposed to airborne lead concentrations exceeding the OSHA permissible exposure limit (PEL) of fifty micrograms per cubic meter of air ($50\mu\text{g}/\text{m}^3$) averaged over an 8-hour period, and to take appropriate precautions when exposures reach and Action Level of $30\text{ g}/\text{m}^3$ averaged over an 8-hour period. The standard was written to require initial exposure monitoring or the use of historical or objective data to ensure that employee exposures do not exceed the Action Level. Depending on the specific construction activities being performed (e.g., manual demolition, sanding, grinding, welding, cutting), employers must assume their employees will be overexposed to lead and, thus must provide personal protective equipment – including respiratory protection – until an exposure assessment proves otherwise.¹

1 See 29 CFR 1926(d) (2) Protection of employees during assessment of exposure.

5.2 EPA Requirements

The presence of lead in demolition debris from non-residential buildings has the potential to impose limitations on where and how the debris may be disposed. The Resource Conservation and Recovery Act (RCRA) requires each waste generator to determine if his wastes are hazardous. This can be determined either through generator knowledge or by testing. Toxicity Characteristic Leaching Procedure (TCLP) testing is the preferred method for determining if wastes are hazardous. The demolition wastes from this project should undergo TCLP testing prior to disposal to determine if they are hazardous.

Appendix A

Table 1 – Measured Lead Concentrations in Building Components

Inspector: L. Bergeson
 Date Inspected: 05-20-2015
 PB-1916

Limited-Lead Based Paint Readings

Hill West Environmental
 Utah State University
 CPD Building
 Logan, UT

Index	Time	Component	Substrate	Side	Condition	Color	Floor	Room	Results	PbC Error
1	5/20/2015 15:00									0
2	5/20/2015 15:01	CALIBRATION							Positive	0.1
3	5/20/2015 15:01	CALIBRATION							Positive	0.1
4	5/20/2015 15:02	CALIBRATION							Positive	0.1
5	5/20/2015 15:02	CALIBRATION							Positive	0.1
6	5/20/2015 15:15	CALIBRATION								0
7	5/20/2015 15:20	WALL	BLOCK	A	INTACT	WHITE	FIRST	110A	Negative	0.03
8	5/20/2015 15:20	JAM	METAL	A	INTACT	BROWN	FIRST	110A	Negative	0.08
9	5/20/2015 15:21	WINDOW	METAL	A	INTACT	BROWN	FIRST	110B	Negative	0.02
10	5/20/2015 15:22	WALL	BLOCK	A	INTACT	BROWN	FIRST	110B	Negative	0.03
11	5/20/2015 15:23	WALL	BLOCK	A	INTACT	WHITE	FIRST	110C	Null	0.04
12	5/20/2015 15:23	WALL	BLOCK	A	INTACT	WHITE	FIRST	110C	Negative	0.04
13	5/20/2015 15:24	JAM	METAL	A	INTACT	BROWN	FIRST	110	Negative	0.11
14	5/20/2015 15:27	WALL	BLOCK	A	INTACT	WHITE	FIRST	197	Negative	0.02
15	5/20/2015 15:28	WALL	BLOCK	A	INTACT	BLUE	FIRST	197A	Negative	0.02
16	5/20/2015 15:31	WALL	BLOCK	A	INTACT	WHITE	FIRST	197B	Null	0.02
17	5/20/2015 15:31	WALL	BLOCK	A	INTACT	WHITE	FIRST	197B	Negative	0.02
18	5/20/2015 15:34	WALL	BLOCK	A	INTACT	ORANGE	FIRST	196	Negative	0.02
19	5/20/2015 15:35	WALL	BLOCK	B	INTACT	WHITE	FIRST	195	Negative	0.04
20	5/20/2015 15:37	WALL	DRYWALL	B	INTACT	WHITE	FIRST	190	Negative	0.02
21	5/20/2015 15:38	WALL	BLOCK	B	INTACT	WHITE	FIRST	188A	Null	0.02
22	5/20/2015 15:39	FLOOR	TILE	B	INTACT	YELLOW	FIRST	188B	Negative	0.02
23	5/20/2015 15:39	FLOOR	TILE	B	INTACT	YELLOW	FIRST	188B	Negative	0.03
24	5/20/2015 15:39	FLOOR	TILE	B	INTACT	WHITE	FIRST	188B	Negative	0.03
25	5/20/2015 15:40	WALL	TILE	B	INTACT	YELLOW	FIRST	188B	Positive	8.7
26	5/20/2015 15:44	WALL	DRYWALL	B	INTACT	WHITE	FIRST	188	Null	0.02

Inspector: L. Bergeson
 Date Inspected: 05-20-2015
 PB-1916

Limited-Lead Based Paint Readings

Hill West Environmental
 Utah State University
 CPD Building
 Logan, UT

27	5/20/2015 15:46	WALL	DRYWALL	B	INTACT	WHITE	FIRST	186	Negative	0.02
28	5/20/2015 15:46	JAM	METAL	B	INTACT	BROWN	FIRST	186	Negative	0.07
29	5/20/2015 15:48	JAM	METAL	B	INTACT	BROWN	FIRST	185	Negative	0.02
30	5/20/2015 15:50	JAM	METAL	B	INTACT	BROWN	FIRST	185A	Negative	0.02
31	5/20/2015 15:53	WALL	TILE	B	INTACT	YELLOW	FIRST	185B	Positive	6.9
32	5/20/2015 15:53	FLOOR	TILE	B	INTACT	YELLOW	FIRST	185B	Negative	0.02
33	5/20/2015 15:56	WALL	BLOCK	B	INTACT	WHITE	FIRST	184	Negative	0.02
34	5/20/2015 15:58	WALL	BLOCK	B	INTACT	WHITE	FIRST	183	Null	0.02
35	5/20/2015 15:59	WALL	DRYWALL	B	INTACT	WHITE	FIRST	HALL	Null	0.05
36	5/20/2015 16:00	UTILITY	METAL	B	INTACT	GREY	FIRST	HALL	Negative	0.03
37	5/20/2015 16:02	WALL	BLOCK	B	INTACT	WHITE	FIRST	HALL	Negative	0.02
38	5/20/2015 16:03	WALL	DRYWALL	B	INTACT	WHITE	FIRST	175	Null	0.02
39	5/20/2015 16:03	WALL	PLASTER	B	INTACT	WHITE	FIRST	175	Positive	0.7
40	5/20/2015 16:03	WALL	PLASTER	B	INTACT	WHITE	FIRST	175	Positive	3
41	5/20/2015 16:03	WALL	BOARD	B	INTACT	WHITE	FIRST	175	Positive	4.3
42	5/20/2015 16:04	WALL	BOARD	B	INTACT	WHITE	FIRST	175	Positive	4.2
43	5/20/2015 16:10	WALL	PLASTER	C	INTACT	WHITE	FIRST	175	Positive	3.6
44	5/20/2015 16:11	WALL	BLOCK	B	INTACT	WHITE	FIRST	172	Negative	0.02
45	5/20/2015 16:12	JAM	METAL	B	INTACT	BROWN	FIRST	172	Negative	0.04
46	5/20/2015 16:13	JAM	METAL	B	INTACT	BROWN	FIRST	174A	Negative	0.02
47	5/20/2015 16:13	VENT	METAL	B	INTACT	WHITE	FIRST	174A	Negative	0.02
48	5/20/2015 16:14	WALL	BLOCK	B	INTACT	WHITE	FIRST	174	Negative	0.02
49	5/20/2015 16:15	VENT	METAL	B	INTACT	WHITE	FIRST	174	Negative	0.02
50	5/20/2015 16:16	WALL	TILE	C	INTACT	YELLOW	FIRST	174C	Positive	7.2
51	5/20/2015 16:17	WALL	BLOCK	C	INTACT	WHITE	FIRST	174	Negative	0.02
52	5/20/2015 16:19	WALL	PLASTER	C	INTACT	WHITE	FIRST	174B	Positive	3.9
53	5/20/2015 16:19	WALL	BOARD	C	INTACT	WHITE	FIRST	174B	Positive	0.7

Inspector: L. Bergeson
 Date Inspected: 05-20-2015
 PB-1916

Limited-Lead Based Paint Readings

Hill West Environmental
 Utah State University
 CPD Building
 Logan, UT

54	5/20/2015 16:22	WALL	BLOCK	C	INTACT	WHITE	FIRST	173	Negative	0.02
55	5/20/2015 16:23	WALL	PLASTER	C	INTACT	WHITE	FIRST	173B	Positive	3.4
56	5/20/2015 16:23	WALL	PLASTER	C	INTACT	WHITE	FIRST	173B	Positive	0.7
57	5/20/2015 16:23	WALL	BOARD	C	INTACT	WHITE	FIRST	173A	Positive	3.7
58	5/20/2015 16:25	WALL	TILE	C	INTACT	YELLOW	FIRST	173D	Positive	4.3
59	5/20/2015 16:26	CEILING	TILE BOARD	C	INTACT	WHITE	FIRST	173D	Negative	0.02
60	5/20/2015 16:28	WALL	PLASTER	C	INTACT	WHITE	FIRST	172A	Positive	3.8
61	5/20/2015 16:28	WALL	BOARD	C	INTACT	WHITE	FIRST	172A	Positive	0.6
62	5/20/2015 16:34	WALL	TILE	C	INTACT	YELLOW	FIRST	167A	Positive	6.5
63	5/20/2015 16:34	JAM	METAL	C	INTACT	BROWN	FIRST	167A	Negative	0.09
64	5/20/2015 16:37	WALL	TILE	C	INTACT	YELLOW	FIRST	167A	Positive	11.4
65	5/20/2015 16:37	WALL	TILE	C	INTACT	YELLOW	FIRST	100F&G	Positive	11.5
66	5/20/2015 16:38	WALL	PLASTER	C	INTACT	WHITE	FIRST	165	Positive	2.8
67	5/20/2015 16:39	WALL	BOARD	C	INTACT	WHITE	FIRST	165	Positive	0.5
68	5/20/2015 16:39	WALL	DRYWALL	C	INTACT	WHITE	FIRST	165	Null	0.02
69	5/20/2015 16:39	WALL	PLASTER	C	INTACT	WHITE	FIRST	165	Positive	0.6
70	5/20/2015 16:41	WALL	DIVIDER	C	INTACT	WHITE	FIRST	164	Positive	2.1
71	5/20/2015 16:41	WALL	DIVIDER	C	INTACT	WHITE	FIRST	164	Positive	0.8
72	5/20/2015 16:43	WALL	BLOCK	C	INTACT	WHITE	FIRST	164	Null	0.02
73	5/20/2015 16:45	WALL	PLASTER	C	INTACT	WHITE	FIRST	164A	Positive	4
74	5/20/2015 16:47	WALL	PLASTER	C	INTACT	WHITE	FIRST	164A	Positive	2.1
75	5/20/2015 16:49	WALL	BLOCK	C	INTACT	WHITE	FIRST	163	Negative	0.02
76	5/20/2015 16:52	UTILITY	METAL	C	INTACT	GREY	FIRST	161	Negative	0.13
77	5/20/2015 16:54	WALL	DRYWALL	C	INTACT	BLUE	FIRST	162	Negative	0.02
78	5/20/2015 16:54	WALL	DRYWALL	C	INTACT	BLUE	FIRST	162	Negative	0.02
79	5/20/2015 16:59	WALL	DIVIDER	C	INTACT	WHITE	FIRST	157	Positive	0.6
80	5/20/2015 16:59	WALL	DIVIDER	C	INTACT	WHITE	FIRST	157	Positive	1

Inspector: L. Bergeson
 Date Inspected: 05-20-2015
 PB-1916

Limited-Lead Based Paint Readings

Hill West Environmental
 Utah State University
 CPD Building
 Logan, UT

81	5/20/2015 17:08	LADDER	METAL	C	INTACT	BEIGE	FIRST	100E	Positive	3.5
82	5/20/2015 17:13	WALL	BLOCK	C	INTACT	WHITE	FIRST	151	Negative	0.02
83	5/20/2015 17:15	WALL	PLASTER	C	INTACT	WHITE	FIRST	150	Positive	2.5
84	5/20/2015 17:15	WALL	PLASTER	C	INTACT	WHITE	FIRST	150	Positive	0.6
85	5/20/2015 17:29	STALL	METAL	C	INTACT	YELLOW	FIRST	150	Negative	0.16
86	5/20/2015 17:35	WALL	PLASTER	C	INTACT	WHITE	FIRST	189	Positive	4.1
87	5/20/2015 17:36	WALL	BLOCK	C	INTACT	WHITE	FIRST	181	Null	0.02
88	5/20/2015 17:36	WALL	TILE	C	INTACT	YELLOW	FIRST	194	Positive	3.6
89	5/20/2015 17:39	WALL	BLOCK	C	INTACT	WHITE	FIRST	181A	Null	0.02
90	5/20/2015 17:40	WALL	DRYWALL	C	INTACT	WHITE	FIRST	181A	Negative	0.02
91	5/20/2015 17:40	WALL	DRYWALL	C	INTACT	WHITE	FIRST	181A	Negative	0.02
92	5/20/2015 17:41	WALL	DRYWALL	C	INTACT	WHITE	FIRST	181A	Null	0.02
93	5/20/2015 17:44	WALL	DRYWALL	C	INTACT	WHITE	FIRST	155B	Negative	0.02
94	5/20/2015 17:49	WALL	DIVIDER	C	INTACT	BLUE	FIRST	155B	Negative	0.02
95	5/20/2015 17:50	WALL	DIVIDER	C	INTACT	BLUE	FIRST	155B	Null	0.02
96	5/20/2015 17:52	WALL	DRYWALL	C	INTACT	WHITE	FIRST	117	Null	0.14
97	5/20/2015 17:52	WALL	DRYWALL	C	INTACT	WHITE	FIRST	117	Negative	0.02
98	5/20/2015 17:58	HAND RAIL	METAL	C	INTACT	BROWN	FIRST	117	Negative	0.31
99	5/20/2015 17:58	HAND RAIL	METAL	C	INTACT	BROWN	FIRST	117	Negative	0.21
100	5/20/2015 18:01	MOTOR	METAL	C	INTACT	RED	BASEMENT	MECH	Negative	0.02
101	5/20/2015 18:02	UTILITY	METAL	C	INTACT	GREY	BASEMENT	MECH	Negative	0.04
102	5/20/2015 18:02	UTILITY	METAL	C	INTACT	GREY	BASEMENT	MECH	Negative	0.02
103	5/20/2015 18:02	UTILITY	METAL	C	INTACT	GREY	BASEMENT	MECH	Negative	0.03
104	5/20/2015 18:03	UTILITY	METAL	C	INTACT	GREY	BASEMENT	MECH	Negative	0.02
105	5/20/2015 18:03	UTILITY	METAL	C	INTACT	GREY	BASEMENT	MECH	Negative	0.02
106	5/20/2015 18:03	UTILITY	METAL	C	INTACT	GREY	BASEMENT	MECH	Negative	0.11
107	5/20/2015 18:04	LADDER	METAL	C	INTACT	BROWN	BASEMENT	MECH	Positive	20.6

Inspector: L. Bergeson
 Date Inspected: 05-20-2015
 PB-1916

Limited-Lead Based Paint Readings

Hill West Environmental
 Utah State University
 CPD Building
 Logan, UT

108	5/20/2015 18:11	WALL	WOOD	C	INTACT	BLUE	BASEMENT	MECH	Null	0.02
109	5/20/2015 18:11	WALL	WOOD	C	INTACT	WHITE	BASEMENT	MECH	Null	0.03
110	5/20/2015 18:25	UTILITY	METAL	A	INTACT	BROWN	FIRST	OUTSIDE	Negative	0.1
111	5/20/2015 18:25	UTILITY	METAL	A	INTACT	BROWN	FIRST	OUTSIDE	Negative	0.1
112	5/20/2015 18:27	WINDOW	METAL	B	INTACT	GREY	FIRST	OUTSIDE	Negative	0.02
113	5/20/2015 18:27	WINDOW	METAL	B	INTACT	GREY	FIRST	OUTSIDE	Negative	0.03
114	5/20/2015 18:28	DOOR	METAL	B	INTACT	BROWN	FIRST	OUTSIDE	Negative	0.1
115	5/20/2015 18:28	DOOR	METAL	B	INTACT	BROWN	FIRST	OUTSIDE	Negative	0.05
116	5/20/2015 18:29	DOOR	METAL	B	INTACT	BROWN	FIRST	OUTSIDE	Negative	0.1
117	5/20/2015 18:33	DOOR	METAL	D	INTACT	BROWN	FIRST	OUTSIDE	Negative	0.02
118	5/20/2015 18:35	PARKING	CONCRETE	D	INTACT	YELLOW	FIRST	OUTSIDE	Negative	0.02
119	5/20/2015 18:35	PARKING	CONCRETE	D	INTACT	YELLOW	FIRST	OUTSIDE	Negative	0.02
120	5/20/2015 18:36	PARKING	CONCRETE	D	INTACT	BLUE	FIRST	OUTSIDE	Negative	0.02
121	5/20/2015 18:36	PARKING	CONCRETE	D	INTACT	WHITE	FIRST	OUTSIDE	Negative	0.02
122	5/20/2015 18:40	HYDRANT	METAL	D	INTACT	RED	FIRST	OUTSIDE	Negative	0.07
123	5/20/2015 18:40	BALLERS	METAL	D	INTACT	YELLOW	FIRST	OUTSIDE	Negative	0.32
124	5/20/2015 18:41	UTILITY	METAL	A	INTACT	YELLOW	FIRST	OUTSIDE	Negative	0.02
125	5/20/2015 18:43	UTILITY	METAL	D	INTACT	YELLOW	FIRST	OUTSIDE	Negative	0.2
126	5/20/2015 18:43	UTILITY	METAL	D	INTACT	YELLOW	FIRST	OUTSIDE	Null	0.1
127	5/20/2015 18:43	HYDRANT	METAL	C	INTACT	RED	FIRST	OUTSIDE	Negative	0.1
128	5/20/2015 18:44	HYDRANT	METAL	C	INTACT	RED	FIRST	OUTSIDE	Positive	1.1
129	5/20/2015 18:45	HYDRANT	METAL	D	INTACT	RED	FIRST	OUTSIDE	Negative	0.07
130	5/20/2015 18:46	DOOR	METAL	D	INTACT	RED	FIRST	OUTSIDE	Negative	0.05
131	5/20/2015 18:49	CALIBRATION							Negative	0.1
132	5/20/2015 18:50	CALIBRATION							Negative	0.1
133	5/20/2015 18:50	CALIBRATION							Negative	0.1
134	5/20/2015 18:51	CALIBRATION							Negative	0.1

Appendix B

Photographs of Lead in Building Components

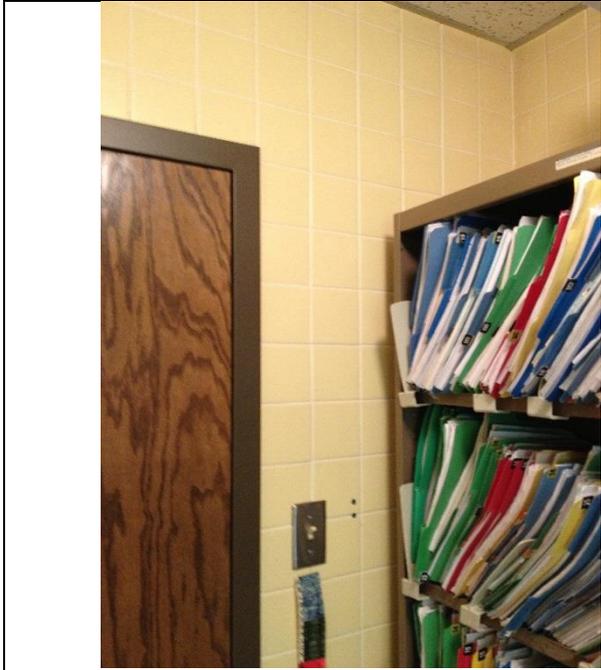


Center for Persons with Disabilities

Utah State University

6800 Old Main Hill

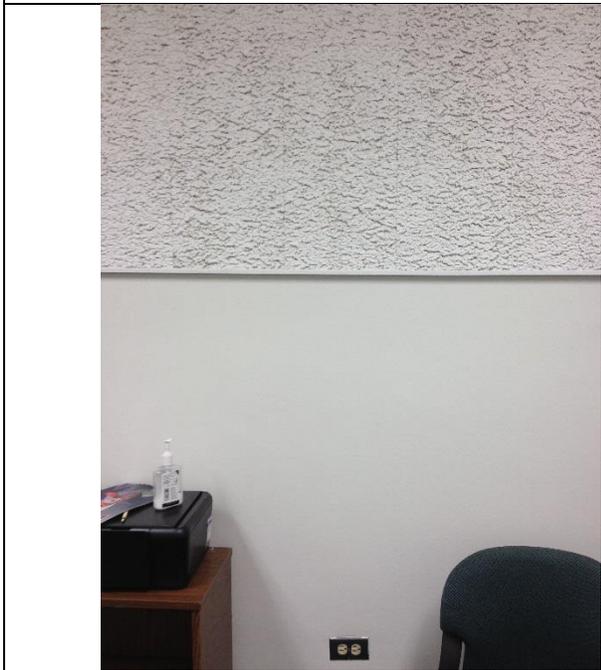
Logan, Utah 84322



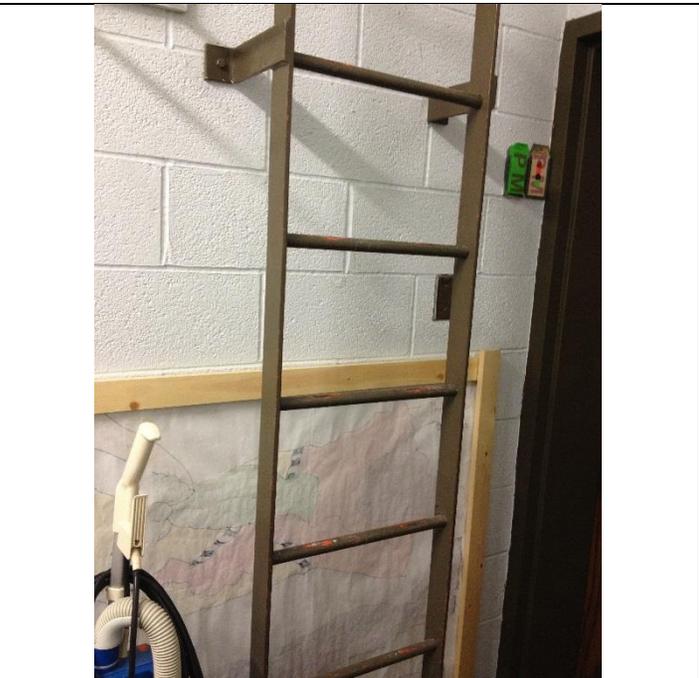
Yellow wall tile – All bathrooms



Room dividers



Plaster walls



Metal ladder



Exterior fire hydrant

End of Photographs



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

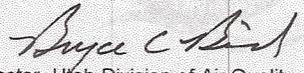
Utah Lead-Based Paint Certification

Lori Bergeson

PB-1916

Inspector (Exp. 11/06/16)




Director, Utah Division of Air Quality

DAQA-002-15

April 15, 2015

Lori Bergeson
The Lead Inspectors, LLC
4106 Mount Olympus Way
Salt Lake City, UT 84124

Ms. Bergeson:

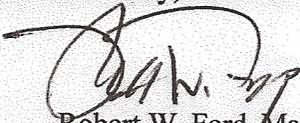
Re: Utah Lead-Based Paint Program Individual Certification Card

The Utah Division of Air Quality (DAQ) has reviewed your Utah Lead-Based Paint (LBP) Program Certification Application for Individuals and we are pleased to inform you that your application has been approved. Your new LBP program individual certification card is enclosed with this letter and this card is the sole method of individual certification documentation that you will receive from the DAQ.

Please check the information on your LBP program certification card carefully. Please confirm that the photograph, name, and certification discipline(s) are correct. Also, please remember to keep your current LBP program certification card with you at all times when you are performing regulated LBP work activities.

If you have any questions regarding this letter or the enclosed LBP program certification card, please contact Lisa Gelino-Titcomb at (801) 536-4007 or at lgelino@utah.gov.

Sincerely,



Robert W. Ford, Manager
Air Toxics, Lead-Based Paint, and Asbestos Section

RWF:lgt 



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

Utah Department of Environmental Quality
Division of Air Quality

The Utah Division of Air Quality certifies that:

The Lead Inspectors, LLC

is hereby certified as Lead-Based Paint firm in
accordance with the provisions of Utah Administrative
Code R307-841 and R307-842.

Certification number: **PBF-0384**

Expiration date: **04/30/18**


Director, Utah Division of Air Quality

DAQA-004-15

April 15, 2015

Lori Bergeson
The Lead Inspectors, LLC
4106 Mount Olympus Way
Salt Lake City, UT 84124

Ms. Bergeson:

Re: Utah Lead-Based Paint Firm Certification Card

The Utah Division of Air Quality (DAQ) has received your Lead-Based Paint (LBP) Certification Application for Firms and we are pleased to inform you that your application has been approved. Your new LBP firm certification card is enclosed with this letter and this card is the sole method of LBP firm certification documentation that you will receive from the DAQ. Please check the information on your LBP firm certification card carefully and please confirm that the LBP firm name and certification expiration date are correct.

Please be aware that your LBP firm is certified to perform regulated LBP projects in accordance with applicable state administrative rules and federal regulations and the use of Utah certified individuals is mandatory. Also, your LBP firm certification may be revoked or suspended if the Utah certified individual or LBP firm are found to be in violation of the LBP certification and work practice standards found in Utah Administrative Code R307-841 and R307-842 or the federal LBP regulations found in Title 40 Code of Federal Regulations Part 745.

If you have any questions regarding this letter or the enclosed LBP firm certification card, please contact Lisa Gelino-Titcomb at (801) 536-4007 or at lgelino@utah.gov.

Sincerely,



Robert W. Ford, Manager
Air Toxics, Lead-Based Paint, and Asbestos Section

RWF:lgt



Appendix F

Universal, Hazardous and/or Toxic Waste Inspection Report



**UNIVERSAL, HAZARDOUS AND
TOXIC WASTE INSPECTION**

**Utah State University
Center for Persons with Disabilities
6800 Old Main Hill
Logan, Utah 84322**

June 8, 2015

Submitted to:

Mr. Robert J. Anderson
Improvements Project Manager
State of Utah - DFCM
4110 State Office Building
Salt Lake City, Utah 84114

Prepared by:

A handwritten signature in black ink, appearing to read "Claude Dahlk".

Claude Dahlk, CHMM, CIEC
Inspector PBI-004

Reviewed by:

A handwritten signature in black ink, appearing to read "Erin C. Hallenburg".

Erin Hallenburg, P.E.
President, Hill West Environmental

Table of Contents

1.0	INTRODUCTION.....	1
2.0	METHODS	1
3.0	FINDINGS.....	2
4.0	CONCLUSIONS AND DISCUSSION.....	3
5.0	COST ESTIMATE	3

1.0 INTRODUCTION

On May 18, 2015, Hill West Environmental (Hill West) conducted an inspection to identify universal, hazardous, and/or toxic wastes at the Center for Persons with Disabilities (CPD) Building located at Utah State University – 6800 Old Main Hill, Logan, Utah. Mr. Robert J. Anderson, State of Utah Division of Facilities Management and Construction (DFCM) Improvements Project Manager, requested this inspection so that these materials could be identified and removed before any upcoming renovations/demolition of this building.

The materials to be identified, included in the scope of this inspection included the following:

- Batteries,
- Pesticides,
- Mercury thermostats and lamps,
- PCB light ballasts and oil-containing transformers,
- Identified and/or potential hazardous wastes,
- CFC-containing air conditioning units or refrigerators, and
- Other containerized toxic or special wastes in the building.

2.0 METHODS

Hill West conducted a visual inspection of all accessible areas throughout the building. As it was not feasible to inspect each light fixture, Hill West assumes that all ballasts contain PCBs. The contractor responsible for the removal of these waste are required to inspect each light fixture to determine if the words “No PCBs” or “Non-PCBs” are present on any of the ballasts. If no wording is present, the contractor shall assume that the light ballasts contain PCBs and dispose of accordingly. All other wastes are identified in Section 3.0 of this report.

3.0 FINDINGS

The following materials were identified in the building:

Material	Location	Quantity	Estimated Removal Costs
1) Mercury vapor fluorescent light tubes	Throughout building	2,240 (4' bulbs)	\$2,500.00
2) CFC-containing AC and refrigerant units	Throughout building	4 Refrigerators 12 Drinking fountains 2 Vending machine 2 Wall mounted AC Units 3 Exterior AC Units	\$3,000.00
3) PCB-containing ballasts	Throughout building	560 fixture (two ballasts per fixture) 1,120 each	\$3,500.00
4) PCB transformers	Pad mounted inside basement of building	3 – No visible labels	In use*
5) Hazardous chemicals	Laboratories	Oils/acids/bases/solvents	In use**
6) Lead-acid Batteries	Basement Boiler Room	1	In use**

* No visible labels were observed and therefore the transformers are assumed to contain PCBs. Due to safety concerns, Hill West did not inspect the backside of the transformers. These transformers should be sampled if labels are not present.

** These items should be reused for their intended purpose prior to demolition.

4.0 CONCLUSIONS AND DISCUSSION

Salt Lake County requires that these items be disposed of following EPA guidance outlined in 40 CFR 273 (Standards for Universal Waste Management) and 40 CFR 261 and 262 (Resource Conservation and Recovery Act (RCRA)), and Department of Transportation regulations outlined in 49 CFR 173 (Shippers-General Requirements for Shipments and Packaging) regarding the removal, transport, and disposal of these wastes. This guidance may allow certain quantities of these materials to remain in buildings during the renovation process.

The DFCM follows a slightly more stringent protocol developed by the Salt Lake Valley Health Department (SLVHD). These protocols require building owners to identify and remove all universal, hazardous, and/or toxic wastes from buildings before they are demolished or renovated. As such, Hill West recommends that all identified materials be removed and disposed of by properly trained and licensed contractors.

5.0 COST ESTIMATE

The estimated cost for the removal, packaging, transportation, and proper waste disposal of the universal wastes included in items 1 – 4 identified in the table above is **\$9,000.00**. Costs could be substantially greater if the transformers are determined to have PCBs (Additional \$9,000.00).

This estimate does not include fees for design or management consulting services. For Items 4 - 6, many of the chemicals and materials will be used for their intended purpose prior to demolition. Hill West recommends that a pre-demolition inspection be completed prior to demolition activities as many of these items will not be present.

Appendix G
Project Limitations

Project Limitations

This Project was performed using, a minimum, practices consistent with standards acceptable within the industry at this time, and a level of diligence typically exercised by EH&S consultants performing similar services.

The procedures used attempt to establish a balance between the competing goals of limiting investigative and reporting costs and time, and reducing the uncertainty about unknown conditions. Therefore, because the findings of this report were derived from the scope, costs, time and other limitations, the conclusions should not be construed as a guarantee that all universal, toxic and/or hazardous wastes have been identified and fully evaluated. Furthermore, Hill West Environmental assumes no responsibility for omissions or errors resulting from inaccurate information, or data, provided by sources outside of Hill West Environmental or from omissions or errors in public records.

It is emphasized that the final decision on how much risk to accept always remains with the client since Hill West Environmental is not in a position to fully understand all of the client's needs. Clients with a greater aversion to risk may want to take additional actions while others, with less aversion to risk, may want to take no further action.



State of Utah

GARY R. HERBERT
Governor

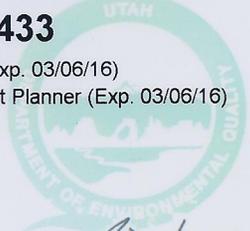
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DIVISION OF AIR QUALITY
Bryce C. Bird
Director

Utah Asbestos Certification
Claude W. Dahlk
ASB-0433
 Inspector (Exp. 03/06/16)
 Management Planner (Exp. 03/06/16)

Bryce C. Bird
 Director, Utah Division of Air Quality

DAQA-001-15

March 11, 2015

Claude Dahlk
7963 Douglas Drive
Park City, UT 84098

Dear Mr. Dahlk:

Re: Utah Asbestos Program Individual Certification Card

The Utah Division of Air Quality (DAQ) has reviewed your Utah Asbestos Program Certification Application for Individuals and we are pleased to inform you that your application has been approved. Your new asbestos program individual certification card is enclosed with this letter and this card is the sole method of individual certification documentation that you will receive from the DAQ.

Please check the information on your asbestos program certification card carefully. Please confirm that the photograph, name, and certification discipline(s) are correct. Also, please remember to keep your current asbestos program certification card with you at all times when you are performing regulated asbestos work activities.

If you have any questions regarding this letter or the enclosed asbestos program certification card, please contact Lisa Gelino-Titcomb at (801) 536-4007 or at lgelino@utah.gov.

Sincerely,

Robert W. Ford, Manager
Air Toxics, Lead-Based Paint, and Asbestos Section

RWF:bt/LW



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director



DAQA-003-15

January 13, 2015

Erin Hallenburg
Hill West Environmental, LLC
7445 South Brighton Way
Cottonwood Heights, UT 84121

Dear Mr. Hallenburg:

Re: Utah Asbestos Company Certification Card

The Utah Division of Air Quality (DAQ) has received your Certification Application for Asbestos Company and we are pleased to inform you that your application has been approved. Your new Asbestos company certification card is enclosed with this letter and this card is the sole method of Asbestos company certification documentation that you will receive from the DAQ. Please check the information on your asbestos company certification card carefully and please confirm that the company name and certification expiration date are correct.

Please be aware that your company is certified to perform asbestos projects in accordance with applicable state and federal rules and the use of Utah certified individuals is mandatory. Also, your certification may be revoked or suspended if the Utah certified individual or company are found to be in violation of the asbestos certification and work practices standards found in Utah Administrative Code R307-801 or the National Emission Standard for Asbestos found in Title 40 Code of Federal Regulations Part 61 Subpart M.

If you have any questions about this letter or the enclosed asbestos company certification card, please contact Lisa Gelino-Titcomb at (801) 536-4007 or at lgelino@utah.gov.

Sincerely,

Robert W. Ford, Manager
Air Toxics, Lead-Based Paint, and Asbestos Section

RWF:bt LW

Friday, July 10, 2015

Claude Dahlk
Hill West Environmental
7445 S. Brighton Way
Cottonwood Heights, UT 84121

Re: ALS Workorder: 1506368
Project Name: Center for Persons with Disabilities
Project Number: DFCM

Dear Mr. Dahlk:

Twenty wipe samples were received from Hill West Environmental, on 6/19/2015. The samples were scheduled for the following analysis:

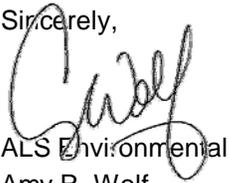
Tritium

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,



ALS Environmental
Amy R. Wolf
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1506368

Tritium:

The samples were analyzed for the presence of tritium according to the current revision of SOP 704.

All remaining acceptance criteria were met, with the following exception:

The tritium recovery in 3H150706-1LCSD is below the lower control limit of 85% at 56.3%. The laboratory control sample (LCS) recovery is within control limits at 87.0%. This sample is identified with an "L" flag on the final reports.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1506368

Client Name: Hill West Environmental

Client Project Name: Center for Persons with Disabilities

Client Project Number: DFCM

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CPD-01 RM191A NW Wall	1506368-1		WIPE	17-Jun-15	17:24
CPD-02 RM191A NE Wall	1506368-2		WIPE	17-Jun-15	17:26
CPD-03 RM191A East Wall	1506368-3		WIPE	17-Jun-15	17:28
CPD-04 RM191A NE Floor	1506368-4		WIPE	17-Jun-15	17:30
CPD-05 RM191A NW Floor	1506368-5		WIPE	17-Jun-15	17:32
CPD-06 RM191A SW Floor	1506368-6		WIPE	17-Jun-15	17:34
CPD-07 RM191A Cabinet Top	1506368-7		WIPE	17-Jun-15	17:35
CPD-08 RM181B Cabinet	1506368-8		WIPE	17-Jun-15	17:50
CPD-09 RM181B West Floor	1506368-9		WIPE	17-Jun-15	17:52
CPD-10 RM181B Middle Floor	1506368-10		WIPE	17-Jun-15	17:55
CPD-11 RM181B East Floor	1506368-11		WIPE	17-Jun-15	17:58
CPD-12 RM181A Sink Drain	1506368-12		WIPE	17-Jun-15	18:00
CPD-13 Biological Safety Hood	1506368-13		WIPE	17-Jun-15	18:02
CPD-14 BSH North Wall	1506368-14		WIPE	17-Jun-15	18:03
CPD-15 BSH East Wall	1506368-15		WIPE	17-Jun-15	18:05
CPD-16 BSH South Wall	1506368-16		WIPE	17-Jun-15	18:07
CPD-17 Baker Hood North Wall	1506368-17		WIPE	17-Jun-15	18:08
CPD-18 Baker Hood Bottom	1506368-18		WIPE	17-Jun-15	18:09
CPD-19 Baker Hood South Wall	1506368-19		WIPE	17-Jun-15	18:10
CPD-20 Baker Hood West Wall	1506368-20		WIPE	17-Jun-15	18:12



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.
Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #		1506368	
PAGE	1	of	2
DISPOSAL	BY LAB or RETURN		
PARAMETER/METHOD REQUEST FOR ANALYSIS			
Triation			

TURNAROUND TIME	Normal	SAMPLER	Clause Dabik
SITE ID			
EDD FORMAT			
PURCHASE ORDER			
BILL TO COMPANY	SAME		
INVOICE ATTN TO	SAME		
ADDRESS			
CITY / STATE / ZIP			
PHONE			
FAX			
E-MAIL			

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
1	CPD-01 Rm 191A NW Wall	wipe	10/17/15	1724	1	water		X										
2	CPD-02 Rm 191A NE Wall			1726	1			X										
3	CPD-03 Rm 191A East Wall			1728	1			X										
4	CPD-04 Rm 191A NE Floor			1730	1			X										
5	CPD-05 Rm 191A NW Floor			1732	1			X										
6	CPD-06 Rm 191A SW Floor			1734	1			X										
7	CPD-07 Rm 191A Cabinet TOP			1735	1			X										
8	CPD-08 Rm 181B Cabinet			1750	1			X										
9	CPD-09 Rm 181B west Floor			1752	1			X										
10	CPD-10 Rm 181B middle Floor			1755	1			X										
11	CPD-11 Rm 181B East Floor			1758	1			X										
12	CPD-12 Rm 181A Sink Drain			1800	1			X										

Form 2029

RELINQUISHED BY: [Signature]

RECEIVED BY: [Signature]

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

PRINTED NAME: Clause Dabik

DATE: 10/18/15

TIME: 1430

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)

LEVEL II (Standard QC)

LEVEL III (Sig QC + Ions)

LEVEL IV (Std QC + Ions + raw)

QC + Ions + raw

1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.
Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1506368

PAGE

2 of 2

PROJECT NAME	PROJECT No.	TURNAROUND TIME	SAMPLER	DISPOSAL	BY LAB	or	RETURN											
Center for Persons with Disabilities																		
PARAMETER/METHOD REQUEST FOR ANALYSIS																		
EDD FORMAT																		
PURCHASE ORDER																		
BILL TO COMPANY																		
INVOICE ATTN TO																		
ADDRESS																		
CITY / STATE / ZIP																		
PHONE																		
FAX																		
E-MAIL																		
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
13	CPD-13 Biological Safety Hood - Babbar	Babbar	6/17/15	1802	1			X										
14	CPD-14 BSH - north wall	wife		1803	1			X										
15	CPD-15 BSH - East wall			1805	1			X										
16	CPD-16 BSH - South wall			1807	1			X										
17	CPD-17 Baker Hood North wall			1808	1			X										
18	CPD-18 Baker Hood Babbar			1809	1			X										
19	CPD-19 Baker Hood South wall			1810	1			X										
20	CPD-20 Baker Hood West wall			1812	1			X										
<p>Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter</p> <p>Form 2029</p> <p>REPORT LEVEL / QC REQUIRED</p> <p>Summary (Standard QC)</p> <p>LEVEL II (Standard QC)</p> <p>LEVEL III (Std QC + forms)</p> <p>LEVEL IV (Std QC + forms + raw)</p> <p>1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other</p>																		

100cm² Template

6 of 29

RELINQUISHED BY: [Signature]

RECEIVED BY: Claude Dabala

RELINQUISHED BY: [Signature]

RECEIVED BY: C. Trumbull

RELINQUISHED BY: [Signature]

RECEIVED BY: [Signature]

RELINQUISHED BY: [Signature]

RECEIVED BY: [Signature]

DATE: 6/18/15

DATE: 6-17-15

DATE: 09-15



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Hill West

Workorder No: 1506368

Project Manager: AW

Initials: CDT Date: 6-19-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<input checked="" type="radio"/> N/A	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	<input checked="" type="radio"/> N/A	YES	NO
15. Do any water samples contain sediment? Amount of sediment: ___ dusting ___ moderate ___ heavy	Amount <input checked="" type="radio"/> N/A	YES	NO
16. Were the samples shipped on ice?		YES	<input checked="" type="radio"/> NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 #4	RAD ONLY	YES	<input checked="" type="radio"/> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>Amb</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>10</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / NA Contact: C. Way Date/Time: 6/19/15

Project Manager Signature / Date: C. Way 6/19/15

1506368

FedEx NEW Package
Express US Airbill

807J 6007 738J

FedEx Tracking Number

1 From

Date

6/18/15

Sender's Name

Claude Dabik

Company

HillWest-C

Address

7445 RP

City

Rockwood Tenn

State

TN

ZIP

37088

2 Your Internal Billing Reference

3 To

Recipient's Name

ANNA

Company

ALLS FRUIT

Address

2275 ...

City

FF Collins

State

MO

ZIP

63021



8071 6007 7381

0200

4 Express Package Service

NOTE: Service order line changed. Please select carefully.

Next Business Day

FedEx First Overnight

FedEx 2Day A.M.

FedEx Priority Overnight

FedEx Standard Overnight

FedEx Express Saver

FedEx 2Day

FedEx 2Day A.M.

FedEx Express Saver

FedEx Envelope*

FedEx Pak*

FedEx Box

FedEx Tube

Other

5 Packaging

Special Handling and Delivery Signature Options

Monday Delivery

Standard Overnight, FedEx 2Day, FedEx Priority Overnight, FedEx Standard Overnight, FedEx Express Saver

Signature Required

Signature Required (Signature of Shipper or Recipient)

Signature Required (Signature of Third Party)

Signature Required (Signature of Indirect Signatory)

Signature Required (Signature of Shipper)

Signature Required (Signature of Recipient)

Signature Required (Signature of Third Party)

Signature Required (Signature of Indirect Signatory)

Signature Required (Signature of Shipper)

Signature Required (Signature of Recipient)

Signature Required (Signature of Third Party)

Signature Required (Signature of Indirect Signatory)

Signature Required (Signature of Shipper)

Signature Required (Signature of Recipient)

Signature Required (Signature of Third Party)

Signature Required (Signature of Indirect Signatory)

Signature Required (Signature of Shipper)

Signature Required (Signature of Recipient)

Signature Required (Signature of Third Party)

644

IN U.S.A. SRM

Rev. Date 1/12 • Form 167001 • ©

RT 614

10:30 7381 06:19

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052.1049

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-01 RM191A NW Wall
Legal Location:
Collection Date: 6/17/2015 17:24

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-1
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.5)	U,M		6.3 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 06:13

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-02 RM191A NE Wall
Legal Location:
Collection Date: 6/17/2015 17:26

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-2
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 4)	U,M	7.1	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 06:44

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-03 RM191A East Wall
Legal Location:
Collection Date: 6/17/2015 17:28

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-3
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.8)	U,M	6.8	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 07:15

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-04 RM191A NE Floor
Legal Location:
Collection Date: 6/17/2015 17:30

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-4
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.7)	U,M		6.6 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 07:46

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-05 RM191A NW Floor
Legal Location:
Collection Date: 6/17/2015 17:32

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-5
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation H-3	ND (+/- 3.9)	U,M	PAI 704	7 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 08:17

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-06 RM191A SW Floor
Legal Location:
Collection Date: 6/17/2015 17:34

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-6
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.8)	U,M	6.8	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 08:48

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-07 RM191A Cabinet Top
Legal Location:
Collection Date: 6/17/2015 17:35

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-7
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.9)	U,M	6.8	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 09:19

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-08 RM181B Cabinet
Legal Location:
Collection Date: 6/17/2015 17:50

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-8
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.3)	U,M	5.9	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 09:50

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-09 RM181B West Floor
Legal Location:
Collection Date: 6/17/2015 17:52

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-9
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.3)	U,M	5.9	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 10:21

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-10 RM181B Middle Floor
Legal Location:
Collection Date: 6/17/2015 17:55

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-10
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 4.1)	U,M	7.1	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 10:52

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-11 RM181B East Floor
Legal Location:
Collection Date: 6/17/2015 17:58

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-11
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 4.1)	U,M	7.3	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 11:23

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-12 RM181A Sink Drain
Legal Location:
Collection Date: 6/17/2015 18:00

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-12
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation H-3	ND (+/- 3.9)	U,M	PAI 704	7 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 12:25

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-13 Biological Safety Hood
Legal Location:
Collection Date: 6/17/2015 18:02

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-13
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.7)	U,M		6.5 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 12:56

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-14 BSH North Wall
Legal Location:
Collection Date: 6/17/2015 18:03

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-14
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.9)	U,M		6.9 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 13:27

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-15 BSH East Wall
Legal Location:
Collection Date: 6/17/2015 18:05

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-15
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.6)	U,M	6.3	pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 13:58

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-16 BSH South Wall
Legal Location:
Collection Date: 6/17/2015 18:07

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-16
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.5)	U,M		6.3 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 14:29

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-17 Baker Hood North Wall
Legal Location:
Collection Date: 6/17/2015 18:08

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-17
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.5)	U,M		6.1 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 15:00

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-18 Baker Hood Bottom
Legal Location:
Collection Date: 6/17/2015 18:09

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-18
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704		Prep Date: 7/6/2015	PrepBy: JKB
H-3	ND (+/- 3.6)	U,M		6.3 pCi/sample	NA	7/8/2015 15:31

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-19 Baker Hood South Wall
Legal Location:
Collection Date: 6/17/2015 18:10

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-19
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.5)	U,M		6.3 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 16:02

Client: Hill West Environmental
Project: DFCM Center for Persons with Disabilities
Sample ID: CPD-20 Baker Hood West Wall
Legal Location:
Collection Date: 6/17/2015 18:12

Date: 10-Jul-15
Work Order: 1506368
Lab ID: 1506368-20
Matrix: WIPE
Percent Moisture: 0.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tritium by Liquid Scintillation			PAI 704			
H-3	ND (+/- 3.6)	U,M		6.4 pCi/sample	Prep Date: 7/6/2015 NA	PrepBy: JKB 7/8/2015 16:33

Explanation of Qualifiers

Radiochemistry:

- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- LT - Result is less than requested MDC but greater than achieved MDC.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS Environmental -- FC

Date: 7/10/2015 10:55

Client: Hill West Environmental
 Work Order: 1506368
 Project: DFCM Center for Persons with Disabilities

QC BATCH REPORT

Batch ID: 3H150706-1-1 Instrument ID: LS6500 Method: Tritium by Liquid Scintillatio

LCS		Sample ID: 3H150706-1			Units: pCi/sample			Analysis Date: 7/8/2015 17:35			
Client ID:		Run ID: 3H150706-1A			Prep Date: 7/6/2015			DF: NA			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
H-3	105 (+/- 18)	7	121.2		87	85-115					P,M3

LCSD		Sample ID: 3H150706-1			Units: pCi/sample			Analysis Date: 7/8/2015 18:06			
Client ID:		Run ID: 3H150706-1A			Prep Date: 7/6/2015			DF: NA			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
H-3	68 (+/- 12)	7	121.2		56.3	85-115		105	1.7	2.1	L,M3

MB		Sample ID: 3H150706-1			Units: pCi/sample			Analysis Date: 7/8/2015 17:04			
Client ID:		Run ID: 3H150706-1A			Prep Date: 7/6/2015			DF: NA			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
H-3	ND	7.3									U,M

The following samples were analyzed in this batch:

1506368-1	1506368-2	1506368-3
1506368-4	1506368-5	1506368-6
1506368-7	1506368-8	1506368-9
1506368-10	1506368-11	1506368-12
1506368-13	1506368-14	1506368-15
1506368-16	1506368-17	1506368-18
1506368-19	1506368-20	

16-Jul-15

CM/GC Fee Schedule

Project FLCC maximum:	A Pre-const. Fee	B Construction Management Fee % of FLCC	C Cost of Staff Fee % of FLCC	D Basic General Conditions % of FLCC	E Total Fee B-D % of FLCC	F Self performed work%
\$1,000,000	\$10,000	10.0%	6.5%	6.0%	22.50%	7.0%
\$2,500,000	\$12,500	8.0%	6.0%	4.5%	18.50%	7.0%
\$5,000,000	\$25,000	5.0%	5.0%	3.0%	13.00%	7.0%
\$10,000,000	\$40,000	3.5%	4.0%	1.5%	9.00%	7.0%
\$20,000,000	\$70,000	3.0%	4.0%	1.5%	8.50%	7.0%
\$30,000,000	\$90,000	2.9%	3.5%	1.5%	7.90%	7.0%
\$50,000,000	\$125,000	2.8%	3.5%	1.5%	7.80%	7.0%
\$75,000,000	\$187,500	2.8%	3.0%	1.5%	7.25%	7.0%
\$100,000,000	\$250,000	2.7%	3.0%	1.5%	7.20%	7.0%
\$150,000,000	\$300,000	2.6%	3.0%	1.5%	7.10%	7.0%

Management Fee, Staff Fee and Basic General Conditions could increase on Projects under \$10,000,000 due to complexity and schedule duration

Each CM/GC is eligible to earn a Customer Satisfaction Incentive (CSI). The eligible incentive is established by DFCM holding at risk 20% of the Management Fee with a maximum cap of \$100,000. The at risk portion of the fee is then increased up to \$100,000 as defined here in.

Example:

Determining the Fee: FLCC of \$15,000,000 x 3.0% = \$450,000

Determining the maximum CSI: \$450,000 x 20% = \$90,000 held at risk and increased by a maximum of \$90,000 for a total maximum possible CSI of \$180,000

Each period the DFCM will evaluate the performance of the CM/GC based on the evaluation criteria. DFCM reserves the right to request any additional information required to complete this evaluation. Each period the CM/GC and the DFCM Management will meet to determine the amount of the CSI earned. After this meeting the DFCM will tabulate the period score to determine the amount of incentive earned for that period. After the CSI is determined for the period the CM/GC may immediately bill for the incentive earned in the period

Example:

\$180,000 Eligible Incentive divided by five periods = \$36,000 per period

Evaluation Criteria:

Budget/Change Management (20 points)

Schedule Management (20 points)

Preconstruction/ Quality Management (20 points)

Responsiveness and Collaboration (20 points)

Procurement/ Safety and Site Management (20 points)

Total Points Possible 100

Period CSI Payment Determination:

At Risk Portion of CSI: a score of 80% or higher will receive 100% of the at risk portion, scores below 80% will lose the at risk portion for that period

Incentive Portion of CSI:

Scores from 80-100 % will earn an equal % of the Period Incentive (85% score = 85% incentive)

Scores below 80% will not earn any incentive for that that period

Re-earning of lost CSI: The CM/GC may "re-earn" a lost payment for the duration of one period following the previous period's loss of CSI. This is demonstrated by an increase in performance evaluation score from the previous month. The amount of fee "re-earned" will be equal to the difference of the fee earned this period and the fee earned the previous period.

Basic General Conditions

Office Trailer

Storage Trailer

Conex/Van Storage 20'

Project Sign

Mobilization/ Demobilization

Security Equipment or Video Monitoring (Basic Security)

Telephone Service per line

Cell Phones per Person

DSL Line

BIM 360 (iPads, equipment)

BIM 360 (Software, fees, ets)

Computer/Software/Network/Email/License/Server/Maintenance

Copier/Fax/Scanner

Office Furnishings

Office Supplies

Primavera Schedule Software

Prolog Manager Software

Project Collaboration Software Website (Unifier,etc.)

Chemical Toilets

Banners

Water Cooler & Water

Water/Thermos/Ice/Cups

Jobsite Radio Communications

Progress Clean-Up

Safety Training

Safety Awards

Safety & Productivity Incentives

First Aid/Safety Supply

Bulletin Board & Safety Signs/all Safety Supplies

Drug Testing
PPE (personal safety equipment)
Fire Extinguishers
Small Tools
Pick-Up Truck
Pick-up/Equip Gas, Oil, & Repairs
Submittals Expressage/Shipping
Progress Photos
As-Built Drawings & O&M manuals
Electronic Contract Document Storage
Punchlist Administration
LEED Management

Preconstruction services to include three bid packages. A fee of \$10,000 will be added for each additional bid package above the three included bid packages