## Illinois Department of Transportation - Construct Materials Lab

Bridging Documents – Final Report CDB Project Number - 630-442-057

## Appendix III-3 Room Data Sheets

### **Room Data Sheets**

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Н.	CBM Chemistry Labs	2.71-2.76
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May 9, 2023 III-3 Room Data Sheets

Program ID:	1.11	Room Name:	District 6 - Op	en Lab		Department:
Quantity:	1	Area (SF):	1,634	Occupants:	4-5	District 6
Function:	Aggregate, Co	oncrete, and Soils Tes	ting along with sam	ple check-in and sta	ging	_
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
□ Ероху	☐ GWB	☐ GWB	☑ Ероху	☑ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	Cased opening	
Other	Other	☐ Other	<b>☑</b> Other	☐ Other	<b>☑</b> Door size	6'x8'H
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	
		LABO	ORATORY SER	VICES		
DUCTED LAB EQL	JIPMENT			G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		✓ Mobile Casework	Note G.3
☐ Snorkel	-		_ ☐ Hand Wash		- ✓ Fixed Casework	Note G.3
☐ Canopy	-		Cup Sink		- ☐ Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		_ ☑ Counter Material	Stainless Steel
✓ Other	Note G.2		_ ☐ Floor Drain		_ ☐ Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 8 AC	CH	- ☑ Other	Nata C 2	<b>☑</b> Tall Shelving	Note G.2
☑ Air Filtration (Sup	ply and/or Exhaus	st)	-	Note G.2	☐ Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
✓ Island Bench	power		☐ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench	Duplex @ 24"	O.C., type: Direct	Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mount	ed	☐ Purified Water		✓ Vibration Control	Note G.2
☐ Emergency	<b>☑</b> UPS	Note G.2, G.4	☐ Vacuum		<b>✓</b> Temperature	Note E.1, E.4
☑ 120V	Note B.1		_		✓ Acoustics	Note E.3
□ 208V			☑ Other/Specialty	Note G.2	✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
✓ Data	☑ WiFi Router	☑ Comm.	☐ Acid/ Corrosive	Flammable	☐ Radioactivity	
✓ Other	Note G.2, G.5	: C 6	☐ Toxic	☐ Radioactive	☐ Other	
	Note G.2, G.3	, G.0	<b>☑</b> Other	Note G.2		
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		✓ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	At all sinks	☐ Monitor	
☐ Zoned Lighting			<b>✓</b> Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet pipe type	☐ Keyed Entry	
☑ Natural Light			☑ Fire Extinguisher	ABC	✓ Access Control	Note G.3
			<b>☑</b> Other	Note G.2	☑ Other	Note G.6

Program ID: 1.11 Room Name: District 6 - Open Lab Department:

#### **NOTES**

A. Adjacencies: The Open lab directly contains these zones: Aggregate (1.11.1), Soils (1.11.4), Sort and Log Area (1.11.5), and Concrete (1.11.6). The Open lab must be directly adjacent to the Open HMA Lab (1.23). The Open lab must be adjacent to the Separate District 6 Entrance and the District 6 laboratory staff office area. The Open lab must also be adjacent to Storage (1.18) and the Calibration/Repair Room (1.25). The Open lab must also have access to the shared loading dock and dumpsters.

#### **B.** Equipment:

- 1. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.
- 2. Refer to the Room Data sheets areas within the lab.

#### C. Primary Areas:

1. Open Lab contains these zones:

1.11.1 Aggregate

1.11.4 Soils

1.11.5 Sort & Log

1.11.6 Concrete

#### D. Material Flow:

Sample delivery is anticipated to be primarily through the separate D6 entrance. All HMA, PCC, Agg, and Soil samples delivered to the D6 lab will be checked in and temporarily stored awaiting testing at a central location Sort/Log (1.11.5) near the entrance. After testing, samples will be disposed of in a dumpster or moved to the storage room (1.18) for longer-term storage. A computer workstation should be located in the sample check-in area.

Double doors are required for access to the shared loading dock area and storage (1.18) to facilitate bulk sample movement and large equipment delivery. There should be clear circulation space between the open lab entrance closest to the sort/log area (1.11.5) and the double doors, but they do not need to be adjacent.

Field technicians will also utilize the separate D6 entrance to pick-up and drop off field testing equipment. This equipment will be stored in adjacent D6 Storage (1.18). It is anticipated carts will be used to transport equipment from the sort/log (1.11.5) to the storage area (1.18) because storage is not required to be adjacent to (1.11.5) or the separate D6 entrance.

An overhang and adjacent sample drop-off parking is desired at the separate D6 entrance.

#### E. Environmental Conditions

- 1. Temperature: 68-72deg F +/- 2degF, After hour temperature is 77deg F to ensure that the concrete curing tank water temperature is maintained in concrete (1.11.6)
- 2. Humidity: 23-55%RH +/- 5%
- 3. Acoustic: NC-36
- 4. After hours temperature: Refer to MEP Narrative.

#### F. General Notes:

- a. No natural gas or speciality gases are required in District 6.
- b. Dust collection and room ventilation system are required to collect the silica dust that shall be generated in this spaces. Ensure that filters are provided at exhaust grilles.

Program ID:	1 11	Room Name: District 6 - Open Lab	Department:
Program ID:	1.11	Room Name: District 6 - Open Lab	Department.

#### G. RDS Notes:

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to the specific zones for Additional laboratory Requirements.
- 3. Casework requirements, refer to the RDS of each zone.
- 4. UPS only for selected equipment, refer to equipment matrix and electrical Narrative.
- 5. Phone required in Open Lab.
- 6. Door bell/intercom at the sort Log Area Refer to Security Narrative.

Program ID:	1.11.1	Room Name:	Aggregate			Department:
Quantity:	1	Area (SF):	302.5	Occupants:	1-2 max.	District 6
Function:	Aggregate Te	esting Area		_		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	6' x 8'H
☑ Other	✓ Other	☑ Other	☑ Other	☑ Other	☐ Door Size	
Note C.1	Note C.1	Note C.1	Note C.1	Note C.1		
DUCTED LAB EQU	JIPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		Mobile Casework	
✓ Snorkel	Note E.4		Hand Wash		Fixed Casework	base cabinets
Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		Counter Material	Stainless Steel
Other			☐ Floor Drain		Other	
HVAC			☑ Scullery Sink	Note D.4	STORA	AGE
✓ Pressurization	Note D.1		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Note D.1		<b>☑</b> Other	Sediment trap @	✓ Tall Shelving	
☑ Air Filtration (Supp	. •	Note D.1		sink	Peg Board	
POWER AND DAT	Ά		LABORATO	RY SERVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		✓ Vibration Control	Note D.3
☐ Emergency	<b>☑</b> UPS	Note D.1	☐ Vacuum		✓ Temperature	Note E.1,E.3
<b>✓</b> 120V	Note B.2				☐ Acoustics	
□ 208V			☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Note B.3
<b>☑</b> Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
<b>☑</b> Other	C PDC 1 1:	1	☐ Toxic	☐ Radioactive	Other	
	See RDS 1.1	L	Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ ССТУ	
☐ Window Treatmen	t		☑ Sprinkler Type	Note D.1	☐ Keyed Entry	-
☐ Natural Light	_		☑ Fire Extinguisher	Note D.1	☐ Access Control	_
			•		✓ Other	Note D.5

Program ID: 1.11.1 Room Name: Aggregate Department:

### **NOTES**

<u>A. Adjacencies</u>: Must be directly connected to the Aggregate Isolation Room (1.12). Close access is also desired to the sort/log area (1.11.5), the soils area (1.11.4), and the HMA Extraction/Ignition Room (1.24).

#### **B.** Equipment:

Ovens, Balance, Agg Washer, Gilson Splitter

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.
- 3. Equipment that generates a lot of noise and dust shall be located In the Aggregate Isolation room (1.12), refer to RDS.

#### C. Material Flow:

Samples are delivered, logged in, and staged in the sort/log (1.11.5) prior to testing in the aggregate area. Some testing is performed on samples that are prepared in the HMA Extraction/Ignition Room (1.24), and some aggregate samples are prepared for testing in the Soils Area (1.11.4).

#### D. RDS Notes:

- 1. Refer to RDS 1.11 Open lab.
- 2. Refer to Narratives for additional information.
- 3. Vibration control using concrete blocks/pedestals for mounting equipment.
- 4. Heavy Duty Scullery Sink is needed to support Ploog Washing equipment. The Scullery sink must be two-compartment with a minimum depth of 16" with a drip tray on both sides. The left drip tray must support the Ploog Washer (120 lbs.) Equipment DAG-05.
- 5. Refer to Security Narratives.

#### E. Environmental Conditions:

- 1. Temperature: Refer to RDS 1.11
- 2. Humidity: Refer to RDS 1.11
- 3. After hours temperature: Refer to Mechanical Narrative.
- 4. Dust Collection(Silica): -Provide a snorkel to collect silica dust above work stations with the ovens, balances , agg. washer.

Program ID:	1.11.4	Room Name:	Soils			Department:
Quantity:	1	Area (SF):	544.5	Occupants:	2 max.	District 6
Function:	Soil Testing			_		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	6'Wx8"H
<b>☑</b> Other	<b>✓</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☐ Door Size	
Note D.1	Note D.1	Note D.1	Note D.1	Note D.1		
DUCTED LAB EQU	IIPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note E.4		☐ Hand Wash		✓ Fixed Casework	Base cabinets
☐ Canopy			Cup Sink		☑ Casework Material	Stainless Steel
☐ Biological Safety C	Cabinet		☐ Deep Sink		☑ Counter Material	Stainless Steel
☐ Other			✓ Floor Drain		Other	
HVAC			✓ Scullery Sink	Note D.3	STORA	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Note	D.1	<b>✓</b> Other	Sediment trap @	☐ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust)	Note D.1		sink	☐ Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	D.C.	☑ Compressed air	Note B.2	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	1	☐ Purified Water		✓ Vibration Control	Note D.2
☐ Emergency	<b>☑</b> UPS	Note D.1	□ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note B.2				Acoustics	Note E.1
<b>☑</b> 208V	Note B.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	✓ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
✓ Other	See RDS 1.11		☐ Toxic	☐ Radioactive	☐ Other	
	3ee KD3 1.11	L	Other			
LIGHTING			-	FIRE PROTECTION	VISU	AL
Ambient Light Leve	70-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			. <b>☑</b> Eyewash	at sinks	☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			PPE .		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note D.1	☐ Keyed Entry	
☑ Natural Light			☑ Fire Extinguisher	Note D.1	☐ Access Control	

Program ID: 1.11.4 Room Name: Soils Department:

#### **NOTES**

#### A. Adjacencies:

The soils testing area must be directly connected to the Soils Isolation Room (1.15). The soils testing area must be adjacent to the Aggregate testing area (1.11.1) and the sort/log area (1.11.5).

#### **B.** Equipment:

230 Oven, line of (9) Hotplates, electric water bath/chiller.

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. Material Flow:

Samples are delivered, logged in, and staged in the sort/log (1.11.5) prior to testing in the soils area.

### D. RDS Notes:

- 1. Refer to RDS 1.11 Open lab.
- 2. Vibration control using concrete blocks/pedestals for mounting equipment.
- 3. The scullery sink must be two-compartment a minimum of 14" deep with drip trays on both sides.

#### E. Environmental Conditions:

- 1. Temperature: Refer to RDS 1.11 2. Humidity: Refer to RDS 1.11
- 3. After hours temperature: Refer to MEP Narrative
- 4. Dust Collection(Silica): Provide snorkels to collect silica dust above the workstations with with ovens, and hotplates.

Program ID:	1.11.5	Room Name:	Sort/Log			Department:
Quantity:	1	Area (SF):	605	Occupants:	1-2 max.	District 6
Function:	Sample intak	e, logging, and s	taging.	_		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	6'Wx 8'H
<b>☑</b> Other	<b>☑</b> Other	☐ Other	☐ Other	☐ Other	☐ Door Size	
Note C.1	Note C.1	Note C.1	Note C.1	Note C.1		
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		Mobile Casework	
Snorkel			☑ Hand Wash		Fixed Casework	base cabinets
Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		Counter Material	Stainless Steel
Other			☑ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Note D.1		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	-	Note D.1	Other		☑ Tall Shelving	heavy duty
☑ Air Filtration (Sup	<u> </u>	t) Note			Peg Board	
POWER AND DAT	Α			RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"		Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	Floor Mounte	d	Purified Water		✓ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		☑ Temperature	Note C.1
☑ 120V	Note D.1		· <u></u>		✓ Acoustics	Note C.1
□ 208V			☑ Other/Specialty	Note D.1	☑ Humidity	Note C.1
☐ 480V				TERIAL STORAGE		
<b>☑</b> Data	☑ WiFi Router	☑ Comm.	Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
<b>☑</b> Other	Note D.1 , No	ote C.3, Note D.4	☐ Toxic☐ Other	☐ Radioactive	Other	
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at sinks	☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ cctv	
☐ Window Treatmen	t		☑ Sprinkler Type	D.1	☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher	D.1	☐ Access Control	
			•		☑ Other	Note D.3

Program ID: 1.11.5 Room Name: Sort/Log Department:

#### **NOTES**

#### A. Adjacencies:

The sort/log area needs to be adjacent to the separate D6 entrance and the D6 lab staff offices. The sort/log area also needs to be adjacent to the HMA sample staging area (1.23.6), aggregate testing area (1.11.1), soils testing area (1.11.4), and concrete testing area (1.11.6).

#### **B.** Equipment:

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. Material Flow:

Samples are delivered, logged in, and staged in the sort/log (1.11.5).

#### D. RDS Notes:

- 1. Refer to RDS 1.11 Open lab.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.
- 3. Door bell/intercom Refer to Security Narrative
- 4. Comm port needed for VOIP phone and computer. VOIP phone should also ring in the Open HMA Lab 1.23.

#### E. Environmental Conditions:

- 1. Temperature: Refer to RDS 1.11 2. Humidity: Refer to RDS 1.11
- 3. After hours temperature: Refer to MEP Narrative

Program ID:	1.11.6	Room Name:	<b>Concrete Lab</b>			Department:
Quantity:	1	Area (SF):	181.5	Occupants:	2	District 6
Function:	Concrete Cyli	nder testing and	Curing Area	_		•
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .
<b>☑</b> Epoxy	<b>☑</b> GWB	<b>☑</b> GWB	□ Ероху	✓ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	Cased Opening.	6'W x 8' H
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	✓ Other	☐ Other	
See Note 1	See Note 1	See Note 1	See Note 1	See Note 1		
		LAB	DRATORY SER	VICES		
DUCTED LAB EQU	JIPMENT		PLUMBING	SERVICES	CASEW	/ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note E.4		☐ Hand Wash		☑ Fixed Casework	Base cabinet
☐ Canopy			Cup Sink		☑ Casework Material	Stainless Steel
☐ Biological Safety (	Cabinet		☐ Deep Sink		✓ Counter Material	Stainless Steel
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		✓ Floor Sink	Note D.2	☐ Tall Cabinets	
☑ Air Change Per Ho	our Note D	0.1	☑ Other	Sediment trap @	✓ Tall Shelving	heavy duty
☑ Air Filtration (Supp	oly and/or Exhaust)	Note D.1		sink; Note D.4	Peg Board	
POWER AND DAT	Α		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	D.C.	☑ Compressed air		SPECIAL REQ	UIREMENTS
Ceiling Mounted	✓ Floor Mounted	d	Purified Water		☑ Vibration Control	Note D.3
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
✓ 120V	Note B.2		-		☐ Acoustics	
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.1
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	·
<b>✓</b> Data	✓ WiFi Router	Comm.	Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
✓ Other	See RDS 1.11		Toxic	☐ Radioactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION		IAL
Ambient Light Leve	60-80FC		Safety Shower		☐ White Board	
☐ Task Light —			Eyewash		Monitor	
Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE 		SECUE	RITY
Occ Sensor			In-Use Signage		ССТУ	
Window Treatmen	t		Sprinkler Type	Note D.1	☐ Keyed Entry	
☐ Natural Light			✓ Fire Extinguisher	Note D.1	☐ Access Control	

Program ID: 1.11.6 Room Name: Concrete Lab Department:

#### **NOTES**

#### A. Adjacencies:

The concrete testing area must be adjacent to the sort/log area (1.11.5).

#### **B.** Equipment:

Curing Tanks (Qty 3) + future tank (Qty1), cylinder breaker. Curing tanks should be elevated for more ergonomic use.

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. Material Flow:

Samples are delivered, logged in, and staged in the sort/log (1.11.5) prior to testing in the concrete area.

#### D. RDS Notes:

- 1. Refer to RDS 1.11 Open lab.
- 2. The floor sink would need a hose connection to facilitate with the filling and draining of curing tanks.
- 3. Vibration control using concrete blocks/pedestals for mounting equipment.
- 4. Provide a CW water hose bib to fill curing tanks.

#### E. Environmental Conditions:

- 1. Temperature: Refer to RDS 1.11 2. Humidity: Refer to RDS 1.11
- 2. Humidity: Refer to RDS 1.11
- 3. After hours temperature: Refer to MEP Narrative 4. Dust Collection(Silica): -Provide exhaust via snorkels over workstation and above cylinder breaker.

Program ID:	1.12	Room Name:	Aggregate Is	olation Room		Department:
Quantity:	1	Area (SF):	181.5	Occupants:	1-2 max.	District 6
Function:	Location of	- Aggregate Shak	ers	_		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
☑ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	✓ Other	<b>☑</b> Other	✓ Other	✓ Door Size	3'-6"x 8'H
Note D.1	Note D.1	Note D.1	Note D.1	Note D.1		3-0 X 8 H
DUCTED LAB EQU	IPMENT		PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note E.5		☐ Hand Wash		☑ Fixed Casework	base cab.
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	abinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Se	e RDS 1.11	☐ Other		✓ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust	See RDS 1.11	•		Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1. E.4
<b>☑</b> 120V	See note				☐ Acoustics	
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Note D.2
<b>☑</b> Data	✓ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			Toxic	☐ Radioactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		☐ Safety Shower		☐ White Board	
☐ Task Light			Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE ·		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet Pipe Type	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	ABC	☐ Access Control	

Program ID: 1.12 Room Name: Aggregate Isolation Room Department:

#### **NOTES**

A. Adjacencies: Direct connection to the Aggregate Area

#### B. Equipment- Noisy equipment:

Aggregate shakers, Sifters, ovens, hotplates, ploog washer

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. General Notes: -

a. Dust collection and room ventilation system are required to collect the silica dust that shall be generated in this spaces. Ensure that filters are provided at exhaust grilles.

#### D. RDS Notes

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. The equipment in this room generates allot of noise. Isolate the slab and ensure walls go to ceiling to ensure no noise leaks into other spaces.

#### E. Environmental Conditions

- 1. Temperature: Refer to RDS 1.11 2. Humidity: Refer to RDS 1.11 3. Acoustic: Refer to RDS 1.11
- 4. After Hours Temperature: Refer to Mechanical Narrative
- 5. Dust Collection (Silica) Provide Snorkel(s) over workstations with sifters.

Program ID:	1.13	Room Name:	Repair Isolati	ion Room		Department:
Quantity:	1	Area (SF):	181.5	Occupants:	1 to 2	District 6
Function:	Location for	r for maintenand	ce service equip	_ ment- sandblast	ter	-
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
<b>☑</b> Epoxy	<b>☑</b> GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		✓ Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
Other	<b>✓</b> Other	☑ Other	<b>✓</b> Other	<b>☑</b> Other	☑ Door Size	21141
Note D.1	Note D.1	Note D.1	Note D.1	Note D.1		3'W x 8'H
DUCTED LAB EQU	JIPMENT		PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		■ Fixed Casework	
☑ Canopy	Note E.5		☐ Cup Sink		□ Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		- ☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Note D.2		Other		- ☐ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaus	t) Note D.2	-		Peg Board	
<b>POWER AND DAT</b>	Ά		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	☑ Compressed air	at sandblaster	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounte	ed	Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1, E.4
☑ 120V	Note B.2		•		☑ Acoustics	Note E.3
□ 208V			☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Note B.1
☑ Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet pipe type	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		☐ Access Control	
			-		☑ Other	Note D.3

Program ID: 1.13 Room Name: Repair Isolation Room Department:

#### **NOTES**

#### A. Adjacencies:

Direct connection to the Calibration / Repair Room (1.25)

#### **B.** Equipment:

- 1. The Sandblasters (used for cleaning field equipment), grinders are very noisy and needs to be isolated from the open lab. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. General Notes: n/a

a. Dust collection and room ventilation system are required to collect the silica dust that shall be generated in this spaces. Ensure that filters are provided at exhaust grilles.

#### D. RDS Notes:

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to RDS sheet 1.11.
- 3. Refer to Security Narratives.

#### E. Environmental Conditions

- 1. Temperature: 68-72deg F +/- 2degF
- 2. Humidity: 23-55%RH +/- 5%
- 3. Acoustic: NC-36
- 4. After Hours Temperature: Refer to MEP Narrative
- 5. Dust Collection (Silica) A canopy is required for backup dust exhaust collection in the event a sandblaster seal leaks or dust is generated cleaning the sandblaster

recirculation filter. Canopy does not have to be on at all times, but can be

controlled via a switch.

Program ID:	1.14	Room Name:	<b>HMA Isolation</b>	n Room		Department:
Quantity:	1	Area (SF):	121	Occupants:	1 to 2	District 6
Function:	Location of	- noisy equipmen	t- Wet saw equ	ipment		•
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
□ Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	
Note D.1	Note D.1	Note D.1	Note D.1, D.4	Note D.1	Note D.1	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note D.5		☐ Hand Wash		▼ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	\GE
✓ Pressurization	Negative		✓ Floor Sink	Note D.3, B.3	☐ Tall Cabinets	
☑ Air Change Per Ho	our 6ACH MIN		<b>✓</b> Other	Sediment trap @	☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)	)		sink, Note D.3	☐ Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	D.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1, E.4
☑ 120V	Note B.2				Acoustics	Note E.3
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Note B.1
<b>☑</b> Data	✓ WiFi Router	Comm.	Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			Toxic	☐ Radioactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		Safety Shower		☐ White Board	
☐ Task Light			Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE		SECUR	ITY
☐ Occ Sensor			☐ In-Use Signage		□ сстv	
Window Treatmen	t		Sprinkler Type	Note D.2	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	Note D.2	✓ Access Control	

Program ID: 1.14 Room Name: HMA Isolation Room Department:

#### **NOTES**

#### A. Adjacencies:

Direct connection to the Open HMA Lab (1.23). Also adjacent to the Hamburg Wheel area (1.23.1) and I-FIT area (1.23.2)

#### **B.** Equipment:

- 1. Noisy equipment- Wet saws, Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.
- 3. Wet Saw Plumbing requirements:

The largest wet saw reservoir is  $43^{\prime\prime}$ L x  $21.5^{\prime\prime}$ W x  $5^{\prime\prime}$  H. The smaller reservoir is  $33^{\prime\prime}$ L x  $18^{\prime\prime}$ W x  $4^{\prime\prime}$ H. In both cases, they are filled with roughly 2 inches of water, which converts to the largest reservoir holding about 8 gallons of water for sawing. Once the reservoir is filled, the water is recirculated during sawing. The reservoirs are usually filled once for the day and then cleaned at the end of the day. The biggest issue is disposing of the sludge generated by the sawing, which may accumulate around 0.5 to 1 inch thick. The sludge is composed primarily of aggregate fines with some component of asphalt binder. Currently, the water is drained from the reservoir into a 5 gallon bucket. The sludge is then washed out with a hose into a 5 gallon bucket. The sludge and water are disposed of outside. In the new facility, we need to be able to fill, drain, wash the sludge out of the reservoirs, and dispose of the sludge while remaining in the HMA isolation room (1.14). We assume there will be an occasional need to clean out some sort of sludge trap.

#### C. General Notes: None

#### D. RDS Notes:

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to RDS sheet 1.11
- 3. The floor sink/ floor trench is intended to drain and facilitate cleaning out the wet saw water reservoir pans. Additionally, there are large amounts of sediment generated during wet sawing, so a sediment trap should be provided. Floor sink to be 16" x 16".
- 4. The wall finish needs to be able to tolerate water spray from the wet saws and be easy to clean.

#### E. Environmental Conditions

- 1. Temperature: 68-72deg F +/- 2degF 2. Humidity: 23-55%RH +/- 5%
- 3. Acoustic: NC-36
- 4. After Hours Temperature: Refer to Mechanical Narrative
- 5. Silica Dust Collection Provide dust collection above the wet saws in the event dust is generated during usage.

Program ID:	1.15	Room Name:	Soils Isolation	n Room		Department:
Quantity:	1	Area (SF):	181.5	Occupants:		District 6
Function:	location of so	il breakdown mix	ers and proctor h	ammer.		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	D00	R
<b>☑</b> Epoxy	<b>☑</b> GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	3'-6" x8'H
Note D.1	Note D.1	Note D.1	Note D.1 & D.4	Note D.1	Note D.1	3-0 X611
DUCTED LAB EQU	IIPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note D.3, F.1		☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Note D	0.2	<b>☑</b> Other		✓ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust	Note D.2	-		☐ Peg Board	
<b>POWER AND DAT</b>	Α		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1, E.4
☑ 120V	Note D.2				Acoustics	Note E.3
□ 208V	Note D.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V				TERIAL STORAGE	✓ Sound Isolation	
✓ Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 I	FC	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE -		SECUR	ITY
Occ Sensor			☐ In-Use Signage		. 🗆 сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note D.1	Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	Note D.1	Access Control	

Program ID: 1.15 Room Name: Soils Isolation Room Department:

#### **NOTES**

- A. Adjacencies: Direct connection to the Soils Area in the main Lab.
- B. Equipment: ovens, hydrometer station, limits station
  - 1. The Soil sample prep equipment(Counter current Mixer/crusher), are very noisy and needs to be isolated from the open lab.
  - 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. General Notes:

a. Dust collection and room ventilation system are required to collect the silica dust that shall be generated in this spaces. Ensure that filters are provided at exhaust grilles.

#### D. RDS Notes:

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to RDS sheet 1.11
- 3. A snorkel is need for dust collection above the breakdown mixers.
- 4. The wall finish around the Proctor Hammer (DS-07) needs to be able to tolerate wet splashes from the testing operation and be easy to clean.

#### E. Environmental Conditions

- 1. Temperature: 68-72deg F +/- 2degF
- 2. Humidity: 23-55%RH +/- 5%
- 3. Acoustic: NC-36
- 4. After Hours Temperature: Refer to MEP Narrative
- 5. Dust Collection (Soils) Snorkel

Program ID:	1.16	Room Name:	<b>Nuclear Stora</b>	ge		<b>Department:</b>
Quantity:	1	Area (SF):	242	Occupants:	1-2 (occasiona	District 6
Function:	Store nuclea	ar density gage	S.	_		
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
□ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	✓ 42in x8' min.	
☑ Other	<b>✓</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	☐ Door Size	
Note G.1, G.4	Note G.1	Note G.6	Note G.1	Note G.1	Note G.1	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	abinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	GE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	ur		☐ Other		☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)				Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	☐ Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Note G.3		☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☑ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1, E.4
<b>☑</b> 120V	Note B.1				Acoustics	Note E.3
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V				TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
☐ Other			☐ Toxic	✓ Radioactive	☐ Other	
			Other			
LIGHTING				IRE PROTECTION	VISU	<b>NL</b>
Ambient Light Leve	60-80	FC	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☑ In-Use Signage	Note G.5	□ сстv	
☐ Window Treatment	i		☑ Sprinkler Type	Wet Type	✓ Keyed Entry	Note G.2
☐ Natural Light			☑ Fire Extinguisher		✓ Access Contol	Note G.2

Program ID: 1.16 Room Name: Nuclear Storage Department:

#### **NOTES**

#### A. Adjacencies:

Direct connection to the Nuclear Workstation (1.17). No other access point is allowed.

#### **B.** Equipment:

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

C. Primary Areas: n/a

D. Test Description: n/a

#### E. Environmental Conditions

1. Temperature: 68-72deg F +/- 2degF

2. Humidity: 23-55%RH +/- 5%

3. Acoustic: NC-36

4. After Hours Temperature: Refer to Mechanical Narrative

#### F. General notes:

1. Nuclear gages are stored on the floor with their corresponding case and accessories.

#### G. RDS Notes:

- Final interior Finishes to be selected by the Design Team selected for this project.
   Partition, flooring, ceiling and door design features to meet IEMA nuclear equipment storage requirements.
   Walls Concrete or concrete filled CMUS. The D6 Nuclear gage storage and work room is a smaller version of the Central Bureau Nuclear Lab and would need to have the same partition, flooring, ceiling and door design features to meet IEMA nuclear equipment storage requirements.
- 2. Access must be controlled as the second of three gage access restrictions required. The third is a padlock on the gage itself.
- 3. Provide outlets 48" on center around the perimeter for charging gauges.
- 4. ESD flooring is NOT required.
- 5. Provide radioactive sign out side room per guidelines.
- 6. Depending on design it may require 16" block walls filled with high density concrete.

Program ID:	1.17	Room Name:	<b>Nuclear Work</b>	station		<b>Department:</b>
Quantity:	1	Area (SF):	121	Occupants:	1-2 (occasiona	District 6
Function:	Perform basic	nuclear equipm	ent checks.	_		•
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
□ Ероху	<b>☑</b> GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
✓ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☑ 42"x 8'H min.	
<b>☑</b> Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	<b>☑</b> Other	
Note G.1, G.3	Note G.1	Note G.1, G.4	Note G.1			
DUCTED LAB EQU	IPMENT		PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel	'		☐ Hand Wash		Fixed Casework	base cabinets
☐ Canopy	'		☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	GE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6-8 ACH		Other		☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)	1			☐ Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench			☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum	-	✓ Temperature	Note E.1, E.4
<b>☑</b> 120V	Note B.2		_		Acoustics	Note E.3
□ 208V	-		☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>✓</b> Data	✓ WiFi Router	✓ Comm.	Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	✓ Radioactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	<b>AL</b>
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			PPE		SECUR	ITY
☐ Occ Sensor			☑ In-Use Signage		□ сстv	
Window Treatmen	t		✓ Sprinkler Type	wet type	☐ Keyed Entry	
■ Natural Light			☑ Fire Extinguisher		Access Control	Note G.2

Program ID: 1.17 Room Name: Nuclear Workstation Department:

#### **NOTES**

#### A. Adjacencies:

Must be adjacent to the separate District 6 entrance and directly connected to Nuclear Storage (1.16).

#### **B.** Equipment:

1. No equipment is located in this area.

C. Primary Areas: N/a

D. Test Description: n/a

#### E. Environmental Conditions:

1. Temperature: 68-72deg F +/- 2degF

2. Humidity: 23-55%RH +/- 5%

3. Acoustic: NC-36

4. After Hours Temperature: Refer to MEP Narrative

#### F. General Notes: None

#### G. RDS Notes:

- Final interior Finishes to be selected by the Design Team selected for this project.
   Partition, flooring, ceiling and door design features to meet IEMA nuclear equipment storage requirements.
   Walls Concrete or concrete filled CMUS. The D6 Nuclear gage storage and work room is a smaller version of the Central Bureau Nuclear Lab and would need to have the same partition, flooring, ceiling and door design features to meet IEMA nuclear equipment storage requirements.
- 2. Access control is required as the first of the three gage access restrictions required. Refer to Architectural narratives.
- 3. ESD flooring is NOT required. District 6 does not perform maintenance of gage electronics.
- 4. Depending on design it may require 16" block walls filled with high density concrete.

#### H. Workflow:

Nuclear Gages will be delivered and picked up at the separate District 6 entrance and immediately taken directly to the nuclear workstation (1.17) and nuclear storage (1.16)

Program ID:	1.18	Room Name:	Storage			Department:
Quantity:	1	Area (SF):	1452	Occupants:		District 6
Function:	Storage of sa	amples and equip	ment for the Dist	rict 6		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	Note C.4
Note C.1	Note C.1	Note C.1	Note C.1	Note C.1		Note C.4
<b>DUCTED LAB EQU</b>	IIPMENT		PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		☑ Tall Cabinets	
☑ Air Change Per Ho	our 6 AC	H	Other		✓ Tall Shelving	heavy duty
☐ Air Filtration (Supp	oly and/or Exhaust	·)			☐ Peg Board	
POWER AND DAT	Α		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			Nitrogen	-	☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air	·	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	Purified Water	-	☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		☐ Temperature	
<b>☑</b> 120V	convenience or	utlets	•		Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ WiFi Router	Comm.	Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			Toxic	☐ Radiactive	Other	
			Other			
LIGHTING			-	FIRE PROTECTION		AL
Ambient Light Leve	70-80 FC		☐ Safety Shower		☐ White Board	
Task Light			Eyewash		Monitor	
Zoned Lighting			Goggles	-	Projection	
☐ Dimmer			□ PPE		SECUR	RITY
Occ Sensor			In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type		Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Contol	Note C.3

Program ID:	1.18	Room Name: Storag	e	Department:
			•	- op a

#### **NOTES**

#### A. Adjacencies:

Access to/from an entrance to the Main Open Lab (1.11) and the Open HMA Lab (1.23), along with the shared loading dock and dumpsters. A direct connection to the Calibration / Repair room (1.25).

#### **B.** Equipment:

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. RDS Notes:

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to Open Lab 1.11
- 3. Access must be limited to D6 laboratory staff and other designated individuals. Refer to Narratives.
- 4. An overhead door access enabling forklift access is required in addition to standard door(s). Forklift access is required to facilitate deliveries of bulk supplies and the removal of pallets of obsolete stored samples ready for disposal.

### D. Materials that shall be stored in room:

- a. HMA samples where longer term storage is required following testing.
- b. Field testing equipment
- c. Testing supplies Sample containers, cylinder molds, etc.
- d. Extra testing equipment for replacing wear items aggregate sieves, molds, etc.
- e. Obsolete equipment waiting for pick-up & disposal

#### E. Environmental Conditions:

1. After Hours Temperature: Refer to MEP Narrative

Program ID:	1.23	Room Name:	Open HMA La	b		Department:
Quantity:	1	Area (SF):	1452	Occupants:	1-4	District 6
Function:	Asphalt Tes	- ting		_		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		☐ Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	☑ Other	✓ Other	<b>☑</b> Other	☑ Other	Note G.4, G.9
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
		LAB	ORATORY SER	VICES		
DUCTED LAB EQU	IIPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
☐ Snorkel			✓ Hand Wash		☑ Fixed Casework	base cabinets
<b>☑</b> Canopy	Note E.6		Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
<b>☑</b> Other	Note G.2		☐ Floor Drain		☐ Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 12 ACH		☑ Other	Note G.6, G.7	☑ Tall Shelving	
☐ Air Filtration (Supp	•	)			Peg Board	
POWER AND DAT	Α		LABORATO	RY SERVICES	Lockers	
☑ Island Bench	power		☐ Nitrogen		Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (		☑ Compressed air	hamburg wheel	SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	Purified Water	-	✓ Vibration Control	Note G.5
☐ Emergency		amburg wheel PC	☐ Vacuum		✓ Temperature	Note E.1, E.4
<b>☑</b> 120V	Note B.2		<b>-</b>		Acoustics	
<b>☑</b> 208V	Note B.2		☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ WiFi Router	Comm.	Acid/ Corrosive	Flammable	☐ Radioactivity	
✓ Other	Note G.3, G.8		Toxic	☐ Radioactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		Safety Shower		White Board	
Task Light			Eyewash		Monitor	
Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			PPE		SECUR	RITY
Occ Sensor			In-Use Signage		ССТУ	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.1	Keyed Entry	
■ Natural Light			✓ Fire Extinguisher	Note G.1	☐ Access Contol	

Program ID: 1.23 Room Name: Open HMA Lab Department:

#### **NOTES**

#### A. Adjacencies:

The Open HMA Lab includes the following zones: Hamburg Wheel (1.23.1), I-FIT (1.23.2), Specific Gravity (1.23.3), Mixture Prep (1.23.4), TSR (1.23.5), and Sample Staging (1.23.6). The Open HMA Lab entrance must be adjacent to the Open Lab sort/log area (1.11.5). The Hamburg Wheel area and I-FIT area must be adjacent to the HMA Isolation Room (1.14). The mixture prep area (1.23.4) must be adjacent to the Specific Gravity area (1.23.3) and HMA Extraction/Ignition Room (1.24). The Open HMA Lab must also have access to the Storage (1.18), shared loading dock, and dumpsters.

Sample staging (1.23.6) is adjacent to Mixture Prep Area (1.23.4) and Open Lab sort/log area (1.11.5)

#### **B.** Equipment:

- 1. Primary equipment for these areas:
- **1.23.1** Hamburg Wheel: Hamburg Wheel **1.23.2** I-FIT: IFIT w/ computer
- **1.23.3 Specific Gravity:** Specific Tank
- 1.23.4 Mixture Prep: Gyratory Compactors w/ Printer
  - a. Fume exhaust canopies is required over the splitting table, parts washer, and part of the HMA sample preparation area/surfaces User controlled.
- 1.23.5 TSR TSR Load Frame/digital indicator
- 1.23.6 Sample Staging
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.

#### C. Material Flow:

Samples enter from the open lab sort/log area (1.11.5) and are staged in the sample staging area (1.23.6). A majority of samples will go to the mixture prep area (1.23.4) and will then be distributed to other areas for additional testing. Following testing, samples will either be transferred to storage (1.18) or disposal in a dumpster.

#### D. Primary Area within open HMA Lab

#### 1.23.1 Hamburg Wheel Area-

Function: Hamburg Wheel Testing

1.23.2 I-FIT

Function: I-FIT Testing

1.23.3 Specific Gravity

Function: Bulk and Maximum Specific Gravity Determination

1.23.4 Mixture Prep

Function: Splitting samples into appropriate test sizes, preparing compacted specimens, and preparing mixtures.

1.23.5 TSR

Function: Performing Split Tensile Strength Testing and Visual Strip Ratings

1.23.6 Sample Staging

Function: Stage samples for testing.

Program ID: 1.23 Room Name: Open HMA Lab Department:

#### E. Environmental Conditions

- 1. Temperature: 68-72deg F +/- 2degF
- 2. Humidity: 23-55%RH +/- 5%
- 3. Acoustic: NC-36
- 4. After Hours Temperature: Refer to MEP Narrative
- 5. Dust Collection (silica)-None
- 6. Fume Exhaust: Mixture Prep (1.23.4) -Provide canopies over the HMA sample preparation area/surfaces.

#### F. General Notes:

- 1. Provide eyewash at all sinks
- 2. No natural gas or spatiality gases are re

#### G. RDS Notes:

- 1. Refer to RDS 1.11 Open lab.
- 2. Vented equipment such as vented ovens, refer to the equipment matrix
- 3. Phone required in Open HMA Lab
- 4. Single door for access to 1.11 Open Lab. Double door for access to 1.18 Storage and shared loading dock.
- 5. Vibration control using concrete blocks/pedestals for mounting equipment.
- 6. Floor sink(s) required to facilitate drainage of specific gravity tanks. A hose connection is needed to facilitate filling specific gravity tanks.
- 7. Floor Sink with sediment trap needed below Hamburg Wheel Cleanout drain, as well as a cold water hose connection is needed.
- 8. IT/COMM cable ports requirements for equipment/computers in the following spaces: 1.23.1 Hamburg requires two, 1.23.6 Staging requires one, 1.23.2 I-FIT requires one, 1.23.4 Mix Prep requires two
- 9. Double door for access to 1.18 Storage and shared loading dock. door size 2-3'-6" wide door x 8'H/
- 10. Equipment that generates a lot of noise and dust shall be located In the HMA isolation room, refer to RDS 1.14.

Program ID:	1.24	Room Name:	<b>HMA Extraction</b>	on/Ignition Ro	om	Department:
Quantity:	1	Area (SF):	302.5	Occupants:	1-2	District 6
Function:	Perform Auto	_ matic and Reflux	Extraction and Ig	_ gnition Oven Burns	5.	-
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	
<b>☑</b> Other	✓ Other	☑ Other	<b>☑</b> Other	✓ Other	☐ Other	
Note C.1	Note C.1	Note C.1	Note C.1	Note C.1		
		LAB	ORATORY SER	VICES		
DUCTED LAB EQU	IIPMENT		PLUMBING	SERVICES	CASEW	ORK
✓ Fume Hood	reflux extractio	n, Note B.3 & D.2	Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note G.4		☐ Hand Wash		▼ Fixed Casework	base cab.
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	abinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	\GE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 12 ACH		☐ Other		☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust	)			Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	☐ Lockers	
✓ Island Bench	power		☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (		☐ Compressed air	-	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	Purified Water	-	☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum	-	✓ Temperature	Note E.1,E.4
☑ 120V	Note B.2				☐ Acoustics	
☑ 208V	Note B.2		☐ Other/Specialty	Note B.2, D.2	☐ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	✓ WiFi Router	✓ Comm.	Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
✓ Other	Note D.4		Toxic	☐ Radioactive	Other	
	Note Bill		☑ Other	Note D.3		
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve			☑ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE		SECUR	ITY
☐ Occ Sensor			☐ In-Use Signage		□ сстv	
Window Treatmen	t		Sprinkler Type	Note D.1	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	Note D.1	☐ Access Control	

Program ID: 1.24 Room Name: HMA Extraction/Ignition Room Department:

#### **NOTES**

#### A. Adjacencies:

HMA Mixture Prep Area (1.23.4) and Open Lab Aggregate Testing Area (1.11.1)

#### **B.** Equipment:

- 1. Refer to equipment matrix for list of equipment.
- 2. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.
- 3. Fume hood requirements:
  - a. Min. Interior Working Height 34", Min. Length 60", Min. Depth 22", Min. Sash Opening Height 28"
  - b. No specialty gasses or natural gases required.
    - c. Standard 120V 20A Duplex on the interior sides or back.
    - d. Cold water and drain are required.
    - e. Internal lighting

#### C. General Notes:

#### D. Room Data Notes:

- 1. Refer to RDS 1.23 Open HMA lab.
- 2. Water connection is also required for chiller.
- 3. Hazardous materials (trichloroethylene) will be used and stored in this area.
- 4. Two IT/COMM cable ports required for equipment/computers.

#### E. Environmental Conditions:

- 1. Temperature: 68-72deg F +/- 2degF
- 2. Humidity: 23-55%RH +/- 5%
- 3. After Hours Temperature: Refer to Mechanical Narrative
- 4. Dust Collection (Ignition Oven Ash) Provide Snorkel over workstations with ovens.

Program ID:	1.25	Room Name:	Department:			
Quantity:	1	Area (SF):	242	Occupants:	2	District 6
<b>Function:</b>	Calibrating	and maintaining	of equipment			
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	6'W x8'H
☑ Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	<b>✓</b> Other	✓ Door Size	
Note C.1	Note C.1	Note C.1	Note C.1	Note C.1		
			DI IIMBANA	S CERVICES	64.65.	
DUCTED LAB EQU	ITPMENT		✓ Lab Sink	SERVICES	CASEW	URK
☐ Fume Hood			· <u> </u>		Mobile Casework	
Snorkel			Hand Wash		☑ Fixed Casework	Base cabinets
Canopy	- 1: .		Cup Sink		Casework Material	Steel
☐ Biological Safety (	Labinet		Deep Sink		Counter Material	
Other			Floor Drain		☑ Other	Note C.3
HVAC	N. I. G.		☐ Scullery Sink		STOR	AGE
✓ Pressurization	Note C.1		Floor Sink		Tall Cabinets	
☑ Air Change Per Ho		. N C.1	Other		☐ Tall Shelving	Note C.4
✓ Air Filtration (Supp	•	note C.1	LABORATOR	OV CERVICES	Peg Board	
POWER AND DAT	A			RY SERVICES	Lockers	
☐ Island Bench	Durales @ 24"	0.6	□ Nitrogen		Mobile Cabinets	ITDEMENTS
✓ Perimeter Bench	Duplex @ 24"		☑ Compressed air		SPECIAL REQU	JIKEMENIS
✓ Ceiling Mounted	☐ Floor Mounte	·u	Purified Water		Vibration Control	N
☐ Emergency	UPS		☐ Vacuum		☑ Temperature	Note C.1
☑ 120V	Note B.1				Acoustics	Note C.1
□ 208V			Other/Specialty	TEDIAL STORAGE	☑ Humidity	Note C.1
☐ 480V	A MIE Dante	П с		TERIAL STORAGE		
☑ Data	✓ WiFi Router	Comm.	Acid/ Corrosive	Flammable	Radioactivity	
Other			Other	Radioactive	Other	
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VISU	AL
Ambient Light Leve	70-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Note C.1	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	Note C.1	✓ Access Control	Note C.5

Program ID: 1.25 Room Name: Calibration/Repair Room Department:

#### **NOTES**

A. Adjacencies: The Calibration / Repair room must have a direct connection with the Repair Isolation Room (1.13) and Storage (1.18). Access to the separate D6 Entrance may be through the Open Lab (1.11).

#### **B.** Equipment:

The equipment maintained in this area is primarily field test equipment utilized by inspectors on construction sites. Should be near storage room containing field testing equipment.

- 1. Refer to the equipment matrix for equipment requirements such as power, water, gas etc.
- 2 \_Equipment that generates a lot of noise shall be located in the Repair isolation room, refer to RDS 1.13.

#### C. RDS Notes:

- 1. Refer to RDS 1.11 Open lab.
- 2. Refer to the equipment matrix for additional power, water, gas requirements etc.
- 3. Heavy duty cabinets, base cabinets need to be wide enough to store large equipment, and counter material should be workbench type material acceptable to support hammering, drilling, and other workshop type activities.
- 4. No shelving is required. Equipment is stored in Storage (1.18) before and after calibration/repair.
- 5. Access Control is needed because of direct connection with Storage (1.18). Refer to security Narrative.

#### D. Material Flow:

Field test equipment will be picked-up and dropped off at the Separate D6 Entrance and staged in the sort/log area (1.11.3) of the Open Lab before being moved to D6 Storage (1.18). Equipment will be transferred into and out of the Calibration / Repair Room (1.25) directly from storage (1.18).

Program ID:	1.19	Room Name:	om Name: Standard Offices			
Quantity:	1	Area (SF):	120 SF	Occupants:	1	D6
Function:		•		-		-
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t□ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
Fume Hood			Lab Sink		Mobile Casework	
Snorkel			Hand Wash		Fixed Casework	
Canopy			Cup Sink		Casework Materia	-
☐ Biological Safety	 Cabinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			☐ Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		☐ Temperature	
<b>☑</b> 120V					✓ Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	Safety Shower		☐ White Board	
✓ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	,
☑ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
Window Treatmen	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter spa	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID:	1.19	Room Name: Standard Offices	Department:
i iogiain ib.	<b>+.+</b>	Room Name: Standard Offices	Department.

### **NOTES**

- A. Adjacencies:1. Locate D6 standard office (1.19) adjacent to D6 workstations (1.20).
- 2. Group D6 standard office (1.19) with D6 conference (1.21) and D6 break room (1.22).

B. <u>General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	1.2	Room Name:	Small Worksta	ition		Department:
Quantity:	6	Area (SF):	216 SF	Occupants:	5	D6
Function:		•		-		
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
☐ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□сми		☑ Height- 4"	☐ 48in	
✓ Other	Other	Other	Other	Other	☐ Door Size	
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety	 Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC	1		Scullery Sink		STORA	GE
☐ Pressurization	1	· · · · · · · · · · · · · · · · · · ·	☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other		_	Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
✓ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



**Room Name: Small Workstation** Program ID: 1.2 **Department:** 

### **NOTES**

- A. Adjacencies:1. Locate D6 workstations (1.20) adjacent to D6 standard office (1.19).
- 2. Group D6 workstations (1.20) with D6 conference (1.21) and D6 break room (1.22).

- B. <u>General Notes:</u>
  1. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.
- 2. 1 workstation to be utilized as a copy area.



Program ID:	1.21	Room Name:	Small Confere	nce Room		Department:
Quantity:	1	Area (SF):	165 SF	Occupants:		D6
Function:		•		-		-
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		✓ Height- 4"	☐ 48in	
☑ Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Materia	
☐ Biological Safety	 Cabinet		☐ Deep Sink		. Counter Material	
Other	,		☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	1		☐ Floor Sink		Tall Cabinets	1
☐ Air Change Per H	our		Other		□Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					✓ Acoustics	
□ 208V			Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				IRE PROTECTION	VISU	AL
	See Lighting B.0	D.D.	☐ Safety Shower		✓ White Board	
☐ Task Light			☐ Eyewash		✓ Monitor	
☐ Zoned Lighting			Goggles		Projection	1
<b>✓</b> Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		Keyed Entry	
✓ Natural Light	At perimeter spa	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID: 1.21 **Room Name: Small Conference Room Department:** 

### **NOTES**

### A. Adjacencies:

1. Group D6 conference (1.21) with D6 standard office (1.19), D6 workstations (1.20) and D6 break room (1.22).

### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.

C. Basic A/V Standards: (Verify/coordinate with Using Agency & DoIT for Conference Room Size & Configuration)

1. Assume CISCO All-In-One system, requiring:

Power for monitors in recessed chief box preferred, 65" AFF to CL.

Monitors: (75" single) (55" dual) Data is it routed to an IDF, back to switch.

Ceiling microphones/speakers.

2. System control:

Tuck Navigation panel at table location.

1.25" cable from table to wall. HDMI at table shares conduit.

(2)2 gang wall outlets at 48" for both HDMI and touch panel.

Network close to HDMI jack.

3. Include power at floor below table locations.



Program ID:	1.22	Room Name:	Small Breakro	om		Department:
Quantity:	1	Area (SF):	150 SF	Occupants:		D6
Function:		•		_		-
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b>☑</b> GWB	<b>□</b> Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>√</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		☐ Vision Panel	
✓ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink	-	☑ Casework Materia	Plastic Laminate
☐ Biological Safety	Cabinet		☐ Deep Sink		✓ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	'	-	☐ Floor Sink		☐ Tall Cabinets	1
☐ Air Change Per H	lour		☑ Other		☐ Tall Shelving	
☐ Air Filtration (Sup		st)	oute.	ADA Sink, Faucet	Peg Board	-
POWER AND DATA			LABORATOR	RY SERVICES	✓ Lockers	5 Qty
☐ Island Bench	,	_	□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
<b>√</b> 120V					Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	1
Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	AT perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID:	1 22	Room Name: Small Breakroom	Department:
Piogrami ID.	1.22	Room Name. Sinan Breakfoom	Depai tillelit.

### **NOTES**

<u>A. Adjacencies:</u>
1. Group D6 break room (1.22) with D6 conference (1.21), D6 standard office (1.19) and D6 workstations (1.20).

### B. General Notes:

- 1. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.
  2. Include provisions for Refrigerator/Freezer, Microwave.
- 3. Include Recycling and Trash collection provisions.
- 4. Provide 5 standard lockers for D6 staff. Can be in breakroom or other location near D6 Lab Offices/Workstations.



Program ID:	2.11	Room Name:	Open Lab			Department:
Quantity:	1	Area (SF):	847	Occupancy:	6	- Traffic Instr.
Function:		entation provides d		nd support for traffic		-
		IN	ITERIOR FINIS	SHES		
FLOORING  Epoxy	CEILINGS  ☑ GWB	PARTITIONS  ☑ GWB	□ Ероху	WALL BASE  ☑ Integral Cove ☐ Cove	DOOR  ☑ Hollow Metal ☐ Wood	grounded/ FRP
<ul><li>☑ Sheet Flooring</li><li>☐ Rubber Flooring</li><li>☐ Sealed Concrete</li></ul>	☐ ACT ☐ Open ☐ Unistrut	<ul><li>✓ Mold/Moisture</li><li>✓ Impact Resistant</li><li>✓ CMU</li></ul>	☑ Acrylic PNT ☐ FRP	☑ Cove	✓ Glass ✓ Cased opening	
Other  Note G.1 & G.3	Other Note G.1	Other Note G. 1	Other  Note G.1	Other  Note G.1	☑ Door Size	6' x 8'
DUCTED LAB EQU	ITOMENIT	LAB	ORATORY SERVING SERVING		CASEW	ODK.
☐ Fume Hood ☐ Snorkel	for soldering		☐ Lab Sink ☐ Hand Wash		✓ Mobile Casework ✓ Fixed Casework	wall & base cab.
✓ Canopy  ☐ Biological Safety C	@ entire rework	< station	☐ Cup Sink ☑ Deep Sink		☑ Casework Material ☑ Counter Material	Polypropylene Butcher Block
Other HVAC			☐ Floor Drain ☐ Scullery Sink		Other STORA	AGE
<ul><li>☑ Pressurization</li><li>☑ Air Change Per Ho</li><li>☑ Air Filtration (Supplemental Supplemental Sup</li></ul>			☐ Floor Sink ☐ Other		☐ Tall Cabinets ☐ Tall Shelving ☐ Peg Board	
POWER AND DAT	-		LABORATORY SE	RVICES	Lockers	
☐ Island Bench ☐ Perimeter Bench	Duplex @ 24" 0		☐ Nitrogen ☐ Compressed air		✓ Mobile Cabinets  SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted☐ Emergency☐	☐ Floor Mounted ☐ UPS Not Note B.2	te G.4	Purified Water		☐ Vibration Control☐ Temperature☐	
☑ 120V □ 208V □ 480V	Note B.2		Other/Specialty  HAZARDOUS MAT	FRIAL STORAGE	✓ Acoustics ✓ Humidity ✓ Sound Isolation	
☑ 480V ☑ Data ☑ Other	☑ WiFi Router	Comm.	☐ Acid/ Corrosive☐ Toxic	☐ Flammable ☐ Radiactive	Radioactivity  Other	Everything ESD
LIGHTING	Note G.4		Other	FIRE PROTECTION	VISU	& Grounded
Ambient Light Leve	e 60-80 fc		☐ Safety Shower		☐ White Board	~-
✓ Task Light  ☐ Zoned Lighting			☐ Eyewash ☐ Goggles ☐ PPE	for soldering work	☐ Monitor☐ Projection	
<ul><li>□ Dimmer</li><li>□ Occ Sensor</li><li>□ Window Treatmen</li></ul>			☐ In-Use Signage ☐ Sprinkler Type	Wet pipe	SECUR  CCTV  Keyed Entry	Note G.2
✓ Natural Light			✓ Fire Extinguisher	cc pipe	☐ Access Contol	

Program ID:	2.11	Room Name: Open Lab	Department:	
Quantity:	1	Area (SF): 847	Occupancy: 6	Traffic Instr.
		NOTES		

<u>A. Adjacencies</u>: Directly adjacent to Loading Dock, Storage, and Metals and Miscellaneous Products - Machine Shop; Truck Storage and Offices have relationship to the Traffic Instrumentation Open Lab.

Open lab must have access to the roof to service Antenna.

Primary spaces within the open lab: Packaging/Shipping Area & (6) Workstation Areas (w/ soldering/ rework station for circuits, station for magnetic counter, station for service permanent counters, and cataloging).

### B. Equipment List:

- 1. Refer to the equipment matrix for power, water, gas requirements etc.
- 2. Equipment for the areas within the open lab.

### 2.11.1 Packaging:

workbench/packing-prep (132"W x 30"D x 41"H), packing overhead bin (48"W x 48"D x 48"H).

### 2.11.2 Soldering & 2.11.3 Rework:

- a. Soldering/rework, magnetic counter: microscope,
- b. workbench/ATR test and calibrate (240"W x 30"D x 35"H),
- c. workbench/solder-rework PCB's (132"W x 30"D x 35"H)-: Provide fume extractor at this station
- d. workbench/testing (60"W x 30"D x 41"H).
- **2.11.4 Permanent Counters:** Soldering/rework, magnetic counter, microscope, workbench/ATR test and calibrate (240"W x 30"D x 35"H), workbench/solder-rework PCB's (132"W x 30"D x 35"H), fume extractor, workbench/testing (60"W x 30"D x 41"H).

### 2.11.5 Cataloging:

a. Provide the heavy duty shelves

### 2.11.6 & 2.11.7 Future:

a. Provide the heavy duty shelves

### 3. 2.13 Roof Access to Antenna

Antenna information shall be provided by owner.

Program ID:	2.11	Room Name: Open Lab		Department:
Quantity:	1	Area (SF): 847	Occupancy: 6	Traffic Instr.

### F. General Notes:

For primary areas within the open lab.

### 1. 2.11.1 Packaging:

- a. Provide Floor space for large floor mounted items.
- b. Provide base cabinets and upper cabinets
- c. Provide tall shelving for storage

### 2. **2.11.2 Soldering & 2.11.3 Rework:**

- a. Provide canopy along the rework workstation
- b. Provide base cabinets and upper cabinets.

### 3. 2.11.4 Permanent Counters:

a Provide base cabinets and upper cabinets

### 4. **2.11.5** Cataloging:

- a. Half of the materials come in the trucks are on pallets, go to the loading dock/garage/storage next to District 6.
- b. Items are storage or unpacked and distributed to the labs. The other half of the materials coming in go directly to the lab and are logged and distributed.
- c. Provide clearance for a Pallet jack.
- d. Provide the heavy duty shelves

### 5. **2.11.6 & 2.11.7 Future**:

a. Provide base cabinets and upper cabinets

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to architectural narrative.
- 3. Provide Electrostatic dissipative material(ESD) flooring.
- 4. UPS required only for specific equipment . Refer to equipment matrix.
- 5. Traffic Instrumentation has an Antenna that shall be located on the roof.

Program ID:	2.12	Room Name:	Storage			Department:
Quantity:	1	Area (SF):	605	Occupancy:	6	Traffic Instr.
Function:	Storage of palle	ets and equipment				
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
□ Ероху	<b>☑</b> GWB	<b>☑</b> GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	Cased Opening	
<b>☑</b> Other	<b>✓</b> Other	✓ Other	☑ Other	✓ Other	✓ Door Size	6'W x 8'H
Note G.1, D.1		Note G.1	Note G.1	Note G.1	Note G.1	
		LAB	ORATORY SER	VICES		
DUCTED LAB EQU	IIPMENT		PLUMBING SERVI	CES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel	-		□ Hand Wash		Fixed Casework	
☐ Canopy	-		Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	\GE
✓ Pressurization	Negative		☐ Floor Sink		☑ Tall Cabinets	
☑ Air Change Per Ho	our 6-8 ACH		☐ Other		✓ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)				☐ Peg Board	
POWER AND DAT	Α		LABORATORY SEI	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	I	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		☑ Temperature	See RDS 2.11
<b>☑</b> 120V	Note B.2				✓ Acoustics	See RDS 2.11
□ 208V			☐ Other/Specialty		✓ Humidity	See RDS 2.11
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	<b>☑</b> Other	Everything ESD
			Other			& Grounded
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 fc		☐ Safety Shower		☐ White Board	
☐ Task Light			Eyewash		☐ Monitor	
Zoned Lighting			Goggles		☐ Projection	
Dimmer			□ PPE		SECUR	ITY
☐ Occ Sensor			☐ In-Use Signage		□ сст∨	
Window Treatment	t		Sprinkler Type	wet pipe	✓ Keyed Entry	Note D.2
☐ Natural Light			☑ Fire Extinguisher	,	☐ Access Control	

Program ID:2.12Room Name:StorageDepartment:Quantity:1Area (SF):605Occupancy:6Traffic Instr.

### **NOTES**

<u>A. Adjacencies:</u> Directly adjacent to Loading Dock and Traffic Instrumentation - Open Lab. Truck Storage and Packaging have relationship with Traffic Instrumentation - Storage.

### B. Equipment:

Tool/part cabinet (17"W x 30"D x 60"H), parts storage (63"W x 30"D), 7 Storage Shelving (96"W x 20"D x 75"H). Refer to equipment matrix for additional equipment.

2. Refer to the equipment matrix for power, water, gas requirements etc.

### C. General Notes:

- 1. Half of the materials come in the trucks are on pallets, go to the loading dock/garage/storage next to District
- 6. Items are storage or unpacked and distributed to the labs. The other half of the materials coming in go directly to the lab and are logged and distributed.

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to architectural narrative.
- 3. Provide Electrostatic dissipative material(ESD) flooring.

Program ID:	2.21	Room Name:	Metals Lab			Department:
Quantity:	1	Area (SF):	1452	Occupants:	6 to 8	Metals&
Function:	tests over 350	steel, plastic, fabric	c, and other materia	ls; see test types in	notes	- Misc. Products Lab
		II	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	<b>✓</b> Cove	☐ Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
<b>☑</b> Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	Note G.2
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	☐ Other	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEV	VORK
☐ Fume Hood			✓ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☑ Fixed Casework	base cabs.
☐ Canopy			Cup Sink		☑ Casework Material	Wood
☐ Biological Safety C	Cabinet		☐ Deep Sink		☑ Counter Material	Stainless Steel
<b>✓</b> Other	See Note G.1		☐ Floor Drain		☑ Other	Note G.1, G.4
HVAC			☐ Scullery Sink		STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH min	n.	☑ Other	Note C 1	_ ☐ Tall Shelving	
☐ Air Filtration (Supply and/or Exhaust)		-	Note G.1	☐ Peg Board		
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	duplex outlets	@ 24" o.c.	☑ Compressed air	120 PSI, See G.5	SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☑ Vibration Control	Note G.7
☐ Emergency	☐ UPS		☐ Vacuum		☑ Temperature	Note E.1
☑ 120V	Note G.3		_		☐ Acoustics	
<b>☑</b> 208V			☑ Other/Specialty	Note G.1	✓ Humidity	Note E.2
✓ 480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	Note G.7
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
<b>☑</b> Other	See RDS 2.21.	2 221 /	☐ Toxic	☐ Radioactive	✓ Other	Note G.6
	See RDS 2.21.	2, 2.21.4	Other			Note G.o
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VISU	JAL
Ambient Light Leve	60-80 fc		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			☑ Goggles		☐ Projection	
Dimmer			☐ PPE		SECU	RITY
☐ Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		✓ Sprinkler Type	Wet Pipe	☐ Keyed Entry	
☑ Natural Light			☑ Fire Extinguisher	ABC	☐ Access Control	
			_		☑ Other	Note G.7

Program ID: 2.21 Room Name: Metals Lab Department:

#### **NOTES**

A. Adjacencies: Locate lab along exterior of the building; Directly adjacent to Misc. products, Machine Shop, and Loading Dock. In close proximity to the Offices.

B. Equipment: Refer to the RDS for each area for equipment information.

C. Processes: Refer to the RDS for each area.

D. Primary Areas: Metals Lab has 3 zones:

2.21.2 Universal Testing Machine Area

2.21.4 Sort and Log 2.21.5 Failed Storage

#### E. Environmental Conditions:

1. Temperature: 68-74F +/-2F 2. Humidity: 50% RH+/- 5%

### F. General Notes:

- 1. Refer to RDS for each area.
- 2. Ceilings shall be 18'-0" clear from finished floor
- 3. The lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room unless noted otherwise.

### G. Room data Sheet (RDS) Notes:

- 1. Interior Finishes provided is the preferred option, final interior finishes shall be selected by the design team.
- 2. Roll-up door, 8'x16' to the central corridor. Room requires a door large enough to transport large equipment in and out of building. Gantry crane located between roll-up door and equipment.
- 3. Provide 120V outlet around perimeter unless noted otherwise.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop.
- 5. Provide compressed air at all areas Universal Testing Machine Area, Sort and Log, and Failed Storage) with regulators
- 6. Refer to mechanical narrative.
- 7. Refer to RDS for each area.
- 8. Refer to the Security narrative.

Program ID:	2.21.2	Room Name:	Metals Lab-U	niversal Testin	g Machine Area	Department:
Quantity:	1	Area (SF):	726	Occupants:	6 to 8	Metals& Misc.
Function:	Tests over 350	steel, plastic, fabri	c, and other materia	ls; See test types in	notes	<b>Products Lab</b>
		I	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	<b>✓</b> Other	✓ Other	<b>☑</b> Other	☑ Other	☑ Door Size	Note G.3
Note G.1	Note G.1, F.6	Note G.1	Note G.1	Note G.1	<b>✓</b> Other	Note G.8
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASE	WORK
☐ Fume Hood			✓ Lab Sink		☐ Mobile Casework	
Snorkel			✓ Hand Wash		✓ Fixed Casework	See RDS 2.21
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		✓ Counter Material	
Other			☐ Floor Drain		<b>☑</b> Other	Note G.5
HVAC			☐ Scullery Sink		STOR	RAGE
Pressurization	See RDS 2	2.21	☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our See RDS 2	2.21	Other		✓ Tall Shelving	Note G.4
☐ Air Filtration (Supp	oly and/or Exhaust)	)	-		Peg Board	
<b>POWER AND DAT</b>	A		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			✓ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	See RDS 2.21		☑ Compressed air	See RDS 2.21	SPECIAL REC	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	b	☐ Purified Water		☑ Vibration Control	Note G.6
☐ Emergency	☐ UPS		✓ Vacuum		✓ Temperature	Note E.1
☑ 120V	See RDS 2.21		-		☐ Acoustics	
<b>☑</b> 208V	Note G.2		☐ Other/Specialty		✓ Humidity	Note E.1
<b>✓</b> 480V	Note G.2		HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Note G.6
☐ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	Other	
			<b>☑</b> Other	Note G.5		
LIGHTING				FIRE PROTECTION	VIS	UAL
Ambient Light Level:			☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			Google		☐ Projection	
☐ Dimmer			□ PPE -		SECU	RITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		☐ Access Control	
<b>☑</b> Other	See RDS 2.21		☑ Other	See RDS 2.21	<b>☑</b> Other	See RDS 2.21

Program ID: 2.21.2 Room Name: Metals Lab-Universal Testing Machine Area Department:

### **NOTES**

A. Adjacencies: Refer to RDS sheet 2.21.

#### **B. Primary Equipment:**

1. 3 UTMs (universal testing machine), 600K Universal Testing Machine Qty-1, additional NTPEP testing machine, gantry crane/hoist supported by building structure, electronic fork lift. For additional equipment, refer to the equipment matrix.

<u>C. Processes</u>: conducts over 3000 tests for the National Transportation Products Evaluation Program (NTPEP) as an AASHTO-accredited testing facility for various steel products. These tests are part of nearly 100 annual audits for reinforcement bar, welded wire reinforcement, cold-drawn wire, and seven-wire strand producers who wish to be NTPEP-certified.

<u>D. Test Types</u>: Yield/tensile testing, impact testing, galvanization thickness readings, compression and deflection testing, hardness and durometer testing, and heat resistance/aging testing.

### E. Environmental Conditions:

1. Refer to RDS 2.21.

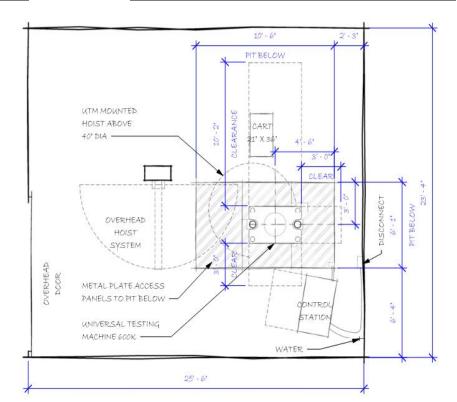
### F. General Notes:

- 1. Presently, IDOT have four Universal Testing Machines (UTM). The 600K Universal Testing Machine(OFCI), however it is the only one that requires a pit. Provide a 5' deep pit, refer to the sketch provided in the equipment matrix.
- 2. The 600K Universal testing Machine also has a Hoist that is attached direct to it.
- 3. Provide a new portable Hoist.
- 4. Provide immediate access to Metal Scrap Dumpster.
- 5. More countertop and storage needed near the UTM's equipment for material to be prepped before testing.
- 6. Ceiling height shall be 16' AFF

### G. Room Data Sheet (RDS) Notes

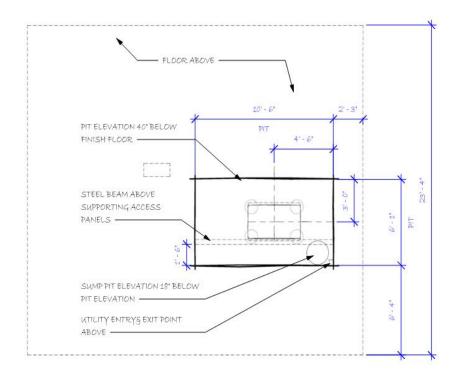
- 1. Refer to RDS Sheet 2.21 for interior finishes.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide a Roll-up door system 8'wide x 16'H. Room requires a door large enough to transport large equipment in and out of building.
- 4. Provide heavy duty shelving units to store samples that are ready to be tested; shelves 36" deep.
- 5. Presently, five 5 gallons of fuel is stored in a portion of the pit under the 600K universal Testing Machine.
- 6. Isolated slab needed in this area to ensure that sound does not transfer to the rest of building when the

## Program ID: 2.21.2 Room Name: Metals Lab-Universal Testing Machine Area Department:



UNIVERSAL TESTING

MACHINE
PLAN AT OPERATING LEVEL



UNIVERSAL TESTING
MACHINE
PLAN AT EQUIPMENT PIT
LEVEL

Program ID:	2.21.4	<b>Room Name:</b>	Metals Lab - 9	Department:		
Quantity:	1	Area (SF):	242	Occupants:	6 to 8 max.	Metals& Misc.
<b>Function:</b>	Samples rece	eived, logged and sor	ted	_		Products Lab
		]	NTERIOR FIN	ISHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DC	OOR
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		☐ Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	☐ Door Size	
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	✓ Other	See RDS 2.21
DUCTED LAB EQUI	[PMENT		PLUMBING	G SERVICES	CASE	WORK
☐ Fume Hood			☑ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		✓ Fixed Casework	base cabs.
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		<b>☑</b> Other	Note G.3, G.2
HVAC			☐ Scullery Sink		STO	RAGE
✓ Pressurization	See RDS 2.	.21	☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our See RD	S 2.21	Other		☑ Tall Shelving	Note G.4
☐ Air Filtration (Sup	ply and/or Exhau	st)	-		☐ Peg Board	
POWER AND DATA	1		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☑ Compressed air	See RDS 2.21	SPECIAL RE	QUIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ted	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		☐ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V			•		☐ Acoustics	
☐ 208V			☐ Other/Specialty		✓ Humidity	Note E.1
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☐ Data	☐ Wi-Fi Route	r 🔲 Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
✓ Other		hio no	☐ Toxic	☐ Radioactive	Other	
	computer sta	tions	☐ Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VIS	GUAL
Ambient Light Leve	9		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			☐ PPE		SECU	JRITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
✓ Natural Light			Fire Extinguisher		☐ Access Control	
✓ Other	See RDS 2.2	1	- ☑ Other	See RDS 2.21	<b>☑</b> Other	See RDS 2.21

Program ID: 2.21.4 Room Name: Metals Lab - Sort/Log Department:

### **NOTES**

A. Adjacencies: Located near the Metals Lab.

B. Equipment: Gantry crane/hoist, electronic forklift.

C. Processes: N/A

D. Test Types: N/A

### E. Environmental conditions:

1. Refer to RDS 2.21

### F. General Notes:

1. Refer to RDS 2.21.

### G. Room data Sheet (RDS) Notes

- 1. Refer to RDS Sheet 2.21 for interior finishes.
- 2. Provide heavy duty shelving units to store samples that are ready to be tested; shelves 36" deep.
- 3. Provide new worktables. This casework need to withstand significant impact, ensure that the selected material is better and tougher than the existing.

Program ID:	2.21.5	Room Name:	Metals Lab - F	ailed Storage		Department:
Quantity:	1	Area (SF):	484	Occupants:	1 to 2	Metals& Misc.
Function:	tests over 350	steel, plastic, fabric	, and other materia	ls; see test types in	notes	Products Lab
		I	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
<b>□</b> Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		☐ Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ 48in	
✓ Other	☑ Other	✓ Other	<b>☑</b> Other	✓ Other	☐ Door Size	
Refer note G.1	Note G.1	Refer note G.1	Refer note G.1	Refer note G.1		
DUCTED LAB EQU	JIPMENT		PLUMBING	SERVICES	CASE	WORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		✓ Fixed Casework	base cabs.
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	RAGE
✓ Pressurization	See RD:	S 2.21	☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our See RD:	S 2.21	☐ Other		- ☑ Tall Shelving	Note G.3
☐ Air Filtration (Sup	ply and/or Exhaus	t)	-		☐ Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☑ Compressed air	See RDS 2.21	SPECIAL REC	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	- ☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		■ Temperature	Note E.1
☑ 120V	Note G.2		-		☐ Acoustics	
<b>☑</b> 208V	Note G.2		☐ Other/Specialty		✓ Humidity	Note E.1
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☐ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
<b>☑</b> Other	C DDC 2 2	14	☐ Toxic	☐ Radioactive	Other	6
	See RDS 2.2	11	☐ Other			See RDS 2.21
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VIS	JAL
Ambient Light Leve	e		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting	-		Goggles		Projection	
☐ Dimmer	-		☐ PPE		SECU	RITY
Occ Sensor			☐ In-Use Signage	-	□ сст∨	-
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	-
☐ Natural Light	1		Fire Extinguisher		☐ Access Control	-
<b>☑</b> Other	See RDS 2.21		<b>☑</b> Other	See RDS 2.21	Other	

Program ID: 2.21.5 Room Name: Metals Lab - Failed Storage Department:

### **NOTES**

A. Adjacencies: Directly Adjacent to Machine Shop .

B. Equipment: For additional equipment, refer to the equipment matrix for a list .

C. Process Types: N/A

D. Primary Areas: N/A

### E. Environmental conditions:

1. Refer to RDS 2.21

### F. General Notes:

1. Refer to RDS 2.21.

- 1. Refer to RDS Sheet 2.21 for interior finishes.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide backup sample storage area for the extra metal samples, used only if test fail and are required to be redone. Users are requested doubling the existing storage area.

Program ID:	2.22	Room Name:	Miscellaneous	Products Lab		Department:
Quantity:	1	Area (SF):	484	Occupants:	1 to 2	Metals& Misc.
Function:						Products I ah
		II	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR .
□ Ероху	☐ GWB	☐ GWB	<b>✓</b> Epoxy	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	Cove	Wood	
☐ Rubber Flooring	✓ Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☐ Height- 4"	☐ Cased Opening	Roll-up door &
✓ Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☑ Door Size	larger than 6'x8'
Note F.1	Note D.3, F.1	Note F.1	Note E.1	Note E.1	door off central cor	ridor
DUCTED LAB EQU	JIPMENT		PLUMBING	SERVICES	CASEV	VORK
☐ Fume Hood			✓ Lab Sink		☐ Mobile Casework	
☐ Snorkel			✓ Hand Wash		✓ Fixed Casework	base cabs.
Canopy	exhaust hood a	at ovens	Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH		Other		☑ Tall Shelving	store samples
☐ Air Filtration (Supp	ply and/or Exhaust	:)	-		☐ Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	duplex outlets	@ 24" o.c.	☑ Compressed air	120 PSI w/ regulate	SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
■ Emergency	UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note F.2		-		☐ Acoustics	
<b>☑</b> 208V	Note F.2		☐ Other/Specialty		✓ Humidity	Note E.2
<b>✓</b> 480V	Note F.2		HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			✓ Other	shards & projectiles	5	
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	JAL
Ambient Light Leve	e 60-80 fc		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			<b>☑</b> Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECU	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	See RDS 2.21	☐ Keyed Entry	
Natural Light			Fire Extinguisher	See RDS 2.21	☐ Access Control	
			<del>.</del>		☑ Other	Norte G.5

Program ID: 2.22 Room Name: Miscellaneous Products Lab Department:

### **NOTES**

A. Adjacencies: At the exterior of the building; Directly adjacent to Machine Shop and Pipe Storage and Cutting

### B. Equipment:

<u>C. Processes:</u> conducts over 3000 tests for the National Transportation Products Evaluation Program (NTPEP) as an AASHTO-accredited testing facility for various steel products. These tests are part of nearly 100 annual audits for reinforcement bar, welded wire reinforcement, cold-drawn wire, and seven-wire strand producers who wish to be NTPEP-certified.

### D. General Notes:

- 1. Open configurable space preferred.
- 2. Gantry crane supported by building structure, optional portable hoist.
- 3. Ceilings shall be 16' A.F.F.
- 5. Immediate access to Metal Scrap Dumpster

### E. Environmental conditions:

1. Temperature: 73.5 +/-3.6F

2. Humidity: 50% RH+/- 5%. Humidity must be maintained at all times to properly condition the plastic

samples. Humidity ranges will need to adjustable between 45-65% relative humidity, depending

on the materials being tested in the Miscellaneous Products Room.

3. Dust collection System: Exhaust needed to collect fine and coarse plastic dust generated while cutting

plastic piping. The air-borne dust needs to be collected and the fumes exhausted

from the space.

a. Dust Collection (plastic dust) exhaust connected directly to equipment:

connect directly to pipe cutting machine.

### F RDS Notes:

- 1. Final interior finishes to be selected by the design team selected for this project.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide a Misc. Products Failed Storage Area -- potentially could be in Metals Lab if the environmental controls were better, but will keep separate for now.
- 4. Provide heavy duty shelves, depth 48" deep with 48" clearance in front of shelves. All storage shelves, cabinets, and worktables to be new.
- 5. Refer to the Security narrative.

Program ID:	2.23	Room Name:	Machine Sho	р		Department:
Quantity:	1	Area (SF):	2420	Occupants:	1 to 2	Metals&
Function:	tests over 350	steel, plastic, fabric	, and other materia	ls; see test types in	notes	- Misc. Products Lab
		II	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
<b>□</b> Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☐ Height- 4"	☐ 48in	Roll-up door 10ft
✓ Other	Other	☐ Other	<b>☑</b> Other	✓ Other	☑ Door Size	x 10ft
Note F.1	Note F.7	Note F.1/F.3	Note F.1	Note F.1	door off central cor	ridor
<b>DUCTED LAB EQU</b>	JIPMENT		PLUMBING	SERVICES	CASEV	VORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
✓ Snorkel	for soldering		☑ Hand Wash		<b>✓</b> Fixed Casework	Note F.4
Canopy	Note D.4, Note	D.5	Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☑ Deep Sink		Counter Material	
Other			☑ Floor Drain		☑ Other	Note F.5
HVAC			☐ Scullery Sink		STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH min	ı.	Other		☑ Tall Shelving	store samples
☐ Air Filtration (Supp	oly and/or Exhaust	)	•		Peg Board	
<b>POWER AND DAT</b>	Ά		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	duplex outlets	@ 24" o.c	☑ Compressed air	120PSI w/ regulato	SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	✓ Floor Mounte	d	□ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		<b>☑</b> Vacuum		✓ Temperature	Note D.1
☑ 120V	equipment		•		☐ Acoustics	
<b>☑</b> 208V	equipment		Other/Specialty		✓ Humidity	Note D.2
<b>∡</b> 480V	equipment		HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Note F.8
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	<b>✓</b> Other	Note D.3
			✓ Other	shards & projectiles	5	Note D.3
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VISU	JAL
Ambient Light Leve	60-80 fc		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
Zoned Lighting			☑ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUI	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet Pipe	☐ Keyed Entry	
✓ Natural Light			☑ Fire Extinguisher		☐ Access Control	
					☑ Other	Note F.6

Program ID: 2.23 Room Name: Machine Shop Department:

#### **NOTES**

A. Adjacencies: Directly adjacent to Metals Lab, and Misc. Products; Failed Storage and along the exterrior of the building.

- 1. The areas within Machine Shop:
  - 2.23.1 Nuts / Bolts Storage
  - 2.23.2 Welding Station
  - 2.23.3 Paint Area
- 2. Machine Shop Shared with Traffic Instrumentation.
- B. Equipment: Gantry crane/hoist supported by building structure, option for portable hoist, electronic forklift, welding booth, sandblaster, drill press. For additional equipment, refer to the equipment matrix.
- 1. New CNC Lathe with capacity for Chuck (chucks can get bigger) and shall occupy more floor area.
- C. Processes: None

### D. Environmental Conditions:

- 1. Temperature: 72-75 +/-2F
- 2. Humidity: 55%RH+/- 5%. Humidity should be low enough to limit the corrosion of machinery equipment.
- 3. Dust collection System:

Exhaust needed to collect the wood, plastic and metal dust generated in the machine shop. Dust Collection exhaust connected directly to equipment ( Metal Dust cannot be within the same systems as plastic and wood.):

- a. Dust Collection (Wood and plastic dust) shall connect directly to table saw and lathe
- b. Dust Collection (Metal dust) shall connect directly to the grinder and lathe.
- 4. **Welding Station (2.23.2):** Metal Dust collection and welding fume exhaust required. Canopy can provide above the countertop.
- 5. **Paint Area (2.23.3):** A fancy paint booth is not required, all the painting is done using spray cans.

Provide exhaust for paint spray-paint fumes above the work area.

### E. General Notes:

- 1. Open configurable space preferred.
- 2. Need for portable hoist
- 3. Space needs immediate access to Metal Scrap Dumpster.

- 1. Interior Finishes provided is the preferred option, Final interior finishes shall be selected by the design team
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide solid filled CMU wall that extend to the ceiling.
- 4. Provide new storage shelves, and base cabinets, tool storage.
- 5. Provide new worktables. The casework needs to withstand significant impact, ensure that the selected material is better and tougher than the existing.
- 6. Refer to the Security narrative.
- 7. Provide open ceiling with 16' above finished floor for maintenance and access above equipment.
- 8. Extremely noisy space, isolation of the sound is important for this space.

Program ID:	2.24	Room Name:	Pipe Storage	and Cutting		Department:
Quantity:	1	Area (SF):	484	Occupants:	1 to 2	Metals& Misc.
Function:						Products Lab
		I	NTERIOR FINI	ISHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ 48in	
✓ Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	✓ Door Size	
Note G.1	Note G.1, F.3	Note G.1	Note G.1	Note G.1		
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASE	WORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
✓ Snorkel	dust collection	- Note E.3	☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
<b>☑</b> Other	non-chemistry	lab hood-Note F.6	☐ Floor Drain		<b>☑</b> Other	None
HVAC			☐ Scullery Sink		STO	RAGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH	min.	Other		✓ Tall Shelving	Note G.3
☐ Air Filtration (Supp	oly and/or Exhaust	)			☐ Peg Board	
<b>POWER AND DAT</b>	A		LABORATO	RY SERVICES	☐ Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☑ Compressed air	120PSI w/ regulato	SPECIAL REC	QUIREMENTS
$\square$ Ceiling Mounted	☐ Floor Mountee	d	☐ Purified Water		☑ Vibration Control	See note C.8
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	See RDS 2.21
☑ 120V	Refer note G.2		_	dust collection for	☐ Acoustics	
<b>☑</b> 208V	Refer note G.2		☑ Other/Specialty	cutting pipes	☑ Humidity	Note E.2
<b>☑</b> 480V	Refer note G.2		HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	Noise space
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	,
☐ Other			☐ Toxic	☐ Radioactive	<b>☑</b> Other	Note E.3
			☑ Other	shards & projectiles	5	Note L.5
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VIS	UAL
Ambient Light Leve	60-80 fc		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>✓</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			☑ Goggles		☐ Projection	
☐ Dimmer			☐ PPE			IRITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet Pipe	☐ Keyed Entry	
✓ Natural Light			☑ Fire Extinguisher	ABC	☐ Access Control	
			-		☑ Other	Note G.4

Program ID: 2.24 Room Name: Pipe Storage and Cutting Department:

#### **NOTES**

- A. Adjacencies: At the exterior of the building; Directly adjacent to Machine Shop and the Miscellaneous Products Lab.
- B. Equipment: For additional equipment, refer to the equipment matrix.
- C. Processes: Refer to the RDS for each area.
- D. Primary Areas: None

### E. Environmental Conditions:

- 1. Temperature: 73.5 +/-3.6F
- 2. Humidity: 50% RH+/- 5%. Humidity noisy be maintained at all times to properly condition the plastic samples.
- 3. Dust collection System: Exhaust needed to collect fine and coarse plastic dust generated while cutting plastic piping. The air-borne dust needs to be collected and the fumes exhausted from the space.
  - a. Dust Collection exhaust connected directly to equipment:
    - Dust Collection (plastic dust) shall connect directly to pipe cutting machine.

#### F. General Notes:

- 1. Open configurable space preferred.
- 2. Gantry crane/hoist supported by building structure, option for portable hoist.
- 3. Ceiling height 16' clearance required for access and maintenance.
- 4. Space shall be extremely noisy.
- 5. Immediate access to Metal Scrap Dumpster.

- 1. Selected finishes are the preferred option, final interior finishes to be selected by the design team selected for this project.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide heavy duty shelving units; shelves 36" deep.
- 4. Refer to the Security narrative.

Program ID:	2.31	Room Name:	Diagnostics /	Shop		<b>Department:</b>
Quantity:	1	Area (SF):	605	Occupancy:	4	Nuclear
Function:	perform equip	ment calibrations for	r pavement density	and mositure testin	g equipment	_
		IN	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .
□ Ероху	<b>☑</b> GWB	☐ GWB	<b>☑</b> Epoxy	☑ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
✓ ESD Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased opening	
☐ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☑ Other	✓ Door Size	42" depending on lab layout
Note G.1, G.2	Note G.1	Note G.1/G.5	Note G.1	Note G.1		on lab layout
DUCTED LAB EQU	JIPMENT		PLUMBING SERVI	CES	CASEV	VORK
☐ Fume Hood			☑ Lab Sink	Qty:1	☑ Mobile Casework	
✓ Snorkel	soldering/fume	e extraction	☐ Hand Wash		✓ Fixed Casework	
☑ Canopy	soldering/fume	e extraction	☐ Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☑ Deep Sink	15" DEEP, Qty:1	☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per Ho	our 8 ACH		Other		☐ Tall Shelving	
☐ Air Filtration (Supp	ply and/or Exhaus	t)			Peg Board	
POWER AND DAT	Ά		LABORATORY SEI	RVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	0.C.	☑ Compressed air	dry	SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	Refer note B.1				✓ Acoustics	Note E.3
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	license rq'd
☐ Other			☐ Toxic	✓ Radioactive	☑ Other	
			Other			
LIGHTING				FIRE PROTECTION	VISL	JAL
Ambient Light Leve	60-80 fc		☐ Safety Shower		☐ White Board	
☑ Task Light			☑ Eyewash	Note G.4	☐ Monitor	
☐ Zoned Lighting			☑ Goggles	for soldering	Projection	
☐ Dimmer			☑ PPE ·	Qty:1	SECUI	RITY
Occ Sensor			☐ In-Use Signage		□ сстv 	
☐ Window Treatmen	t		Sprinkler Type	wet pipe	Keyed Entry	
☐ Natural Light			Fire Extinguisher		✓ Access Control	Note G.3

 Program ID:
 2.31
 Room Name:
 Diagnostics / Shop
 Department:

 Quantity:
 1
 Area (SF):
 605
 Occupancy:
 4
 Nuclear

### **NOTES**

### A. Adjacency:

1. Nuclear should be as far away from others as possible and located along the perimeter wall. The diagonistics/shop shall be directly adjacent to 2.34 Calibration Room. The 2.32 Hot Room must be a minimum of 30' away from workstations, and 2.33 Storage.

Nuclear - Diagnostics/Shop shall be located near Loading Dock and Offices have relationship to Nuclear Also has synergies with Soils lab -- this lab is also the Soils Instrumentation Lab too. (Ideal to have some adjacency to Soils department but not absolutely necessary.)

- 2. Refer to the Adjacency and Concept Diagrams.
- B. Equipment: soldering, File Cabinets (qty 2; 15"W x 28"D x 53"H).
- 1. For additional equipment refer to equipment matrix for power, water, gas requirements, etc.
- C. Primary Areas: In the Diagnostics / Shop
  - 2.31.1 Calibration Station, qty 1
  - 2.31.2 Source Rod Inspection Station, qty 1
  - 2.31.3 Soldering Station, qty 1
  - 2.31.4 Workstation, qty 1

### D. Test Description:

How the Gauge Boxes are used?

The gauge box is placed on compacted soil in the field.

Repair, maintenance and calibration of the gauges are done in this room. Each district has their own gauges, but all of them are serviced and maintained in this lab. The technicians within the labs do not perform test in the field.

### E. Environmental Conditions:

- 1. Temperature: 68-72F +/- 2F 2. Humidity: 23-55%RH+/- 5%
- 3. Acoustic: NC-36

### F. General Notes:

- 1. Reference standards: ASTM 7013, ASHTO T310. Department must follow ALARA As Low as Reasonably Achievable.
- 2. Diagnosis and circuiting shall occur at the same work station. Provide ample workstations to facilitate work.
- 3. The current flow of the lab keeps the service area and hot room sufficiently distanced and shielded from the calibration bays. This allows easy access for the service technician to remove/return gauges without interrupting calibrations in the calibration bays. The radiation emitted from one gauge can be detected by another gauge. If the gauge being calibrated detected the radiation from a gauge in the hot room or one being serviced, it would negatively affect the calibration.
- 4. Service area should allow for additional test equipment to work on/test new technology.
- 5. Parking stop for District personnel delivering/picking up nuclear gauges. Entry level should be on ground level, no steps to prevent tripping while carrying a gauge that weighs more than 40lbs.

- 1. Final interior finishes shall be selected by the Design Team selected for this project.
- 2. Provide Electrostatic dissipative material(ESD) flooring.
- 3. Refer to the Narratives for additional information.
- 4. Provide eyewashes at all sinks
- 5. Depending on design it may required 16" block walls filled with high density concrete.

Program ID:	2.32	Room Name:	<b>Hot Room</b>			Department:
Quantity:	1	Area (SF):	121	Occupancy:		Nuclear
Function:	houses instrum	ents that contain li	censed radioactive n	naterial		_
		I	NTERIOR FINI	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOOR	
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	access must be
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	from inside lab
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
✓ Other	<b>✓</b> Other	✓ Other	✓ Other	☑ Other	☑ Door Size	42" sheilding
Note G.1, G.2	Note G.1	Note G.1, G.3	Note G.1	Note G.1		
<b>DUCTED LAB EQU</b>	JIPMENT		PLUMBING SERVI	CES	CASE	WORK
☐ Fume Hood			Lab Sink		✓ Mobile Casework	
☐ Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	RAGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 8 ACH		Other		✓ Tall Shelving	heavy duty
☐ Air Filtration (Supp	oly and/or Exhaust)	)			Peg Board	
POWER AND DAT	Α		LABORATORY SEE	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			Compressed air		SPECIAL REC	QUIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	t	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note B.1		_		✓ Acoustics	Note E.3
□ 208V			☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	Sound Isolation	
✓ Data	✓ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☑ Radioactivity	license rq'd
☐ Other			☐ Toxic	✓ Radioactive	<b>☑</b> Other	shielding
			Other			Sinciding
LIGHTING				IRE PROTECTION	VIS	UAL
Ambient Light Leve	60-80 fc		Safety Shower		☐ White Board	
☑ Task Light			Eyewash		☐ Monitor	-
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECU	RITY
Occ Sensor			☐ In-Use Signage		☐ CCTV	
Window Treatmen	t		Sprinkler Type	wet pipe	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Control	Note G.4

Program ID:	2.32	Room Name: Hot Room		Department:
Quantity:	1	Area (SF): 121	Occupancy:	Nuclear
		NOTE	·C	

A. Adjacency: Refer to the RDS 2.31 Diagnostics/Shop.

B. Equipment: Store up to 80 gauges in the New Hot Room. 2 tiered storage arrangement.

1. For additional equipment refer to equipment matrix for power, water, gas requirements, etc.

C. Primary Areas: n/a

D. Test Description: n/a

### **E.** Environmental Conditions:

1. Temperature: 68-72F +/- 2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

### F. General Notes:

- 1. Reference standards: ASTM 7013, ASHTO T310. Department must follow ALARA As Low as Reasonably Achievable.
- 2. Final interior finishes to be selected by the Design Team selected for this project.

- 1. Refer to RDS 2.31 Diagnostics/Shop.
- 2. Provide Electrostatic dissipative material(ESD) flooring.
- 3. 12" 16" walls filled with high density concrete for 2.32 Hot Room, Design team to confirm.
- 4. Refer to the Narratives for additional information.

Program ID:	2.33	Room Name:	Storage			Department:
Quantity:	1	Area (SF):	242	Occupancy:		Nuclear
Function:	houses instrum	nents that contain li	censed radioactive r	naterial		_
		II	NTERIOR FINI	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOOR	
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Door Size	6'x8'
Note G.1	Note G.1	Note G.1/G.4	Note G.1	Note G.1		
<b>DUCTED LAB EQU</b>	JIPMENT		PLUMBING SERVI	CES	CASEV	VORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per Ho	our		Other		✓ Tall Shelving	Note G.5
☐ Air Filtration (Sup	ply and/or Exhaust	<b>:</b> )			Peg Board	
POWER AND DAT	Ά		LABORATORY SEI	RVICES	Lockers	
☐ Island Bench	-		□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		✓ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	Refer Note B.1		-	_	✓ Acoustics	Note E.3
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT		☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	Acid/ Corrosive	☐ Flammable	Radioactivity	license rq'd
☐ Other			☐ Toxic	✓ Radioactive	<b>☑</b> Other	shielding
			Other			_
LIGHTING				FIRE PROTECTION	VISU	JAL
Ambient Light Leve			☐ Safety Shower		☐ White Board	
Task Light			Eyewash		Monitor	
Zoned Lighting			Goggles		☐ Projection	
Dimmer			□ PPE		SECUI	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet pipe	☐ Keyed Entry	
☐ Natural Light			✓ Fire Extinguisher		✓ Access Control	Note G.3

Program ID:	2.33	Room Name: Storage		Department:
Quantity:	1	Area (SF): 242	Occupancy:	Nuclear
		110==0		

#### NOTES

A. Adjacency: Refer to the RDS 2.31 Diagnostics/Shop

<u>B. Equipment</u>: Pile Driving Analyzer Equipment (qty 2; each 26"W x 21"D x 15"H), Drill Rig Calibration Equipment (qty 2; each 26"W x 21"D x 15"H).

1. For additional equipment refer to equipment matrix for power, water, gas requirements, etc.

C. Primary Areas: n/a

D. Test Description: n/a

### E. Environmental Conditions:

1. Temperature: 68-72deg F +/- 2deg F

2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

#### F. General Notes:

- 1. Storage gauges need to be far away from gauges being calibrated in the labs, which means the background counts need to be at zero.
- 2. Transportation pieces are dropped off for servicing, presently this equipment are immediately picked due to lack of storage. Users requesting more area for storage for these equipment.
- 3. Large enough to store up to 50 empty transport cases as well as other equipment the lab is in charge of, and allow for expansion.
- 4. Provide space to secure training and individual radiation monitoring reports. These should be locked in the supervisor's office and shall be retained for forever or as long as the Department has a radioactive materials license.

- 1. Final interior finishes refer to RDS sheet 2.31
- 2. Refer to the equipment matrix for power, water, gas requirements, etc.
- 3. Refer to the Narratives for additional information.
- 4. Depending on design it may require 16" block walls filled with high density concrete.
- 5. Provide heavy duty wire shelving, u.n.o.

Program ID:	2.34	Room Name:	Calibration La	b		Department:
Quantity:	1	Area (SF):	363	Occupancy:	4	Nuclear
Function:	perform equipn	nent calibrations for	r pavement density	- and mositure testing	equipment	_
		I	NTERIOR FINI	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	Rooms should be accessed from
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	diagnostics lab
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	✓ Cased Opening	
✓ Other	<b>✓</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	☐ Door Size	
Note G.1, G.2	Note G.1	Note G.1/G.4	Note G.1	Note G.1		
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING SERVI	CES	CASE	WORK
☐ Fume Hood			☐ Lab Sink		✓ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☑ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	RAGE
Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6-8 ACH		☐ Other		☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)				Peg Board	
POWER AND DAT	A		LABORATORY SEF	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench	Duplex @ 24" (	).C.	☐ Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	1	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		<b>✓</b> Temperature	Note E.1
☑ 120V	Note B.1		_		☑ Acoustics	Note E.3
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	license rq'd
Other			☐ Toxic	✓ Radioactive	<b>✓</b> Other	shielding
			☐ Other			Sinciality
LIGHTING				IRE PROTECTION	VIS	UAL
Ambient Light Leve	60-80 fc		Safety Shower		☐ White Board	
☑ Task Light			Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECU	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
Window Treatmen	t		Sprinkler Type	Wet pipe	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		☑ Access Control	Note G.3

Program ID:	2.34	Room Name: C	alibration Lab		Depa	rtment:
Quantity:	1	Area (SF): 36	3 O	ccupancy: 4	Nu	ıclear
			NATEC			

A. Adjacency: Refer to the RDS 2.31 Diagnostics/Shop

B. Equipment: No equipment but Gauges may need to be charged during calibration.

1. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.

### C. Primary Areas:

1. Calibration Lab has two Bays:

2.34.1 Bay 1 2.34.2 Bay 2

### D. Test Description:

- 1. Two separate rooms for each set of calibration blocks. This setup allows for two gauges to be calibrated per day.
- 2. In each calibration room there are four bays of block test for the densities of different materials- Aluminum, mag/poly, etc. One gauge goes into each bay at a time. Every 4 mins a count is taken.

### E. Environmental Conditions:

1. Temperature: 68-72deg F +/- 2degF

2. Humidity: 23-55%RH +/- 5%

3. Acoustic: NC-36

### F. General Notes:

- 1. Reference standards: ANSI D7013, ASHTO T310. Department must follow ALARA.
- 2. Parking stop for District personnel delivering/picking up nuclear gauges. Entry level should be on ground level or no more than a step to prevent tripping while carrying a gauge that weighs more than 40lbs.
- 3. Unshielding gauges must be 33' away from other gauges, or it would be seen by the the gauge being calibrated with the suite.
- 4. The calibration blocks density are tested every five years, if specs change for testing this block would need to be replaced and the block would get larger. Weight: approximately 160lbs per cubic feet, presently on rollers.
- 5. No dumpster are required. Licenced companies that are certified to handle radioactive material are hired to dispose of anyun repairable gauges.

- 1. Refer to RDS 2.31 Diagnostics/Shop.
- 2. Provide Electrostatic dissipative material(ESD) flooring.
- 3. Refer to the Narratives for additional information.
- 4. Depending on design it may require 16" block walls filled with high density concrete.

Program ID:	2.41	Room Name:	Open Lab			Department:
Quantity:	1	Area (SF):	4356	Occupants:	6	Concrete
Function:	Testing of conc	- rete related materia	ls to populate a mi	_ nimum of 17 qualified	product lists	<del>-</del>
		If	NTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
□ Ероху	☐ GWB	☐ GWB	☑ Epoxy	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
Rubber Mat	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	<b>✓</b> Other	<b>☑</b> Other	✓ Other	✓ Other	✓ Door Size	Note G.3
See Note G.1	See Note G.1	See Note G.1	See Note G.1	See Note G.1	<b>☑</b> Other	
MECHANICAL	, PLUMBING,	ELECTRICAL, D	ATA, FIRE PRO	TECTION, SECUR	ITY, ARCHITEC	TURAL/LAB
DUCTED LAB EQU	IPMENT		PLUMBIN	G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☑ Mobile Casework	
☐ Snorkel			☑ Hand Wash	Note G.11	✓ Fixed Casework	Note G.5
☐ Canopy			Cup Sink		Casework Materia	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
✓ Other	Note G.6		☑ Floor Drain	trench drn Note G.:	1☐ Other	
HVAC			✓ Scullery Sink	Note G.9, G.11	STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		☑ Tall Cabinets	
☑ Air Change Per Ho	our 6-8 ACH		Other		✓ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust)	Note G.8			<b>✓</b> Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
✓ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (		☑ Compressed air		SPECIAL REQ	JIREMENTS
Ceiling Mounted	☐ Floor Mounted	d	Purified Water		☐ Vibration Control	
<b>☑</b> Emergency	<b>☑</b> UPS		☑ Vacuum	-	☑ Temperature	Note E.1
☑ 120V	Note G.4, and	G.2	_		Acoustics	Note E.3
<b>☑</b> 208V	Note G.2		☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	ATERIAL STORAGE	☑ Sound Isolation	Note G.7
<b>☑</b> Data	☐ Wi-Fi Router	☐ Comm.	✓ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
✓ Other			☑ Toxic	☐ Radioactive	✓ Other	Dust Collection,
			☑ Other	explosive		Note G.6, G.8.
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve		ct/ Indirect	✓ Safety Shower		☐ White Board	
☑ Task Light	70-80 FC		Eyewash		☐ Monitor	
Zoned Lighting			☑ Goggles		☐ Projection	
Dimmer			☑ PPE		SECUR	RITY
Occ Sensor			In-Use Signage		ССТУ	
✓ Window Treatment	t		☑ Sprinkler Type	wet Pipe	☐ Keyed Entry	
☑ Natural Light			Fire Extinguisher	ABC	✓ Access Control	G.10

Program ID: 2.41 Room Name: Open Lab Department:

#### **NOTES**

<u>A. Adjacencies:</u> The concrete lab is directly adjacencies to Polymer Concrete Testing, Tool Storage, Moist/Cure, Salt scale, Freeze/Thaw (with access to the utility room), Length Meas., Loading Dock, Office, and in close proximity to the Aggregate Bulk Storage.

<u>B. Equipment</u>: Refer to each section within the open lab area for the equipment. Separator pit (cleaned out by septic company).

C. Processes: Refer to the RDS for each area.

### Material Flow:

- 1. Material comes from Aggregate ( aggregate samples presently are transported down the corridor via flatbed cart).
- 2. Cement material to the concrete lab (moist curing room and occasionally to the freezer room).
- 3. Chemistry also receive concrete samples for testing.
- 4. Material (Raw Material, Large Commercial Products, Small Commercial Products) are also delivered via courier to the concrete lab.
- <u>D. Primary Areas</u>: Concrete Open Lab shall have the following areas Mixing, Cast Molding, Curing Compound, Compression Flexural Testing, Sample Receiving, Sort and Logging.
- E. Environmental Conditions: Refer to RDS sheet for each area.
- 1. Temperature: 68-74F +/- 2F 2. Humidity: 23-55%RH+/- 5%
- 3. Acoustic: NC-36

#### F. General Notes:

- 1. Refer for Laboratory narrative for additional information.
- 2. Ceilings shall be 12'-0" unless noted otherwise.
- 3. The lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room unless noted otherwise.
- 4. The lab offices need to be directly attached to the lab space, allowing easy access to equipment should any malfunctions occur during a test.
- 5. Do not use Daiken products these have proven not to work in our lab environment. Also, the lab has very specific requirements for temperature and humidity based upon the performed tests.
- 6. Openness of lab allows for easier maneuvering of large carts to transport items.
- 7.

- 1. Interior Finishes provided are the preferred option, final interior finishes shall be selected by the design team.
- 2. Refer to equipment matrix for power, water, gas requirement etc.
- 3. Roll-up door Size 8'x 8', (door height may need to increases due to the equipment in the room) with access to the central corridor., with a 42"x96" man door leads to the loading dock.
- 4. Provide 120V outlet around perimeter unless noted otherwise.
- 5. Provide a countertop that is tough and durable. Provide 36" deep countertop.
- 6. Dust collection system required for the sila dust that shall be generated in this space.
- 7. Solid filled cmu wall that extend to ceiling, is an option to isolate the noise and prevent noise transfer to other departments. Equipment in the open lab tends to be loud, and can transfer quite easy through the space.
- 8. Significant sila dust shall be generated in this space. Ensure that filter are provided at exhaust grilles. Refer to mechanical narrative for additional information.
- 9. Provide double sink scullery
- 10. Refer to Architectural narrative.
- 11. Provide Sediment trap at all sink and floor drains.

Program ID:	2.41.1	Room Name:	Open Lab - Mixing			Department:
Quantity:	1	Area (SF):	544.5	Occupants:	6	Concrete
Function:		_		_		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOOR	
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	✓ Other	✓ Door Size	8'W x 8'H
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	☐ Other	
DUCTED LAB EQU	JIPMENT		PLUMBIN	G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		✓ Mobile Casework	
☐ Snorkel			☑ Hand Wash	Note G.6	■ Fixed Casework	Note G.4
☐ Canopy			Cup Sink		- ☐ Casework Material	
☐ Biological Safety (	Cabinet		☑ Deep Sink	Note G.6	Counter Material	
<b>☑</b> Other	See Note G.7		☑ Floor Drain	Pit, Note G.6	Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization	See 2.41		☐ Floor Sink		☑ Tall Cabinets	
☐ Air Change Per Ho	our		<b>☑</b> Other		☑ Tall Shelving	
☑ Air Filtration (Sup	ply and/or Exhaust	) Note G.1	•		☐ Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
☑ Island Bench	G.6		☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	See RDS 2.41		☑ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☑ Emergency	<b>☑</b> UPS		☑ Vacuum		☑ Temperature	Note E.1
☑ 120V	Note B.2		-		✓ Acoustics	Note E.3
☑ 208V	Note B.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	
☐ Data	☐ Wi-Fi Router	Comm.	✓ Acid/ Corrosive	<b>☑</b> Flammable	☐ Radioactivity	
☐ Other			✓ Toxic	☐ Radioactive	<b>☑</b> Other	Nata C 2
			Other			Note G.3
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	Note G.2		✓ Safety Shower	Note G.1	☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	Note G.1	☐ Monitor	
☐ Zoned Lighting			<b>☑</b> Goggles	Note G.1	☐ Projection	
Dimmer			<b>☑</b> PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.1	☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher	Note G.1	☐ Access Control	
☐ Other			☑ Other	Note G.1	<b>☑</b> Other	See RDS 2.41

Program ID: 2.41.1 Room Name: Open Lab - Mixing Department:

#### **NOTES**

A. Adjacencies: See RDS 2.41 Open Lab.

#### B. Equipment:

- 1. Ceiling mounted hoist system, forklift, (2) gilson shakers, (1) floor scale, (1) oven, (3) mixers, (1) fractionator.
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement.

C. Processes: Refer to the RDS for each area.

D. Primary Areas: None

# E. Environmental Conditions:

Temperature: See RDS 2.41
 Humidity: See RDS 2.41
 Acoustic: See RDS 2.41

# F. General Notes:

1. If a new mixer is needed in the future the mixer alone will take up 1 module.

- 1. Refer to the RDS 2.41 Open lab, unless noted otherwise.
- 2. Refer to the RDS 2.41, the lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room, unless noted otherwise.
- 3. Sila dust shall be generated in this space and it requires general Dust collection.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.
- 6. Provide sediment traps in the Concrete Pit located by the Mixers.

Program ID:	2.41.2	Room Name:	Open Lab - Cas	sting/Molding		Department:
Quantity:	1	Area (SF):	544.5	Occupants:	6	Concrete
Function:		_		-		_
		IN	NTERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
$\square$ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
✓ Other	✓ Other	✓ Other	✓ Other	✓ Other	✓ Door Size	
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	✓ Other	Note G.1
DUCTED LAB EQU	JIPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☑ Lab Sink	Note G.2	✓ Mobile Casework	
Snorkel			✓ Hand Wash	Note G.2	✓ Fixed Casework	Note G.5
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		☐ Counter Material	
<b>☑</b> Other	See Note G.7		✓ Floor Drain	Note G.2	☑ Other	Note G.6
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per H	our		Other		✓ Tall Shelving	
☑ Air Filtration (Sup	ply and/or Exhaus	t) dust filtration			☐ Peg Board	
POWER AND DAT	'A		LABORATO	RY SERVICES	☐ Lockers	
✓ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	0.C.	Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☑ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note G.2				Acoustics	Note E.3
<b>☑</b> 208V	Refer note G.2		☐ Other/Specialty		✓ Humidity	Note E.2
<b>✓</b> 480V	Refer note G.2		HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
✓ Data	☐ Wi-Fi Router	Comm.	☑ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
☐ Other			<b>☑</b> Toxic	☐ Radioactive	<b>☑</b> Other	Dust collection
			✓ Other	explosive		Dust collection
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	Note G.2		☑ Safety Shower	Note G.3	☐ White Board	
☑ Task Light	Note G.2		<b>☑</b> Eyewash	Note G.3	☐ Monitor	
☐ Zoned Lighting			☑ Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmer	nt		Sprinkler Type	Note G.3	☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		☐ Access Control	
Other			Other		_	

Program ID: 2.41.2 Room Name: Open Lab - Casting/Molding Department:

# **NOTES**

A. Adjacencies: See RDS 2.41 Open Lab.

# **B. Primary Equipment:**

- 1. Ceiling mounted hoist system, forklift. Refer to the equipment matrix.
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement.

# C. Processes:

D. Primary Areas: None

# E. Environmental Conditions:

Temperature: See RDS 2.41
 Humidity: See RDS 2.41
 Acoustic: See RDS 2.41

#### F. General Notes:

- 1. Refer to the RDS 2.41 Open lab, unless noted otherwise.
- 2. Refer to the RDS 2.41, the lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room, unless noted otherwise.
- 3. Refer to the architectural narratives.
- 4. Not used
- 5. Provide long tables with shelf below (probably 25' x 3') w/ room for cart to move around pans that have 4' diameter.
- 6. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter. Provide base cabinets under the Island Bench and perimeter casework.
- 7. Dust collection for the dust that shall be generated in this space.

Program ID:	2.41.3 Room Name: Open			pen Lab - Curing Compound		
Quantity:	1	Area (SF):	363	Occupants:	6	Concrete
Function:				_		
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased opening	
✓ Other	<b>☑</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	8'x8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			Note G.2			
<b>DUCTED LAB EQU</b>	IIPMENT		PLUMBING	SERVICES	CASEW	ORK
✓ Fume Hood	Qty:1, Note G.	5	☑ Lab Sink	Note G.2	✓ Mobile Casework	
☐ Snorkel			☑ Hand Wash	Note G.2	☑ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☑ Floor Drain	Note G.2	Other	
HVAC			☐ Scullery Sink		STORA	\GE
Pressurization	Note G.1		☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per Ho	our		☐ Other		☑ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust)	)	•		Peg Board	
<b>POWER AND DAT</b>	Α		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Note G.2		☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	✓ Purified Water	Type II (Env. Ch)	☐ Vibration Control	
<b>☑</b> Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Refer note G.2				☐ Acoustics	Note E.3
<b>☑</b> 208V	Refer note G.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☑ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
Other			<b>☑</b> Toxic	☐ Radioactive	<b>✓</b> Other	Dust collection
			<b>☑</b> Other	explosive		Dust collection
LIGHTING			SAFETY EQUIP./	IRE PROTECTION	VISU	AL
Ambient Light Leve	Note G.2		✓ Safety Shower	Note G.1	☐ White Board	
☑ Task Light			<b>☑</b> Eyewash	Note G.1	☐ Monitor	
☐ Zoned Lighting			<b>☑</b> Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.1	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	Note G.1	☐ Access Control	
			1		•	

Program ID: 2.41.3 Room Name: Open Lab - Curing Compound Department:

# **NOTES**

A. Adjacencies: See RDS 2.41 Open Lab.

# **B. Primary Equipment:**

- 1. Ceiling mounted hoist system, forklift, (2) environmental chambers, (1) hood, (1) 76" worktable, (1) 97" worktable.
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement required.

# C. Processes:

D. Primary Areas: None

# E. Environmental Conditions:

Temperature: See RDS 2.41
 Humidity: See RDS 2.41
 Acoustic: See RDS 2.41

#### F. General Notes:

1. Openness of lab allows for easier maneuvering of large carts to transport items.

- 1. Refer to the RDS 2.41 Open lab, unless noted otherwise.
- 2. Refer to the RDS 2.41, the lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room, unless noted otherwise.
- 3. Not used
- 4. Refer to the architectural narratives.
- 5. 5' bench top fume hood for spraying curing compound

Program ID:	2.41.4	Room Name:	Open Lab - Co	mpression/Flex	cural Testing	Department:
Quantity:	1	Area (SF):	363	Occupants:	6	Concrete
Function:	Compression /	Flexural Testing		_		_
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		☐ Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased opening	
<b>☑</b> Other	✓ Other	✓ Other	<b>☑</b> Other	☑ Other	✓ Door Size	8'x8'
Refer note D.1	Refer note D.1	Refer note D.1	Refer note D.1	Refer note D.1	Other	
DUCTED LAB EQU	JIPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☑ Lab Sink	Note G.1	☑ Mobile Casework	
<b>✓</b> Snorkel			✓ Hand Wash	Note G.1	☑ Fixed Casework	
✓ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Note G.2		☐ Floor Sink		☑ Tall Cabinets	
☑ Air Change Per Ho	our Note G.2		Other		✓ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust)	dust filtration			☐ Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	D.C.	☑ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	b	☐ Purified Water		☑ Vibration Control	Note B.3
<b>☑</b> Emergency	<b>☑</b> UPS		☑ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	Refer note B.2		_		Acoustics	Note E.3
<b>☑</b> 208V	Refer note B.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V	-		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
<b>✓</b> Other	Building UPS ar	nd Emergency	☑ Toxic	☐ Radioactive	✓ Other	Dust collection
	power		<b>☑</b> Other	explosive		Buse concedion
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		✓ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
Zoned Lighting			☑ Goggles		☐ Projection	
Dimmer			<b>☑</b> PPE		SECUR	RITY
☐ Occ Sensor			☐ In-Use Signage		□ сст∨	
Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Control	

Program ID: 2.41.4 Room Name: Open Lab - Compression/Flexural Testing Department:

# **NOTES**

A. Adjacencies: See RDS 2.41 Open Lab.

# **B. Primary Equipment:**

- 1. ceiling mounted hoist system, forklift, currently have 3 instruments (2) compressive strength machines & (1) flexural strength machine), (1) vibrating table.
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement.
- 3. Refer to equipment matrix for information for vibration sensitive equipment.

# C. Processes:

D. Primary Areas: None

# E. Environmental Conditions:

1. Temperature: See RDS 2.41 2. Humidity: See RDS 2.41 3. Acoustic: See RDS 2.41

# F. General Notes:

1. The lab offices need to be directly attached to the lab space. This means we are more efficient in catching equipment malfunctions.

- 1. Refer to RDS 2.41
- 2. Refer to the RDS 2.41, the lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room, unless noted otherwise.
- 3. Refer to the architectural narratives.
- 4. Any equipment sensitive vibration please refer to equipment matrix for information.

Program ID:	2.41.5	Room Name:	Open Lab - Sai	mple Receiving		Department:
Quantity:	1	Area (SF):	242	Occupants:	6	Concrete
Function:	removed from	- Concrete program;	to be a part of the l	_ building's main loadin	g dock	
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	■ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
✓ Other	<b>✓</b> Other	✓ Other	✓ Other	✓ Other	✓ Door Size	6'x8'
See note G.1	See note G.1	See note G.1	See note G.1	See note G.1	<b>☑</b> Other	
DUCTED LAB EQU	[PMENT		PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		✓ Mobile Casework	
☐ Snorkel			✓ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety Ca	abinet		☐ Deep Sink		☐ Counter Material	
Other			☑ Floor Drain	trench drn Note G.	<b>1</b> ☐ Other	
HVAC			Scullery Sink		STORA	\GE
☐ Pressurization			☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per Ho	ur		☑ Other		✓ Tall Shelving	
☑ Air Filtration (Supp	ly and/or Exhaust)	Note G.1	-		Peg Board	
POWER AND DATA	<b>1</b>		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			✓ Compressed air		SPECIAL REQU	JIREMENTS
Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
✓ Emergency	<b>☑</b> UPS		☐ Vacuum		<b>☑</b> Temperature	Note E.1
<b>☑</b> 120V	Note B.2				Acoustics	Note E.3
□ 208V			☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☑ Toxic	☐ Radioactive	✓ Other	Dust collection
			✓ Other	explosive		Dust collection
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Level	: Note G.2		☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			<b>☑</b> PPE	Note G.1	SECUR	ITY
☐ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatment			Sprinkler Type	Note G.1	☐ Keyed Entry	
✓ Natural Light	Note G.1		☑ Fire Extinguisher	Note G.1	✓ Access Control	Note G.1

Program ID: 2.41.5 Room Name: Open Lab - Sample Receiving Department:

#### **NOTES**

A. Adjacencies: Direct adjacency to Aggregate Bulk Storage, Sorting and Logging and the loading dock.

#### B. Equipment:

- 1. Ceiling mounted hoist system from sampling receiving to the Mixing Area.
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement.

#### C. Processes:

D. Test Types: None

# E. Environmental Conditions:

Temperature: See RDS 2.41
 Humidity: See RDS 2.41
 Acoustic: See RDS 2.41

#### F. General Notes:

1. Bulk Aggregate Bin Storage shall be located for easy loading of aggregate from the exterior of building and unloading from the interior of the mixing area.

Requirements for the Aggregate delivery system:

- a. System should be similair to the existing setup with improved technology. See the attached information related to the material transfer chute concept diagram.
  - Request for access to the top of Aggregate bins to visual observe the material in the bins and for maintenance.
  - Request of interior shut- out valves to manually control the material flow from the bins to the interior of the mixing area.
- 2. Sample Disposal 55 gallon drum ferried by forklift to dumpster. Not optimal.
- 3. Samples: Product list includes 17 qualified products: chemical, cure compounds, grouts, liquid polymers compounds (commercial product), 13 tons of sand.
  - a. Small Commercial Products -- delivered in quart and gallon cans.
  - b. Large Commercial Products- Truck delivery in pallets, 18" x 18" samples.
  - c. Raw material includes bulk aggregate storage delivered via loading dock from outside and then transported into lab; 13 tons of sand, Aggregates Product (from Aggregates department).
  - d. Some samples came already molded. Smaller samples arrive by mail delivery and Larger materials by courier.
  - e. Purchase pallet of cement at a time ~3500lbs -- bulky and heavy.
- 4. Purchase pallet of cement at a time ~3500lbs -- bulky and heavy.
- 5. If not a part of the building's main loading dock, it should be 2 modules.

- 1. Refer to RDS 2.41 for additional information.
- 2. Refer to the RDS 2.41, the lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room, unless noted otherwise.
- 3. Refer to the architectural narratives.
- 4. Provide Sediment traps.

# Program ID: 2.41.5 Room Name: Open Lab - Sample Receiving Department:

# **EXISTING CONDITIONS:**

Exterior Building View Aggregate Delivery chutes

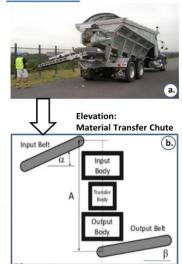


Interior Building View



Concrete Interior shut-out panels

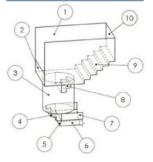
# PROCESS OF DELIVERYING AND TRANSFERING MATERIAL TO THE CONCRETE LAB:







# **MATERIAL TRANSFER CHUTE:**



Section Axo: Material Transfer Chute

# INTERIOR SHUT-OUT VALVES OPTIONS: (d.)

Controls the flow of material.

HAMMER SHUT-DOUBLE SEALS WITH EXTRA HEAVY PLATES



Legend for Image C:

1. Anti-scatter side Plates

Transfer cylinder

5. Anti-backup plates

Centering plates
 Unload skirt
 Upper bed
 Impact Bed
 Faceplate

Lower cylinder bed

Black Contention plate

Reference Images a., b., c, d: https://diamond8concrete.com/howvolumetric-mixers-work/

https://conforms.com/products/lay-downhigh-rise-systems/system-valves/manualdiversion-shutoff-valves/manual-heavyhammer-shutoff-valve/

CONCEPT DRAWINGS ARE REFERENCE INFORMATION DOCUMENTS AND ARE NOT CONSIDERED CONTRACT DOCUMENTS.

REFERENCE INFORMATION DOCUMENTS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE RELIED UPON AT THE PROPOSER'S DESIGN BUILDER'S OWN RISK. THE CONCEPDRAWINGS DO NOT WARRANT OR REPRESENT THAT THE INFORMATION CONTAINED HEREIN IS COMPLETE ACCURATE OR THAT SUCH INFORMATION IS IN CONFORMITY WITH THE REQUIREMENTS OF THE PROJECT. DESIGN-BUILDER SHALL HAVE NO RIGHT TO ADDITIONAL COMPENSATION OR TIME EXTENSION BASED ON ANY INCOMPLETENESS OR INACCURACY IN THE CONCEPT DRAWING.





CBD Project #630-442-057

<b>Program ID:</b>	2.41.6	Room Name: Open Lab - Sorting and Logging				Department:
Quantity: Function:	1	Area (SF):	1149.5	Occupants:	6	Concrete
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	_
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased Opening	
<b>☑</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	8'x8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	<b>☑</b> Other	
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☑ Lab Sink		✓ Mobile Casework	
✓ Snorkel			☑ Hand Wash		☑ Fixed Casework	
Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	\GE
Pressurization			☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per Ho	our		<b>☑</b> Other	Sediment trap @	✓ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust)	dust filtration		sinks	☐ Peg Board	
<b>POWER AND DAT</b>	A		LABORATOR	RY SERVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☑ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
Emergency	☐ UPS		☑ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note B.2				☐ Acoustics	Note E.1
<b>☑</b> 208V	Refer note B.2		☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☑ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
☐ Other			☑ Toxic ☑ Other	Radioactive	☑ Other	Dust collection
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	Note G.1		✓ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			☑ Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☑ Natural Light			Fire Extinguisher		Access Control	

**Program ID: 2.41.6** Room Name: Open Lab - Sorting and Logging Department:

# **NOTES**

A. Adjacencies: Direct adjacency to Sample Receiving/Loading Dock, Mixing, and Offices

#### **B.** Equipment:

- 1. ceiling mounted hoist system, forklift, (2) shelf units, (1) computer/laptop, (1) 72" worktable, (1) pallet of cement, (1) trash concrete pallet, bulk aggregate storage bins (250"W x 84"D x 103"H).
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement.

# C. Processes:

Samples are varying sizes and can be liquid, powder, and aggregate.

Samples: Product list includes 17 qualified products: chemical, cure compounds, grouts, liquid polymers compounds (commercial product), 13 tons of sand.

Items are stored on shelves or in Bins before logged and distributed to the various labs within concrete lab.

# D. Primary Areas:

Sorting Logging Area shall have the following areas

2.41.6a Small Commercial Products

2.41.7b Large Commercial Products

2.41.7c Raw Material

# E. Environmental Conditions:

Temperature: See RDS 2.41
 Humidity: See RDS 2.41
 Acoustic: See RDS 2.41

# F. General Notes:

- 1. Refer to RDS 2.41 for additional information.
- 2. Refer to the RDS 2.41, the lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room, unless noted otherwise.
- 3. Refer to the architectural narratives.
- 4. Provide a Sediment traps.

Program ID:	2.42	Room Name:	Polymer Concrete Testing			Department:
Quantity:	1	Area (SF):	121	Occupants:	6	Concrete
Function:	testing noxio	us materials		_		
		IN	<b>TERIOR FINIS</b>	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
✓ Other	✓ Other	✓ Other	✓ Other	✓ Other	✓ Door Size	8' x 8'
See Note G.1	See note G.1	See note G.1	See note G.1	See note G.1	Other	
DUCTED LAB EQUI	PMENT		PLUMBING	SERVICES	CASEW	ORK
✓ Fume Hood	Qty:1 , Note G	.3	☑ Lab Sink		✓ Mobile Casework	
☐ Snorkel			✓ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety Ca	binet		☐ Deep Sink		Counter Material	
☐ Other			✓ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Hou	ır 8 ACH		☑ Other	Sediment trap @	✓ Tall Shelving	
☑ Air Filtration (Suppl	y and/or Exhaust)	dust filtration		all sinks	Peg Board	
<b>POWER AND DATA</b>	<b>L</b>		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench	Duplex @ 24"	0.C.	Compressed air		SPECIAL REQ	JIREMENTS
Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
Emergency	<b>☑</b> UPS		✓ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	Refer note B.2		-		☐ Acoustics	
☑ 208V	Refer note B.2		☐ Other/Specialty		☑ Humidity	Note E.1
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
✓ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
✓ Other	Building UPS a	nd Emergency	✓ Toxic	☐ Radioactive	<b>☑</b> Other	Dust collection
	power		<b>☑</b> Other	explosive		Dust conceion
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Level:	60-80 FC		☑ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		Monitor	
☐ Zoned Lighting			✓ Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	RITY
☐ Occ Sensor			☐ In-Use Signage		□ сстv	
Window Treatment			☑ Sprinkler Type		☐ Keyed Entry	
✓ Natural Light			☑ Fire Extinguisher		✓ Access Control	

Program ID: 2.42 Room Name: Polymer Concrete Testing Department:

# **NOTES**

A. Adjacencies: Direct adjacency to 2.41 Concrete Open Lab

# B. Primary Equipment:

- 1. Fume hood CFCI
- 2. Refer to equipment matrix for additional equipment and the power, water, gas requirement.

# C. Processes:

# D. Test types:

1. Polymer Test

# E. Environmental Conditions:

- 1. Temperature: 68-74F +/- 2F 2. Humidity: 23-55%RH+/- 5%
- 3. Acoustic: NC-36

# F. General Notes:

- 1. Ceilings shall be 12'-0" unless noted otherwise.
- 2. Low exhaust (near floor level) required required in this room. Presently the polymer testing is being done outside due to hazardous fumes and lack of space in the existing lab.

- 1. Refer to RDS 2.41 open lab, unless noted otherwise.
- 2. Refer to equipment matrix for power, water, gas requirement etc.
- 3. Provide a floor mounted fume hood, draws the fumes downward to the floor in effort to push fumes away from the users.

Program ID:	2.43	Room Name:	Salt Scale (Fre	ezer Room)		Department:
Quantity:	1	Area (SF):	242	Occupants	:	Concrete
Function:						
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
<b>☑</b> Epoxy	☐ GWB	☐ GWB	□ Ероху	✓ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		☐ Glass	
Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	✓ Other	☑ Other	☐ Other	☑ Other	☑ Door Size	6'x8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	☑ Other	
DUCTED LAB EQU	JIPMENT		PLUMBIN	G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our		Other		 ☐ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust)		-		☐ Peg Board	
<b>POWER AND DAT</b>	Ά		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
Emergency	<b>☑</b> UPS		☐ Vacuum		 ☑ Temperature	
☐ 120V			-		Acoustics	
<b>☑</b> 208V	Refer note D.2		☐ Other/Specialty		☐ Humidity	see note C.1
<b>☑</b> 480V	Refer note D.2		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	☐ Other	
			☐ Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	N VISU	AL
Ambient Light Leve	e 60-80 FC		☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		 ☐ Monitor	
☐ Zoned Lighting			Goggles		Projection	
☐ Dimmer	_		☐ PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ ccтv	
☐ Window Treatmen	t	no window	☐ Sprinkler Type		Keyed Entry	
☐ Natural Light			Fire Extinguisher		<ul><li>☐ Access Control</li></ul>	
			-		_	

Program ID: 2.43 Room Name: Salt Scale (Freezer Room) Department:

# NOTES

A. Adjacencies: Direct adjacency 2.41.1 Mixing and 2.44 Moist/Cure

B. Equipment: Large Freezers

C. Processes: temperature, humidity requirement in the freezer.

- 1. Temperature:
- 2. Humidity:
- 3. Acoustic:

D. Test Types: None

E. Environmental conditions: None

# F. General Notes:

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to equipment matrix for power, water, gas requirement etc.

Program ID:	2.44	Room Name:	Moist/Cure Ar	ea		Department:
Quantity:	1	Area (SF):	242	Occupants:	6	Concrete
Function:						
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	D00	R
□ Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	✓ Mold/Moisture	☐ Acrylic PNT	Cove	☐ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	☐ FRP		☐ Glass	
Sealed Concrete	☐ Unistrut	<b>☑</b> CMU	✓ Other	☑ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	✓ Other	mold/moist resist	☐ Other	☑ Door Size	6'x8'
See note D.1	See note D.1	See note D.1	See note D.1	See note D.1	<b>☑</b> Other	
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		✓ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety C	abinet		☐ Deep Sink		☐ Counter Material	
<b>☑</b> Other	direct exhaust	for moisture	✓ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our		<b>☑</b> Other	anudan basa	✓ Tall Shelving	Note G.3
☐ Air Filtration (Supp	oly and/or Exhaust)	1	•	garden hose	☐ Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☑ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	see note E.1
☑ 120V	See note D.2		•		☐ Acoustics	
☑ 208V	See note D.2		☐ Other/Specialty		✓ Humidity	100%
<b>☑</b> 480V	See note D.2		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
<b>☑</b> Other	Building UPS ar	nd Emergency	☐ Toxic	☐ Radioactive	<b>✓</b> Other	Dust collection
	power		Other	explosive		Dust collection
LIGHTING			SAFETY EQUIP./F	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		☐ Safety Shower		☐ White Board	
☑ Task Light	water proof		☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet	☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		✓ Access Control	??

Program ID: 2.44 Room Name: Moist/Cure Area Department:

#### **NOTES**

<u>A. Adjacencies:</u> Direct adjacency to 2.43 Salt Scale (Freezer), 2.41.2 Casting/Molding, 2.45 Freeze/Thaw, 2.41.4 Compression/Flexural Testing and Offices

B. Equipment: Provide a sprinkler system (misting System) with stainless steel tall shelving.

 $\underline{\text{D. Primary Areas}}.$  Moist Cure is made up of one other zone:

2.44.1 Utility Room for Moist

E. Environmental Conditions: Refer to RDS sheet for each area.

1. Temperature: 73.4+/-2F (According to ASTM C 511)

2. Humidity: See RDS 2.413. Acoustic: See RDS 2.41

# F. General Notes:

- 1. Currently this is shared with Cement.
- 2. Temperature and humidity requirements specific to tests performed.
- 3. There is heavy stuff in this room, so space is needed to move things around, as well as room to put things on the floor.
- 4. Shelving to storing samples and must be heavy duty and mold/moisture resistant.

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to equipment matrix for power, water, gas requirement etc.
- 3. Provide heavy duty and mold/moisture resistant shelving that can withstand the environment in the room.

Function:	crete
INTERIOR FINISHES	
FLOORING CEILINGS PARTITIONS WALL FINISH WALL BASE DOOR	
□ Epoxy □ GWB □ GWB ☑ Epoxy ☑ Integral Cove ☑ Hollow Metal	
☐ Sheet Flooring ☐ ACT ☐ Mold/Moisture ☐ Acrylic PNT ☐ Cove ☐ Wood	
☐ Rubber Flooring ☐ Open ☐ Impact Resistant ☐ FRP ☐ Glass	
☑ Sealed Concrete ☐ Unistrut ☑ CMU ☑ Height- 4" ☑ 48in	
☑ Other ☑ Other ☑ Other ☑ Other ☑ Other ☑ Other ☑ Door Size 6'x8'	
Refer note D.1	
DUCTED LAB EQUIPMENT PLUMBING SERVICES CASEWORK	
☐ Fume Hood ☐ Lab Sink ☑ Mobile Casework	
☐ Snorkel ☐ Hand Wash ☐ Fixed Casework	
☐ Canopy ☐ Cup Sink ☑ Casework Material	
☐ Biological Safety Cabinet ☐ Deep Sink ☐ Counter Material	
☐ Other ☐ Other ☐ Other ☐ Other	
HVAC Scullery Sink STORAGE	
Pressurization Floor Sink Tall Cabinets	
☐ Air Change Per Hour ☐ Other ☐ Tall Shelving	
☑ Air Filtration (Supply and/or Exhaust) dust filtration ☐ Peg Board	
POWER AND DATA  LABORATORY SERVICES  Lockers	
☐ Island Bench ☐ Nitrogen ☐ Mobile Cabinets	
☑ Perimeter Bench Duplex @ 24" O.C. ☐ Compressed air SPECIAL REQUIREME	ENTS
☐ Ceiling Mounted ☐ Floor Mounted ☐ Purified Water ☐ Vibration Control	
☑ Emergency ☑ UPS ☐ Vacuum ☑ Temperature see no	te F.2
☑ 120V Refer note D.2 □ Acoustics	
☑ 208V   Refer note D.2   ☐ Other/Specialty   ☑ Humidity   see note	te F.2
<b>☑</b> 480V Refer note D.2 <b>HAZARDOUS MATERIAL STORAGE</b> ☐ Sound Isolation	
☑ Data ☐ Wi-Fi Router ☐ Comm. ☐ Acid/ Corrosive ☑ Flammable ☐ Radioactivity	
☑ Other Building UPS and Emergency ☑ Toxic ☐ Radioactive ☐ Other	
power	
LIGHTING SAFETY EQUIP./FIRE PROTECTION VISUAL	
Ambient Light Leve 60-80 FC Safety Shower White Board	
☑ Task Light ☐ Eyewash ☐ Monitor	
☐ Zoned Lighting ☐ Goggles ☐ Projection	
□ Dimmer □ PPE SECURITY	
□ Occ Sensor □ In-Use Signage □ CCTV	
☑ Window Treatment ☑ Sprinkler Type wet ☐ Keyed Entry	
☑ Natural Light ☑ Fire Extinguisher ☑ Access Control Note ☐	0.2

Program ID: 2.44.1 Room Name: Utility Room for Moist Department:

# **NOTES**

A. Adjacencies: Within 2.45 Freeze/Thaw Testing and directly adjacent to 2.41 Concrete - Open Lab, and Offices

B. Equipment: (1) sonometer, (1) length measurer (ft)

1. Refer to equipment matrix for power, water, gas requirement etc.

C. Processes: None

D. Primary Areas: None

E. Test Types: None

# C. General Notes:

- 1. To be its own room within the 2.45 Freeze/Thaw Testing
- 2. Temperature and humidity requirements specific to tests performed.

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to RDS 2.45

Program ID:	2.45	Room Name:	Freeze/Thaw	Testing		Department:
Quantity:	1	Area (SF):	1,452	Occupants:	6	Concrete
Function:		_				
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	✓ Mold/Moisture	✓ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	<b>☑</b> Open	✓ Impact Resistant	FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		✓ Height- 4"	Cased Opening	
✓ Other	✓ Other	✓ Other	✓ Other	✓ Other	Door Opening	8' x 8'
Note E.1	Note E.1	Note E.1	Note E.1	Note E.1		
DUCTED LAB EQUI	PMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		✓ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety Ca	binet		Deep Sink		Counter Material	
<b>☑</b> Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	\GE
Pressurization	Negative (solve	ents)	☑ Floor Sink		☑ Tall Cabinets	
☐ Air Change Per Hou	ır		☑ Other	Sump pit & pump;	☐ Tall Shelving	
☐ Air Filtration (Suppl	y and/or Exhaust)			see note E2	Peg Board	
POWER AND DATA	\		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench	Refer note C.3		☑ Compressed air	to (4) machines	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	Floor Mounted		☐ Purified Water		☐ Vibration Control	
☑ Emergency	UPS		☐ Vacuum		✓ Temperature	see note D.2
<b>☑</b> 120V	Refer note C.3				☐ Acoustics	
<b>☑</b> 208V	Refer note C.3		☑ Other/Specialty	cooled tap water	✓ Humidity	see note D.2
☐ 480V	Refer note C.3		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>✓</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☑ Other	Freeze Thaw Ed	quipment on	✓ Toxic	☐ Radioactive	<b>✓</b> Other	hoist system
	Emergency Pov	ver	✓ Other	refrigerants		hoist system
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Level	60-80 FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
☐ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatment			✓ Sprinkler Type	see note C4	☐ Keyed Entry	
✓ Natural Light			☑ Fire Extinguisher		☑ Access Control	Note E.2

Program ID: 2.45 Room Name: Freeze/Thaw Testing Department:

#### **NOTES**

<u>A. Adjacencies:</u> Direct adjacency to 2.44 Moist/Cure, 2.41.4 Compression/Flexural Testing, 2.45.2 Length Meas. and Offices

#### B. Areas in Freeze/Thaw:

- 2.45.1 Tempering & Freeze Thaw Tank Systems
- 2.45.2 Exterior reservoir Tank
- 2.45.3 Length Measurement (as its own room within Freeze Thaw Testing)

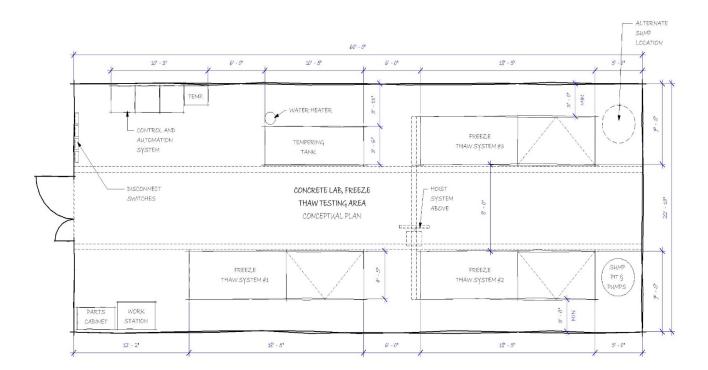
# C. Equipment:

- 1. (3) large freeze-thaw chambers (on back up power, need cooled water for refrigeration). Need exterior access and shaded structure over the condenser units for the freeze-thaw chambers) (HVAC company that fabricated these is called Airmasters). Large tank that provides/stores water to the freeze-thaw chambers/cabinets is recommended by the manufacturer to be outside but still to be confirmed if above ground or below ground
- 2. Provide Hoist above chambers
- 3. Refer to architectural narrative for power, water, gas requirement etc.
- 4. Wet pipe sprinklers located away from high voltage electrical equipment

#### D. General Notes:

- 1. Openness of lab allows for easier maneuvering of large carts to transport items.
- 2. Temperature and humidity requirements specific to tests performed, refer to architectural narrative.
- 3. When test are complete samples are disposed off.
- 4. High voltage equipment that requires clearances due to the voltages.

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to architectural narrative.



Program ID:	2.46	Room Name:	Tool Storage			Department:
Quantity:	1	Area (SF):	121	Occupants:	6	Concrete
Function:	Storage of tools	5		_		
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	✓ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	Open	☑ Impact Resistant	☐ FRP		☐ Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	<b>✓</b> 48in	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☑ Other	✓ Door Size	6'x 8'
Refer Note D.1	Refer Note D.1	Refer Note D.1	Refer Note D.1	Refer Note D.1		
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety C	abinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our		☐ Other		☑ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)				Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	I	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		☐ Temperature	
<b>☑</b> 120V	Refer Note D.2				☐ Acoustics	
□ 208V			☐ Other/Specialty		☐ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	_
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☑ Window Treatmen	t	mirrored sheeting	☑ Sprinkler Type	wet	☑ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		☐ Access Control	

Program ID: 2.46 Room Name: Tool Storage Department:

# NOTES

A. Adjacencies: Directly adjacent to 2.41 Open Lab and 2.42 Polymer Testing

B. Equipment: None

C. Processes: None

D. Test Types: None

E. Environmental Conditions: None.

C. General Notes:

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to equipment matrix for power, water, gas requirement etc.

Program ID:	2.51	<b>Room Name:</b>	Open Lab			<b>Department:</b>
Quantity:	1	Area (SF):	1028.5	Occupancy:	3	Cement
Function:		ab performs physica ent) according to AS			ninerals (e.g., fly	
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	✓ Mold/Moisture	☐ Acrylic PNT	☐ Cove	Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
✓ Other	☐ Other	Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
✓ Snorkel	Note E.5		✓ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			✓ Scullery Sink	Note G.3	STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH m	nin.	☑ Other	Sediment trap @	✓ Tall Shelving	heavy duty
☐ Air Filtration (Supp	oly and/or Exhaus	t)		sink	☐ Peg Board	
POWER AND DAT	Ά		LABORATORY SE	RVICES	☐ Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	✓ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounte	ed	✓ Purified Water	Plumbed Type I	☑ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☑ Vacuum		☑ Temperature	Note E.1
☑ 120V	Note B.1		_		Acoustics	Note E.2
☑ 208V	Note B.1		☐ Other/Specialty		✓ Humidity	Note E.3
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	☑ Other	Silica Dust
			Other			collection
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>✓</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			<b>☑</b> Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		✓ Sprinkler Type	Wet pipe	☑ Keyed Entry	Note G.2
Natural Light			☑ Fire Extinguisher		✓ Access Control	Note G.2

Program ID:2.51Room Name:Open LabDepartment:Quantity:1Area (SF):1028.5Occupancy: 3Cement

**NOTES** 

**A. Adjacencies:** Access to loading dock is not high-priority.

1. Main areas in the Open Lab:

# 2.51.1 Sample Logging/Breakdown:

Access to loading dock

# 2.51.3 Mixing/Time Sets/Autoclaves:

Direct connection to moisture #1

# 2.51.4 Mixing/ASR:

Direct connection to moisture #2, and adjacent to Length Measurement Area and the ovens

# 2.51.5 Mixing/CS/Air Content:

Direct connection to moisture #3

#### 2.51.6 Length Measuring Area:

To the Mixing/Time Sets/Autoclaves area and the Mixing/ASR Testing

# 2.51.7 Compression:

Direct connection to Mixing/CS/Air Content and Moist Room

**2.51.8 Disposal:** Access to loading dock

#### **B. Primary Equipment:**

1. Equipment for the areas within the Open Lab: For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.

# **2.51.1 Sample Logging/Breakdown :** Blender with attachment (30"W x 15"D x 23"H),

Balance High Cap (14"W x 13"D x 5"H)

# 2.51.3 Mixing/Time Sets/Autoclaves:

Mixer, scale, 2 autoclaves on table (58"W x 18"D x 51"H)

#### **2.51.4 Mixing/ASR:**

Mixer, scale, ovens (Qty 3; 34"W x 23"D x 46"H, 28"W x 28"D x 64"H, 28"W x 28"D x 64"H), incubators

#### 2.51.5 Mixing/CS/Air Content:

Mixer, scale, Holding Tank with lime-saturated water in them (currently located in Moist Room, and is accessible by a sealed metal door in the Moist Room's wall).

Flow table – standards specs, cork base (15"W x 15"D x 42"H)

#### 2.51.6 Length Measuring Area:

Compression length equipment

# 2.51.7 Compression:

Compression Machine 300K (30"W x 24"D x 60"H) and cart-mounted holding tank

#### 2.51.8 **Disposal**:

Disposal – 55 gallon drums, collect debris and cart to removal point.

# C. Processes in the lab:

- 1. Paste/mortar mixing stations
- 2. Testing stations (e.g., set time, length, compressive strength, fineness)
- 3. Mold prep stations for cube molds and bar molds
- 4. Cleaning stations (i.e., sinks) for mixer bowls, paddles, etc.
- 5. Bulk material and sample storage

Program ID:	2.51	Room Name:	Department:		
Quantity:	1	Area (SF):	1028.5	Occupancy: 3	Cement

#### D. Test:

#### 2.51.3 Mixing/Time sets/Autoclaves

2.51.3.a Sample Holding

# 2.51.4 Mixing/ASR:

2.51.4.a Sample Holding

**2.51.5 Mixing/CS/Air Content:** Compression stress test, air content (finess) test

2.51.5.a Sample Holding

2.51.6 Length Measuring Area: Length compression Test

**2.51.7 Compression:** Forming of the Compression strength cubes and testing.

#### E. Environmental Conditions:

- 1. Temperature: Not extremes, but the Cement Lab does require specific temperature and humidity controls/tolerances 23°C ±4.0 °C
- 2. Humidity: least 50% relative humidity
- 3. Acoustic: NC 36
- 4.\_Moist rooms/cabinets must be 23°C±2.0 °C and minimum 95% RH.
- 5. Dust Collection (silica):

2.51.3 Mixing/Time Sets/Autoclaves : Provide dust collection via snorkels.
 2.51.4 Mixing/ASR: Provide dust collection via snorkels.
 2.51.5 Mixing/CR/Air Content: Provide dust collection via snorkels.

**2.51.8 Disposal:** Provide Canopy/Hood for Silica Dust Collection

# F. General Notes:

- 1. All testing is hands-on and test specimens are stored in a moist room\* accessible from within the lab space.
- 2. Access to loading dock is not high-priority, since most samples and bulk materials received can be easily transported on a cart by in-house mail staff.
- 3. Seasonal volume fluctuations.
- 4. General notes per Primary areas:

#### 2.51.1 Sample Logging/Breakdown

- 1. Receive/log/sort: 5 gallon drums, 25 cement samples, 25 fly ash sources, 15 sources of slag & micro silicas. Min. sample : 6lb powder
- 2. Approximately 600 samples are tested per year (each sample is a minimum 6lbs.)
- 3. samples are weighed then stored in mason jars and then moved into the labs for testing
- 4. Avoid scale interference due to air movement needed for dust control.
- 5. Silica Dust Collection via canopy over workstations

# C. Storage:

- 1. Includes its own Sample Storage within Sample Logging/Breakdown (2.51.1.a)
- 2. More vertical storage rack space for sample storage. Offset space for bulk material storage (e.g., 5-gal buckets, bags of cement, boxes)

# D. Sample Prep:

Air block for balances to reduce fluctuations in weights

Program ID:	2.51	Room Name:	Department:		
Quantity:	1	Area (SF):	1028.5	Occupancy: 3	Cement

# 2.51.3 Mixing/Time Sets/Autoclaves

- 1. Mixing Stations: Provide heavy duty casework
- 2. Provide each station to have work spaces and sample holding.
- 3. Wash Stations:
  - a) Clean equipment.
  - b) Sediment removal.
  - c) Liners that can be removed/cleaned/replaced.
  - d) Stainless steel plate counter tops.
- 4. Mixers on top of the tables, and other equipment could be moved as you use them from the floor to the bench, etc.
- 5. At Mixing workstation: Provide a carboy of de-ionized water at each workstation

# 2.51.4 Mixing/ASR

- 1. Mixing Stations: Provide heavy duty casework.
- 2. Provide each station to have work spaces and sample holding.
- 3. Wash Stations:
  - a) Clean equipment.
  - b) Sediment removal.
  - c) Liners that can be removed/cleaned/replaced.
  - d) Stainless steel plate counter tops.
- 4. At Mixing workstation: Provide a carboy of de-ionized water at each workstation

# 2.51.5 Mixing/CR/Air Content

- 1. Mixing Stations: Provide heavy duty casework
- 2. Provide each station to have work spaces and sample holding.
- 3. Wash Stations:
  - a) Clean equipment
  - b) Sediment removal
  - c) Liners that can be removed/cleaned/replaced
  - d) Stainless steel plate counter tops
- 4. Mixers on top of the tables, and other equipment could be moved as you use them from the floor to the bench, etc.

#### 2.51.6 Length Measured Area

- 1. Mixing Stations: Provide heavy duty casework.
- 2. Provide each station to have work spaces and sample holding.
- 3. Wash Stations:
- a) Clean equipment.
- b) Sediment removal.
- c) Liners that can be removed/cleaned/replaced.
- d) Stainless steel plate counter tops.

# 2.51.7 Compression Area:

- 1. Provide mixing workstation
- 2. Provide each station to have work spaces and sample holding.

# **2.51.8 Disposal:** None.

Program ID:	2.51	Room Name:	Open Lab			Department:
Quantity:	1	Area (SF):	1028.5	Occupancy:	3	Cement

- 1. Final interior finishes to be selected by the Design Team selected for this project. Due to the high humidity requirements, the Interior Finishes of the lab area(s) need to be of a mold and moisture resistant material like sealed concrete or tile, not drywall or sheet flooring
- 2. Refer to Security narrative.
- 3. Provide one scullery sink in each of these areas 2.51.3 Mixing/Time set/Autoclaves, 2.51.4 Mixing/ASR, 2.51.5 Mixing/CS/Air Content area.

Program ID:	2.52	<b>Room Name:</b>	Moist			Department
Quantity: Function:	1	Area (SF):	121	Occupancy:	3	Cement
runction:		TN	ITERIOR FINIS	SUEC		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	
Epoxy	GWB	GWB	✓ Epoxy	✓ Integral Cove	☐ Hollow Metal	`
☐ Sheet Flooring	☐ ACT	✓ Mold/Moisture	☐ Acrylic PNT	Cove	☐ Wood	
Rubber Flooring	☐ Open	☐ Impact Resistant	•	_ cove	Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	☑ Other	☑ Other	☑ Other	☑ Other	☑ Door Size	
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	<b>2</b> 2001 3120	
Note G.1	Note G.1	Note G.1	Note 3.1	Note G.1		
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			_ ☐ Hand Wash		_ ☐ Fixed Casework	
☐ Canopy			Cup Sink		_ ☐ Casework Material	
☐ Biological Safety (	Cabinet		□ Deep Sink		☐ Counter Material	
☐ Other			✓ Floor Drain		_ ☐ Other	
HVAC			☐ Scullery Sink		STORA	GE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our		- ☑ Other	Sediment trap @	■ Tall Shelving	
☐ Air Filtration (Sup		)	-	sink	☐ Peg Board	
POWER AND DAT	• •		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☑ Compressed air		SPECIAL REQU	IREMENTS
☑ Ceiling Mounted	☐ Floor Mounte	d	✓ Purified Water	DI water	☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		☑ Temperature	Note E.1
☑ 120V	Note C.2	Note B.1	-		☐ Acoustics	
<b>☑</b> 208V	Note C.2	Note B.1	☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	☐ Other	
			Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	l VISU#	<b>AL</b>
Ambient Light Leve	60-80fc		☐ Safety Shower		☐ White Board	
☐ Task Light			Eyewash	-	☐ Monitor	
☐ Zoned Lighting			Goggles		Projection	
☐ Dimmer			☐ PPE		SECUR	TY
Occ Sensor			☑ In-Use Signage		_ □ сстv -	
☐ Window Treatmen	t		Sprinkler Type		✓ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		☐ Access Control	

Program ID:2.52Room Name:MoistDepartmentQuantity:1Area (SF):121Occupancy:3Cement

# **NOTES**

# A. Adjacencies:

- 1. Refer to RDS 2.51 Open Lab.
- 2. Refer to the adjacency diagrams and concept diagrams.

# **B. Primary Equipment:**

# Moist cabinets

1. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.

# C. Processes in the lab:

- 1. Paste/mortar mixing stations
- 2. Testing stations (e.g., set time, length, compressive strength, fineness)
- 3. Mold prep stations for cube molds and bar molds
- 4. Cleaning stations (i.e., sinks) for mixer bowls, paddles, etc.
- 5. Bulk material and sample storage.

# D. Test Description: N/A

# E. Environmental Conditions:

- 1. Temperature: Moist rooms/cabinets must be 23°C±2.0 °C
- 2. Humidity: minimum 95% RH.

# F. General Notes:

1. Moist room is currently shared with the Concrete Lab, but will **NOT** in the new facility; the use of commercially-available moist cabinets may be an alternative option depending on capacities available. Client to provide manufacturer and model number for moisture curing cabinet to confirm electrical and utility needs.

# G. RDS Notes:

1. Final interior finishes to be selected by the Design Team selected for this project. Due to the high humidity requirements, the Interior Finishes of the lab area(s) need to be mold and moisture resistant material.

Program ID:	2.53	Room Name:	Air Permea	bility		Department
Quantity:	1	Area (SF):	121	Occupancy:	3	Cement
Function:	Air permeat	oility/fineness T	est			
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	<b>☑</b> GWB	☐ GWB	✓ Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	<b>☑</b> Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	☑ Door Size	min. 42" x8' H
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
DUCTED LAB EQU	IPMENT		PLUMBING SERVI	CES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☑ Mobile Casework	carts
☐ Snorkel			☐ Hand Wash		<b>✓</b> Fixed Casework	base cabinets
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			✓ Scullery Sink		STORA	\GE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6-8 ACH		<b>☑</b> Other	Sediment trap @ sink. Refer note	☑ Tall Shelving	heavy duty
☐ Air Filtration (Supp	oly and/or Exhaust	)		A3	Peg Board	
POWER AND DAT	A		LABORATORY SEI	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench	Duplex @ 24" (	O.C.	☑ Compressed air	Note G.2	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☑ Purified Water	DI water	☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		□ Vacuum		✓ Temperature	
☑ 120V	Note B.2				☐ Acoustics	
<b>☑</b> 208V	Note B.2		☑ Other/Specialty	Note	☑ Humidity	
☑ 480V	Note B.2		HAZARDOUS MAT	ERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	✓ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			Toxic	☐ Radioactive	Other	
			Other			
LIGHTING			_	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		Safety Shower		☐ White Board	
☐ Task Light			Eyewash		Monitor	
☐ Zoned Lighting			☑ Goggles		☐ Projection	
☐ Dimmer			PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
Window Treatmen			☑ Sprinkler Type	Wet pipe	☐ Keyed Entry	
☑ Natural Light	if possible		✓ Fire Extinguisher		☐ Access Control	

Program ID: 2.53 Room Name: Air Permeability Department Quantity: 1 Area (SF): 121 Occupancy: 3 Cement

# **NOTES**

# A. Adjacencies:

- 1. Refer to RDS 2.51 Open Lab.
- 2. Refer to the adjacency diagrams and concept diagrams.

#### B. Primary Equipment:

- 1. Ultrasonic cleaner (approximately 1x1x1 ft), Blaine apparatus (approximately 1x1x1.5 ft), Scale (approximately 1x1x1 ft), Hot plate (approximately 1.5x1.5x0.5 ft)
- 2. Air Permeability Workstation should be adjacent to faucet and sink. The faucet is fitted with a special piece to regulate flow per test requirements.
- 2. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.

# C. Processes in the lab:

- 1. Paste/mortar mixing stations
- 2. Testing stations (e.g., set time, length, compressive strength, fineness)
- 3. Mold prep stations for cube molds and bar molds
- 4. Cleaning stations (i.e., sinks) for mixer bowls, paddles, etc.
- 5. Bulk material and sample storage.

# D. Test Description:

325 Test- work area zone-

# E. Environmental Conditions:

- 1. Temperature: Not extremes, but the Cement Lab does require specific temperature and humidity controls/tolerances 23°C  $\pm 4.0$  °C
- 2. Humidity: least 50% relative humidity
- 3. Acoustic: NC 36
- 4. Dust collection:

# F. General Notes:

- 1. The Air Permeability lab zone/area should be separate from the rest of the areas (i.e., those requiring high-humidity).
- 4. The scale is very sensitive so air movement can be problematic.
- 3. Air Permeability Workstation should be adjacent to faucet and sink. The faucet is fitted with a special piece to regulate flow per test requirements.

- 1. Final interior finishes to be selected by the Design Team selected for this project. This lab can accommodate a more conventional office interior finish.
- 2. Provide compressed air at multiple locations.

Program ID:	2.61	Room Name:	Open Lab			Department:
Quantity:	1	Area (SF):	726	Occupants:	4	Soils
Function:	The Soils Lab a material for high		erforms various testi	ng to determine the	engineering propert	ies of the
		•	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	☑ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	Unistrut	✓ CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	✓ Other	☑ Other	<b>☑</b> Other	✓ Other	☑ Door Size	Double- 6'x8'H
Note G.1	Note G.1	wall protection	Note G.1	Note G.1		
<b>DUCTED LAB EQU</b>	JIPMENT		PLUMBING	S SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☑ Fixed Casework	Base cabinets
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☑ Scullery Sink	deep sink	STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our		☑ Other	Sediment trap @	✓ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust	)		sink	☐ Peg Board	
POWER AND DAT	Α		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen	-	☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C., type: Direct	✓ Compressed air	air hose	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mountee	d	☑ Purified Water	DI water	✓ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☑ Vacuum	Note F.2	_ ✓ Temperature	Note E.1
☑ 120V	Refer note B.1		_		✓ Acoustics	Note E.2
<b>☑</b> 208V	Refer note B.1	-	Other/Specialty		☑ Humidity	Note E.3
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	✓ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	✓ Other	Dust collection
			Other			Dust concension
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	70-80 FC		Safety Shower		☐ White Board	
☐ Task Light			Eyewash		☐ Monitor	
☐ Zoned Lighting			✓ Goggles		Projection	
☐ Dimmer			PPE		SECUR	RITY
Occ Sensor			In-Use Signage		ССТУ	
☐ Window Treatmen	t		Sprinkler Type	wet	Keyed Entry	
✓ Natural Light			☑ Fire Extinguisher		Access Control	Note G.2

Program ID:	2.61	Room Name: Open Lab		Department
Quantity:	1	Area (SF): 726	Occupants: 4	Soils

# **NOTES**

A. Adjacencies: Open lab direct connection to the Breakdown/ Storage and dedicated loading dock. Close proximity to the EFA Room and Vibratory Room.

#### **B.** Equipment:

- 1. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.
- 2. List of the areas in the open labs:

#### 2.61.1 Classification Area:

oven (Qty 1), hydrometer (50"W x 14"D x 30"H, needs access to a sink for water baths and drain), desiccator (for gravity testing -- used for the gravity test for soils), client indicated that they are expecting new equipment, like a maryann chamber.

#### 2.61.2 Conslidometers area:

Equipment (Machines 1&2 are on table w/ dimensions 33"W  $\times$  36"D  $\times$  73"H) (Machines 3-7 span dimensions 105"W  $\times$  36"D  $\times$  73"H) - Soil is crushed slowly to these the soil properties. Access need on both sides, pneumatic control.

# 2.61.3 Equipment Zone/Small Shelby Tube Area

Small Shelby Tube: compression test (Farnell 32"W x 24"D x 83"H) (Soil Test 20"W x 11"D x 31"H), pressurized test.

#### 2.61.5 Compression Area

# 2.61.7 Triaxial Area:

Geocomp LoadTrac & FlowTrac-II (42"W x 29"D x 83"H), Geocomp LoadTrac (18"W x 21"D x 48"H), Geotac Sigma-1 (32"W x 16"D x 50"H), Future 12" Large Capacity Triaxial Frame & Pumps (42"W x 29"D x 83"H), crane - (future to lift heavier samples; don't want it to be in the open lab at all times, maybe large door to the vibratory lab).

3. Dust collection needed in these area.

#### C. Primary Areas:

- 1. In this open Lab we have these areas
  - 2.61.1 Classification
  - 2.61.2 Consolidometers
  - 2.61.3 Equipment Zone/ Small Shelby Tube Area
  - 2.61.4 Write-up Area
  - 2.61.5 Compression Area
  - 2.61.7 Triaxial Area

# D. Test Description:

- 1. Shelby tube processing, i.e. triaxial, consolidation, unconfined compression and moisture determination.
- 2. Soils classifications, i.e. grain-size analysis, Atterberg Limits, moisture-density testing, specific gravity.
- 3. Soil subgrade modification/stabilization, base course stabilization, load bearing capacity (IBV).
- 4. MSE Wall select fill testing.
- 5. Hydraulic conductivity determination, intact rock core compression testing.

Program ID:	2.61	Room Name: Open Lab		Department
Quantity:	1	Area (SF): 726	Occupants: 4	Soils

# E. Test Types:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

# F. General Notes:

- 1. Need heavy consistent vacuum for specific gravity (SPG) absolute zero.
- 2. Classification Area: These test do not generate a lot of dust. Cleaner space required.
- 3. Classification Area: Lots of glassware and tools, provide adequate storage

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to the Narratives for additional information.

Program ID:	2.62	Room Name:	Breakdown Ro	om		Department:
Quantity:	1	Area (SF):	847	Occupants:	4	Soils
Function:	Log-in of all sa	mples		_		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB		✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	Cased Opening	6'W x 8'H
<b>☑</b> Other	<b>✓</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	rolling door-
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		6'Wx8'H
DUCTED LAB EQU	IIPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel	-		☐ Hand Wash		☑ Fixed Casework	
☐ Canopy	-		Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		Deep Sink		☐ Counter Material	
Other	dust not to be	drawn upwards	☐ Floor Drain		☐ Other	
HVAC			✓ Scullery Sink	deep	STOR	\GE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our 6-8 ACH		☑ Other	Sediment trap @	☑ Tall Shelving	heavy duty
☐ Air Filtration (Supp	oly and/or Exhaust	)	•	sink	Peg Board	
POWER AND DAT	Α		LABORATOR	RY SERVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench	Duplex @ 24" (	o.c.	☑ Compressed air	air hose	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		<b>☑</b> Temperature	Note E.1
<b>☑</b> 120V	Note B.1				✓ Acoustics	Note E.3
□ 208V			☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	☑ Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	<b>☑</b> Other	Dust collection
			Other			Dust collection
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	70-80 FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☑ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Control	Note G.2

Program ID:	2.62	Room Name: Bre	eakdown Room	ı		Department:
Quantity:	1	Area (SF): 847	7	Occupants:	4	Soils

#### NOTES

- A. Adjacencies: Adjacency to open lab, vibratory lab, and EFA Room
- B. Equipment: storage shelves to store drying trays.
- 1. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.
- C. Area within Breakdown Room:

2.62.1 Storage

2.62.2 Proctor Area

2. Proctor and stiffness test- Dedicated island bench workstation

#### D. Test Description:

1. Proctor Area: Proctor and stiffness test

## E. Room Requirements:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

#### F. General Notes:

- 1. Breakdown: Logging in Station-computer station for logging in soil samples. Most soil samples comes in bags.
- 2. Breakdown: 2-3 tiers of shelving. Design team to provide lifting solutions to get material loaded on shelves.
- 3. Breakdown: Provide mesh mats for slip resistance.
- 4. Provide area under the island bench for storage of samples. Tall shelves near to the workstation for storage.
- 5. Proctor Area: Provide a dedicated island bench workstation

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to the Narratives for additional information.

Program ID:	2.63	Room Name:	<b>EFA Room</b>			<b>Department:</b>
Quantity:	1	Area (SF):	121	Occupants:	4	Soils
Function:	Space stores	the Erosion Fine app	aratus equipment(E	FA), and some area	for storage	
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	<b>☑</b> GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	✓ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	<b>✓</b> Other	☑ Other	<b>☑</b> Other	☑ Other	✓ Door Size	Double- 6'x8'H
Note G.1	Note G.1	Note G.1	water resistant	Note G.1		
DUCTED LAB EQU	IIPMENT			G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink	-	Mobile Casework	
Snorkel			☐ Hand Wash		☑ Fixed Casework	Base; wall cabinet
☐ Canopy			- 🔲 Cup Sink		Casework Material	<u> </u>
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			✓ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6-8 A	СН	✓ Other	Sediment trap @	☑ Tall Shelving	for samples
☐ Air Filtration (Supp	oly and/or Exhaus	it)		sink	☐ Peg Board	
POWER AND DAT	Α		LABORATO	RY SERVICES	☐ Lockers	
☐ Island Bench	Power reals a	oove	□ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24"	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
Ceiling Mounted	☑ Floor Mount	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	Refer note B.	L	_		Acoustics	Note E.3
<b>☑</b> 208V	Refer note B.	L	☑ Other/Specialty	Note G.3	✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			Toxic	☐ Radioactive	☐ Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	70-80FC		Safety Shower		☐ White Board	
☐ Task Light			Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			PPE		SECUR	ITY
☐ Occ Sensor			☐ In-Use Signage		ССТУ	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet	Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Control	Note G.2

Program ID:	2.63	Room Name: EFA Room		Department
Quantity:	1	Area (SF): 121	Occupants: 4	Soils

#### NOTES

A. Adjacencies: Refer to RDS 2.61

- B. Equipment: EFA equipment (94"W x 40"D x 96"H, looks like a fish tank)
- 1. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.
- 2. NOTE: In the existing space near the EFA are some equipment not be utilized for any of the existing test .
  - Compression machine used to crush rock cores. still in working condition in main Lab
  - All equipment to be relocated

#### C. Area within EFA Room:

2.63.1 Shelby Tube prep Area

D. Test Description: N/A

# E. Test Types:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

#### F. General Notes:

- 1. Room needs to be isolated from the main lab because it generates significant noise and generates a lot of heat. Maintain clearances around the unit to allow for proper equipment ventilation.
- 2. Provide mesh mats for slip resistance.

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to the Narratives for additional information.
- 3. Provide hot and cold water to the EFA equipment

Program ID:	2.64	Room Name:	Open Lab - Vil	oratory Lab		Department:
Quantity:	1	Area (SF):	121	Occupants:	2 min.	Soils
Function:	Compacting tes	st, resistivity test, p	roctor and stiffness	test.		
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	✓ Epoxy	☐ Integral Cove	✓ Hollow Metal	
$\square$ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	<b>☑</b> Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Door Size	Double- 6'x8'H
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		Mobile Casework	
☑ Snorkel	Note G.3		Hand Wash		Fixed Casework	Base and wall
Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		✓ Counter Material	
<b>☑</b> Other			Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	AGE
✓ Pressurization	Negative		☐ Floor Sink		Tall Cabinets	
☑ Air Change Per Ho			Other		☑ Tall Shelving	
☑ Air Filtration (Supp	<u> </u>	)			Peg Board	
POWER AND DAT	Α			RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (		☑ Compressed air	air hose	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	Note B.1				✓ Acoustics	Note E.2
<b>☑</b> 208V	Note B.1		☐ Other/Specialty		☑ Humidity	Note E.3
☐ 480V				TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic☐ Other	☐ Radioactive	☑ Other	Dust collection system
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VISU	
Ambient Light Leve	70-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer	-		PPE		SECUR	ITY
☐ Occ Sensor	-		☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet	☑ Keyed Entry	Note G.2
☐ Natural Light			☑ Fire Extinguisher		☐ Access Control	

Program ID:	2.64	Room Name: Open Lab	- Vibratory Lab	Department
Quantity:	1	Area (SF): 121	Occupants: 2 min.	Soils

#### **NOTES**

- A. Adjacencies: adjacent to Breakdown room
- B. Equipment: vibration table (30"W x 30"D x 21"H) and gantry crane or hydraulic table
- 1. For additional equipment, refer to equipment matrix for power, water, gas requirements, etc.

#### C. Tests:

- 1. Resistivity test- vibration sensitive test. Dedicated island bench workstation
- D. Test Description: N/A

#### E. Environmental Conditions:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

#### F. General Notes:

- 1. The vibratory table generates a lot of noise and some dust.
- 2. Most of the soil samples are air dried, provide adequate countertop for this activity. Need 2-3 tiers of shelving for storage of equipment for the vibratory testing.
- 3. Provide mesh mats for slip resistance.
- 4. Provide area under the island bench for storage of samples. Tall shelves near to the workstation for drying trays etc.

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to the Narratives for additional information.
- 3. Side draw would be preferable to a snorkel if there is a difference. It should be located near vibratory table.

Program ID:	2.71	Room Name:	Instrument Lab			Department:
Quantity:	1	Area (SF):	726	Occupancy:	2	Chemistry
Function:						
		:	INTERIOR FINISH	IES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	<b>☑</b> Epoxy	☐ Integral Cove	✓ Hollow Metal	
✓ Sheet Flooring	✓ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	Unistrut	<b>☑</b> CMU		☐ Height- 4"	☐ Cased Opening	
Other	☐ Other	Other	Other	Other	<b>✓</b> Door Size	6' X 8'
			BUILDING SERVIC	ES		
DUC	TED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
✓ Fume Hood	Note B.2		☑ Lab Sink	Qty:1	✓ Mobile Casework	
✓ Snorkel	for future equi	pment	✓ Hand Wash		☑ Fixed Casework	
☐ Canopy			✓ Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			✓ Floor Drain	for chiller	Other	
	HVAC		Scullery Sink		STORA	\GE
Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per Ho	our 6	ACH	✓ Other	Sediment trap @	☐ Tall Shelving	
☑ Air Filtration (Sup	ply and/or Exhaust	)	-	sink	Peg Board	
Р	OWER AND DA	TA	LABORATO	RY SERVICES	Lockers	
✓ Island Bench			✓ Nitrogen	G.5	☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24"	O.C.	☑ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	b	☐ Purified Water		✓ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	
☑ 120V	Computer		-		Acoustics	
<b>☑</b> 208V	Electric Fluxer		✓ Other/Specialty	Note G.4, G.5	☐ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	☑ Comm.	✓ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	☐ Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Level:			✓ Safety Shower	Qty: 1	✓ White Board	
☑ Task Light			☑ Eyewash	at all sinks	✓ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
☑ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet	☐ Keyed Entry	_
☐ Natural Light			■ Fire Extinguisher		✓ Access Control	

Program ID:	2.71	Room Name:	Instrument Lab		Department:
Quantity:	1	Area (SF):	726	Occupancy: 2	Chemistry

### **NOTES**

### A. Adjacencies:

Refer to the adjacency diagrams.

#### **B.** Equipment:

- 1. Analytical Balances- (vibration sensitive). Refer to equipment matrix.
- 2. Refer to RDS for 2.71.1.

#### C. Processes associated with the lab area/ department:

- 1. X-ray Fluorescence Spectroscopy (XRF)
- 2. Fourier Transform Infrared Spectroscopy (FTIR)
- 3. Gas Chromatography (GC)
- 4. XRF sample preparation using a high temperature oven fluxer.

#### D. Primary Areas: Areas included sample prep lab

#### E. Environmental Conditions:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

#### F. General Notes:

- 1. Lab needs to be close to central storage of compressed gases to reduce length of piping to instruments.
  - Space not required to be near loading dock. High bays not important.
- 2. Space must have appropriate electrical access, ample bench space, internet connections, gas/water availability, ventilation, etc. for potential new instrumentation.
- 3. Drain and separate space for XRF support equipment (UPS and water chiller). UPS generates a considerable amount of ambient heat. Chiller needs a floor drain.
- 4. No dust collection is required in the Chemistry Department.

- 1. Refer to equipment matrix for power, water, gas requirement etc.
- 2. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 3. Provide base cabinets under the Island Bench and perimeter with base cabinets below.
- 4. Natural gas line is not required, but a single bunsen burner would be beneficial for some sample preparation.
- 5. The instrument lab currently requires or will require new instrumentation nitrogen, helium, hydrogen, and P10 gases. The specific gases are not needed at the fume hoods. All specialty gases should be delivered by compressed cylinder and should be ultra-high purity.

Program ID: Quantity:	2.71.1	Room Name: Area (SF):	Instrument Lab -	Sample Prep Lab Occupancy:	2	Department: Chemistry
Function:						
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ Cased Openings	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☐ Door Size	
			BUILDING SERVIO	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
✓ Fume Hood	Note B.2		✓ Lab Sink	Qty:1	☐ Mobile Casework	-
☐ Snorkel			■ Hand Wash	2-7	- ☑ Fixed Casework	
☐ Canopy			☐ Cup Sink		Casework Material	
✓ Biological Safety	 Cabinet		_		Counter Material	
☐ Other			☐ Floor Drain		Other	
- other	HVAC		☐ Scullery Sink		STORA	\GE
✓ Pressurization	Note G.2		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per H	our Note G.2	2	☑ Other	Sediment trap @	_ ☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)	-	sink	Peg Board	
P	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
☐ 120V			Other/Specialty		✓ Acoustics	Note E.3
□ 208V			-		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
☐ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
<b>☑</b> Other	See RDS 2.71		☐ Toxic	☐ Radioactive	<b>☑</b> Other	See RDS 2.71
			☑ Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light:			✓ Safety Shower	Qty:1	☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	_ ☐ Monitor	
Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor	-		- ☐ In-Use Signage		□ сстv	
☐ Window Treatmen	nt		☐ Sprinkler Type		_ ☐ Keyed Entry	
☐ Natural Light			- ☑ Fire Extinguisher		Access Control	
<b>✓</b> Other	See RDS 2.71		- ☑ Other	See RDS 2.71	<b>☑</b> Other	See RDS 2.71

Program ID:	2.71.1	Room Name:	Instrumer	nt Lab - Sample Prep Lab	Department:
Quantity:	1	Area (SF):	242	Occupancy: 2	Chemistry

#### NOTES

#### A. Adjacencies:

Refer to the adjacency diagrams

#### B. Equipment:

- 1. Refer to equipment matrix.
- 2. Fume hood: One fume hood for the glass bead fluxer and one for the electric fusion. The fume hood for the glass bead fluxer needs to be deeper than 30", and sash height must consider how the glass bead fluxer is opened. Both fume hoods require 240v outlets for the instruments inside them.

#### C. Processes:

1. Refer to the RDS for each area.

#### D. Primary Areas:

1. None

#### E. Environmental Conditions:

Temperature: Refer to RDS 2.71
 Humidity: Refer to RDS 2.71
 Acoustic: Refer to RDS 2.71

4. Dust collection:

#### F. General Notes:

1. None

- 1. Refer to the RDS 2.71 Open lab for interior finishes, unless noted otherwise.
- 2. Refer to the RDS 2.71, unless noted otherwise.
- 3. Refer to equipment matrix for power, water, gas requirement etc.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.

Program ID:	2.71.2	Room Name:	Instrument Supp	ort		Department:
Quantity:	1	Area (SF):	121	Occupancy	2	Chemistry
Function:		_		_		_
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOO	R
<b>□</b> Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	Cased Openings	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☐ Door Size	
			BUILDING SERVI			
	ED LAB EQUIP	MENT		G SERVICES	CASEW	ORK
✓ Fume Hood			☑ Lab Sink 	Qty:1	Mobile Casework	,
Snorkel			Hand Wash		Fixed Casework	
☐ Canopy	-		Cup Sink	-	Casework Material	
☑ Biological Safety	Cabinet		Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		☐ Other	
	HVAC		Scullery Sink		STORA	\GE
Pressurization	Note G.2		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per H	o <sub>ur</sub> Note G.2	2	☑ Other	Sediment trap @	☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)		sink	☐ Peg Board	
P	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
☐ 120V			Other/Specialty		✓ Acoustics	Note E.3
□ 208V			-		_ ☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
☐ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
<b>☑</b> Other	See RDS 2.71		☐ Toxic	Radioactive	☐ Other	
			<b>☑</b> Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light:			☑ Safety Shower	Qty:1	☐ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	_ ☐ Monitor	
☐ Zoned Lighting			Goggles		□ Projection	
☐ Dimmer			□ PPE	-	SECUR	ITY
☐ Occ Sensor			- ☐ In-Use Signage	-	□ ccтv	
☐ Window Treatmen	t		☐ Sprinkler Type		_ ☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher		Access Control	
✓ Other	See RDS 2.71		_ ☑ Other	See RDS 2.71	_ ☑ Other	See RDS 2.71

Program ID:	2.71.2	Room Name:	Instrument Support		Department:
Quantity:	1	Area (SF):	121	Occupancy: 2	Chemistry

### NOTES

## A. Adjacencies:

Refer to the adjacency diagrams.

#### **B.** Equipment:

1. Refer to equipment matrix.

## C. Processes:

1. Refer to the RDS for each area.

#### D. Primary Areas:

1. None

#### E. Environmental Conditions:

Temperature: Refer to RDS 2.71
 Humidity: Refer to RDS 2.71
 Acoustic: Refer to RDS 2.71

# F. General Notes:

1. None

- 1. Refer to the RDS 2.71 Open lab for interior finishes, unless noted otherwise.
- 2. Refer to the RDS 2.71, unless noted otherwise.
- 3. Refer to equipment matrix for power, water, gas requirement etc.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.

Program ID:	2.72	Room Name:	Bituminous Lab (	(QC)		Department:
Quantity:	1	Area (SF):	2178	Occupancy	2	Chemistry
Function:		_		_		
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
<b>☑</b> Epoxy	<b>☑</b> GWB	<b>☑</b> GWB	<b>□</b> Ероху	☑ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	<b>☑</b> Other	Other	Other	Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1			
			BUILDING SERVI	CES		
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEWORK	
✓ Fume Hood	Note B.2		☑ Lab Sink		✓ Mobile Casework	
☐ Snorkel			☑ Hand Wash		✓ Fixed Casework	Store Sample
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORAGE	
✓ Pressurization	Note G.2		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per Ho	our Note G.2		☑ Other	Sediment trap @	_ ☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	t)	-	sink	✓ Peg Board	
POWER AND DAT	Ά		LABORATORY SE	RVICES	Lockers	
☑ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	0.C.	☑ Compressed air	cylinders	SPECIAL REQUIRE	MENTS
☐ Ceiling Mounted	☑ Floor Mounte	d	✓ Purified Water	Note G.7	☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer		_		☐ Acoustics	
☑ 208V	Future Equipm	ent	☑ Other/Specialty	CO2, Note G.6	✓ Humidity	Note E.2
<b>✓</b> 480V	Future Equipm	ent	HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	✓ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
LIGHTING			SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	2		☑ Safety Shower	Qty-2	☐ White Board	
☑ Task Light			<b>☑</b> Eyewash	at all sink	☐ Monitor	
☐ Zoned Lighting			✓ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	wet	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		☑ Access Control	
Other			☐ Other		☑ Other	

Program ID:	2.72	Room Name:	Bituminous Lab (QC)		Department:
Quantity:	1	Area (SF):	2178	Occupancy: 2	Chemistry

**NOTES** 

<u>A. Adjacency:</u> Receives samples/materials from all other labs. Central location optimal. Refer to the adjacency diagrams.

#### **B.** Equipment:

- 1. Refer to equipment matrix.
- 2. Fume Hood:
  - a) Size: Fume Hoods are 48" W x 30" D- Qty:1
    - FH Utilities: Natural gas(NG), 3- 120V duplex electrical outlets(located at the back of FH), compressed air(CA), 1 specialty gas CO<sub>2</sub>, Vacuum,
  - b) Size: Fume Hoods are 48" W x 30" D- Qty:1
    - FH Utilities: Natural gas(NG), 3- 120V duplex electrical outlets, compressed air(CA), 1 specialty gas CO2, Vacuum.

## C. Processes associated with the lab area/ department:

- 1. PG Asphalt Processes:
  - a. physical testing of products
  - b. Bending/stretching/folding/twisting of residues
  - c. Ductility machines 2 machines for testing different temperatures
  - d. Cut back testing close to emulsifiers.
- 5. Improve lab visibility. Line of sight throughout lab. Clear above bench work areas.
- 6. Seasonal demand/processes.
- 7. Shared central water baths.
- 8. Cleaning oven to burn off asphalt residues
- 9. Crack-fill/seal Process (hot pour):
  - a. prep area/hood
  - b. Testing area
- 11. Shared refrigerator chemical storage. Refer/freezer.
- 12. Freeze/thaw freezer. Adjacent to sealer process.
- 13. Solvent cleaning/Solvent storage room.
- 14. Clean/dirty baths away from other areas.
- 15. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.

#### D. Primary Areas within the Lab:

- **2.72.1** Sort Log
- **2.72.2** Prep Area,
- **2.72.3** Hot Pour Sealer,
- 2.72.4 Emulsified Asphalt
- **2.72.5** Cutback Testing,
- **2.72.6** PG Asphalt,
- 2.72.7 Sample Store,
- 2.72.8 Naphtha Bath

#### E. Environmental Conditions:

- 1. Temperature: 72-75 +/-2F
- 2. Humidity: 23-55%RH+/- 5%
- 3. Acoustic: NC-36

Program ID:	2.72	Room Name:	Bituminous Lab (QC)	Bituminous Lab (QC)	
Quantity:	1	Area (SF):	2178	Occupancy: 2	Chemistry

#### F. General Notes:

- 1. Refer to equipment matrix for power, water, gas requirement etc.
- 2. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 3. Provide base cabinets under the Island Bench and perimeter with base cabinets below.
- 4. Provide floor drain below emergency showers, confirm requirements relating to the Plumbing building codes. This depends on the function and the contaminants in the lab.
- 5. Provide automatic switchover for each of the cylinder gases.
- 6. Carbon dioxide gas shall be provided via cylinders(OFOI), refer to Chemical storage (2.76)
- 7. Gas Purity: CO2 (quality: "100%" UN1013) and compressed air (quality: "Breathing Quality" UN1002) to be provided by cylinder.

### G. RDS Notes:

- 1. Lab for interior finishes shall be finalized by the design team.
- 2. NOT USED
- 3. Refer to equipment matrix for power, water, gas requirement etc.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.

6.

7. Plumbed Type I DI water

Program ID:	2.72.1	Room Name:	Bituminous Lab (	QC) - Sort/Log		Department:
Quantity:	1	Area (SF):	121	Occupancy:	2	Chemistry
Function:		_		_		-
			INTERIOR FINISH	IES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☐ Height- 4"	Cased opening	from the lab
<b>✓</b> Other	✓ Other	Other	✓ Other	✓ Other	☐ Door Size	
Note G.1	Note G.1	Note G.1	Note G.1			
			BUILDING SERVIO	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		■ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		<ul><li>✓ Counter Material</li></ul>	
Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	\GE
✓ Pressurization	Note G.2		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Note G.2		☑ Other	Sediment trap @	■ Tall Shelving	
☐ Air Filtration (Sup		)	•	sink	Peg Board	
	OWER AND DAT		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	☑ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		<b>☑</b> Temperature	Note E.1
☑ 120V	Computer		☐ Other/Specialty		✓ Acoustics	Note E.3
□ 208V			•		■ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
<b>☑</b> Other	See RDS 2.72		☐ Toxic	☐ Radioactive	<b>☑</b> Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	Note G.2		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
Zoned Lighting			☐ Goggles		□ Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.2	☐ Keyed Entry	
☑ Natural Light			☑ Fire Extinguisher	Note G.2	☐ Access Control	
☐ Other			☐ Other		<b>☑</b> Other	Note G.2

Program ID:	2.72.1	Room Name:	Bituminous	s Lab (QC) - Sort/Log	Department:
Quantity:	1	Area (SF):	121	Occupancy: 2	Chemistry

**NOTES** 

#### A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

- 1. Refer to equipment matrix.
- 2. Requires PC Workstation

## C. Processes associated with the lab area/ department:

- 1. Sample receiving
- 2. Room will be utilized by District Inspectors and Mail Room Staff.

#### D. Primary Areas:

1. None

#### E. Environmental Conditions:

Temperature: Refer to RDS 2.72
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.72

#### F. General Notes:

1. Shared with the Bituminous Lab

- 1. Refer to the RDS 2.72 Open lab for interior finishes, unless noted otherwise.
- 2. Refer to the RDS 2.72 unless noted otherwise.
- 3. Refer to equipment matrix for power, water, gas requirement etc.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.

Program ID:	2.72.2	Room Name:	Bituminous Lab (	QC) - Prep Area		Department:
Quantity:	1	Area (SF):	See Note A.1	Occupancy:		Chemistry
Function:		_				
			INTERIOR FINISH	IES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	✓ Other	<b>☑</b> Other	✓ Other	✓ Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			BUILDING SERVIO	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	SERVICES	CASEW	ORK
✓ Fume Hood			Lab Sink		☐ Mobile Casework	
☐ Snorkel			✓ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		- ☐ Counter Material	
Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink	•	STORA	\GE
✓ Pressurization	Note G.2		☐ Floor Sink		✓ Tall Cabinets	Equipment
☑ Air Change Per Ho	our Note G	.2	- ☑ Other		- ☐ Tall Shelving	
☐ Air Filtration (Sup		:)	-		Peg Board	
	OWER AND DA		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		■ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	O.C.	✓ Compressed air	•	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water	•	☐ Vibration Control	
☐ Emergency	UPS		☐ Vacuum		☑ Temperature	
☑ 120V	Computer		☐ Other/Specialty		- Acoustics	
□ 208V	-		•		- ☑ Humidity	
☐ 480V	-		HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	Radioactivity	
☐ Other	•		☐ Toxic	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	9		☑ Safety Shower		☐ White Board	
☐ Task Light	-		- ☑ Eyewash		□ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☑ PPE	-	SECUR	ITY
✓ Occ Sensor			- ☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		Sprinkler Type	-	☐ Keyed Entry	-
☐ Natural Light			- ☑ Fire Extinguisher	-	✓ Access Control	-
<b>☑</b> Other	See RDS 2.72		☑ Other	See RDS 2.72	<b>☑</b> Other	See RDS 2.72

Program ID:	2.72.2	Room Name:	Bituminous Lab (Q	C) - Prep Area	Department:
Quantity:	1	Area (SF):	See Note A.1	Occupancy:	Chemistry
			NOTEC		

### A. Adjacency:

1. Prep areas to be within each of the separate lab testing areas.

Refer to the adjacency diagrams.

# B. Equipment:

- 1. Refer to equipment matrix.
- 2. Requires PC Workstation

### C. Processes associated with the lab area/ department:

- 1. Sample receiving
- 2. Will be utilized by District Inspectors and Mail Room Staff.

#### D. Primary Areas:

1. None

#### E. Test Types:

1. Provide list of test and the humidity and temperature requirements need for each area.

#### F. General Notes:

- 1. Refer to the RDS 2.72 Open lab for interior finishes, unless noted otherwise.
- 2. Refer to the RDS 2.72, unless noted otherwise.
- 3. Refer to equipment matrix for power, water, gas requirement etc.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.

Program ID:	2.72.3	Room Name:	Bituminous Lab (	QC) - Hot Pour Sea	aler	Department:
Quantity:	1	Area (SF):	363	Occupancy:	2	Chemistry
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
□ Ероху	☐ GWB	☐ GWB	<b>□</b> Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	-
☐ Rubber Flooring	Open	☑ Impact Resistant	☐ FRP		Glass	-
☐ Sealed Concrete	☐ Unistrut	I CMU		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	<b>☑</b> Other	Other	<b>☑</b> Other	☑ Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		-
			<b>BUILDING SERVI</b>	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
☑ Fume Hood			☑ Lab Sink		☐ Mobile Casework	
☐ Snorkel			- ☑ Hand Wash		Fixed Casework	
☐ Canopy			Cup Sink		- Casework Material	
☐ Biological Safety	 Cabinet		- ☐ Deep Sink		Counter Material	
☐ Other		•	☐ Floor Drain	-	☐ Other	•
	HVAC		☐ Scullery Sink		STOR	AGE
✓ Pressurization	Note G.4		☐ Floor Sink		☑ Tall Cabinets	
☑ Air Change Per H	our Note G.4		☑ Other	Sediment trap @	- ☐ Tall Shelving	
☐ Air Filtration (Supply and/or Exhaust)		:)	-	sink	Peg Board	
P	OWER AND DA	TA	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	-
☑ Perimeter Bench	Duplex @ 24"	0.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	
☑ 120V	Computer		☐ Other/Specialty		☐ Acoustics	
<b>☑</b> 208V	Equipment Bor	nd Tester	-		■ Humidity	
☐ 480V	-		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other	-		☐ Toxic	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve			☑ Safety Shower		☐ White Board	
☑ Task Light			☑ Eyewash		☐ Monitor	
Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Control	
☑ Other	See RDS 2.72		<b>☑</b> Other	See RDS 2.72	<b>☑</b> Other	See RDS 2.72

Program ID:	2.72.3	Room Name:	Bituminous	s Lab (QC) - Hot Pour Sealer	Department:
Quantity:	1	Area (SF):	363	Occupancy: 2	Chemistry

#### NOTES

#### A. Adjacency:

Refer to the adjacency diagrams

#### **B.** Equipment:

1. Melter (oil bath and stirrer)

## C. Processes associated with the lab area/ department:

1. Fume Hood for cutting blocks of product for melting. Can double as test specimen pouting area. (cups & blocks)

#### D. Primary Areas:

1. None

#### E. Environmental Conditions:

Temperature: Refer to RDS 2.72
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.72

#### F. General Notes:

1. Refer to equipment matrix for power, water, gas requirement etc.

#### **G. RDS SHEET NOTES**

- 1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.
- 2. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter.
- 3. Provide base cabinets under the Island Bench and perimeter with base cabinets below.
- 4. Refer to RDS 2.72

Program ID:	2.72.4	Room Name:	Bituminous Lab (	QC) - Emulsified A	sphalt	Department:
Quantity:	1	Area (SF):	484	Occupancy:	2	Chemistry
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	<b>□</b> Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	Unistrut	CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Door Size	6' X 8'
Note F.1	Note F.1	Note F.1	Note F.1	Note F.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
✓ Fume Hood			✓ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☑ Hand Wash		■ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☑ Deep Sink		Counter Material	
☐ Other			☑ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	AGE
Pressurization	Note F.2		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per Ho	our Note F.2		<b>☑</b> Other	Sediment trap @	_ ☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)	)	•	sink	Peg Board	-
PO	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	O.C.	☑ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		✓ Vacuum	Solubility Testing	✓ Temperature	Note E.1
☑ 120V	Computer		Other/Specialty		☐ Acoustics	
□ 208V			•		✓ Humidity	Note E.2
☐ 480V	'		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
Other	-		☐ Toxic	☐ Radioactive	Other	
	-		Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve			✓ Safety Shower		☐ White Board	
☑ Task Light			<b>☑</b> Eyewash		☐ Monitor	
Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Contol	
✓ Other	See RDS 2.72		<b>☑</b> Other	See RDS 2.72	<b>☑</b> Other	See RDS 2.72

 Program ID:
 2.72.4
 Room Name:
 Bituminous Lab (QC) - Emulsified Asphalt
 Department:

 Quantity:
 1
 Area (SF):
 484
 Occupancy: 2
 Chemistry

**NOTES** 

#### A. Adjacency:

Refer to the adjacency diagrams.

#### B. Equipment:

1. Distillers

## C. Processes associated with the lab area/ department:

- 1. Prep area to pour up and prep test specimens
- 2. Area to accommodate two distillation apparatus.

#### D. Primary Areas:

1. None

## E. Environmental Conditions:

Temperature: Refer to RDS 2.72
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.72

## F. RDS NOTE:

1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.

2. Refer to RDS 2.72.

Program ID:	2.72.5	Room Name:	Bituminous Lab (	QC) - Cutback Test	ting	Department:
Quantity:	1	Area (SF):	363	Occupancy:	2	Chemistry
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	<b>□</b> Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
☑ Fume Hood			✓ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☑ Hand Wash		Fixed Casework	
☐ Canopy			Cup Sink		. ☐ Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STOR	\GE
✓ Pressurization	Note G.2		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per H	our Note G.2		☑ Other	Sediment trap @	□ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)	•	sink	Peg Board	
P	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		✓ Vacuum	Vis tunes solubility	✓ Temperature	Note E.1
☑ 120V	Computer		-		☐ Acoustics	-
□ 208V			☐ Other/Specialty		☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve			✓ Safety Shower		☐ White Board	
☑ Task Light			<b>☑</b> Eyewash		☐ Monitor	
Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		✓ Access Contol	
<b>☑</b> Other	See RDS 2.72		✓ Other	See RDS 2.72	✓ Other	See RDS 2.72

Program ID: 2.72.5 Room Name: Bituminous Lab (QC) - Cutback Testing Department:

Quantity: 1 Area (SF): 363 Occupancy: 2 Chemistry

NOTES

#### A. Adjacency:

Refer to the adjacency diagrams.

#### B. Equipment:

Refer to equipment Matrix for equipment.

## C. Processes associated with the lab area/ department:

- 1. Prep area to pour up for viscosity and distillation.
- 2. Fume Hood for distillation apparatus (room for one is fine)
- 3. Area for vis baths w/ vacuum for cleaning.

## D. Primary Areas:

1. None

#### E. Environmental Conditions:

Temperature: Refer to RDS 2.72
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.72

#### F. General Notes:

None

- 1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.
- 2. Refer to RDS 2.72.

Program ID:	2.72.6	Room Name:	Bituminous Lab (	QC) - PG Asphalt		Department:
Quantity:	1	Area (SF):	847	Occupancy:	2	Chemistry
			INTERIOR FINISH	- HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	Unistrut	<b>П</b> СМИ		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	✓ Door Size	6' X 8'
Note E.1	Note E.1	Note E.1	Note E.1	Note E.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
✓ Fume Hood			☑ Lab Sink		☐ Mobile Casework	
Snorkel			☑ Hand Wash		✓ Fixed Casework	
Canopy	RTFO Ovens		Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	AGE
✓ Pressurization			☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH		<b>✓</b> Other	Sediment trap @	☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)	•	sink	Peg Board	
PO	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☑ Compressed air	DSRs RTFOs BBRs	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	b	☐ Purified Water		☑ Vibration Control	DSR and BBR
☐ Emergency	<b>☑</b> UPS	PAVs	☐ Vacuum		✓ Temperature	
☑ 120V	Computer			PAV air tanks, nat.	☐ Acoustics	
<b>☑</b> 208V	Equipment		Other/Specialty	burners	☐ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve			☑ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☑ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher		☐ Access Control	
✓ Other	See RDS 2.72		✓ Other	See RDS 2.72	<b>☑</b> Other	See RDS 2.72

 Program ID:
 2.72.6
 Room Name:
 Bituminous Lab (QC) - PG Asphalt
 Department:

 Quantity:
 1
 Area (SF):
 847
 Occupancy:
 2
 Chemistry

**NOTES** 

#### A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

## C. Processes associated with the lab area/ department:

- 1. Prep area to pour up.
- 2. DSRs and BBRs together in one place (vibration free surface)
- 3. RTFOs together under canopy w/area for pouring up bottles and PAV pans
- 4. PAV together in one area to run air lines from tanks and UPS.

## D. Primary Areas:

1. None

#### E. Environmental Conditions:

Temperature: Refer to RDS 2.72
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.72

#### F. General Notes:

#### G. RDS Notes:

1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.

Program ID:	2.72.7	Room Name:	Bituminous Lab (	QC) - Sample Stor	age	Department:
Quantity:	1	Area (SF):	181.5	Occupancy:	2	Chemistry
			INTERIOR FINISH	- HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	Unistrut	I CMU		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	<b>☑</b> Other	☐ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	AGE
Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per H	our 6 ACH		Other		■ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)	•		Peg Board	
P	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	o.c.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note G.1
☑ 120V	Computer		•		☐ Acoustics	
□ 208V			☐ Other/Specialty		✓ Humidity	Note G.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve			☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher		☑ Access Control	
✓ Other	See RDS 2.72		Other	See RDS 2.72	<b>☑</b> Other	See RDS 2.72

 Program ID:
 2.72.7
 Room Name:
 Bituminous Lab (QC) - Sample Storage
 Department:

 Quantity:
 1
 Area (SF):
 181.5
 Occupancy:
 2
 Chemistry

NOTES

#### A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

## C. Processes associated with the lab area/ department:

- 1. Ideal space would allow one season worth of completed samples storage (collected APR to NOV)
- 2. Allows for retesting of samples should issues arise in future field projects.

## D. Primary Areas:

1. None

## E. Environmental Conditions:

Temperature: Refer to RDS 2.72
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.72

#### F. General Notes:

## G. RDS Notes:

1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.

Program ID:	2.72.8	Room Name:	Room Name: Bituminous Lab (QC) - Naphtha Bath			
Quantity:	1	Area (SF):	181.5	Occupancy	2	Chemistry
	_	_	INTERIOR FINIS	HES		_
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	□ аст	☐ Mold/Moisture	Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	_		Glass	
☐ Sealed Concrete	□ Unistrut	□ сми		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	☑ Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	☑ Door Size	6' X 8'
			DUTI DINC CEDUT	CEC		
DUCI	ED LAB EQUIP		BUILDING SERVI	G SERVICES	CASEW	IODV
✓ Fume Hood	Note B.1	MENT	☐ Lab Sink	G SERVICES	✓ Mobile Casework	OKK
☐ Snorkel	Note B.1		- ☑ Hand Wash		<u> </u>	
Canopy			Cup Sink		_ ☑ Fixed Casework ☐ Casework Material	
☐ Biological Safety	Cabinot		□ Cup Sink □ Deep Sink		_	-
Other	Cabinet		☑ Floor Drain		Counter Material Other	
Otner	HVAC		_		STOR	NGE
			☐ Scullery Sink		Tall Cabinets	AGL
✓ Pressurization	Negative our 6 ACH		☐ Floor Sink		_	-
☑ Air Change Per H			<b>☑</b> Other	Sediment trap @ sink	<ul><li>✓ Tall Shelving</li><li>✓ Peg Board</li></ul>	-
☐ Air Filtration (Sup	ply and/or Exhaust		LABORATO	RY SERVICES	Lockers	-
☐ Island Bench	OWER AND DA	IA		RY SERVICES	■ Lockers ■ Mobile Cabinets	
	Duplex @ 24"	0.0	Nitrogen		SPECIAL REQ	LIDEMENTS
Perimeter Bench			Compressed air		_	DIREMENTS
Ceiling Mounted	✓ Floor Mounte	a	•		☐ Vibration Control	
☐ Emergency	<ul><li>✓ UPS</li><li>Computer</li></ul>		Vacuum	-	_ ☑ Temperature ☐ Acoustics	-
☑ 120V	Computer			-	Humidity	-
208V	-		Other/Specialty	TEDIAL STORAGE	,	-
☐ 480V	- I we sin		☐ Acid/ Corrosive	TERIAL STORAGE		-
☑ Data	✓ Wi-Fi Router	Comm.	Toxic	✓ Flammable	Radioactivity	
Other			Other	Radioactive	Other	
	LIGHTING			E PROTECTION	VICU	A1
Analoiant Linkt Lav	LIGHTING		SAFETY / FIRE	E PROTECTION	VISU  White Board	AL
Ambient Light Leve			■ Salety Shower  Eyewash		_	
☑ Task Light	-		Goggles	-	_ ☐ Monitor	-
Zoned Lighting			Goggles - ☑ PPE		Projection	OITV
Dimmer			•		SECUR CCTV	THY
☑ Occ Sensor			In-Use Signage		_	
<ul><li>☐ Window Treatmer</li><li>☐ Natural Light</li></ul>	nt		Sprinkler Type		Keyed Entry	
☑ Natural Light ☑ Other	Coo DDC 2.72		☑ Fire Extinguisher ☑ Other	C DDC 2 72	<ul><li>✓ Access Control</li><li>✓ Other</li></ul>	C PDC 2.72
<b>∟</b> Other	See RDS 2.72		- Cuici	See RDS 2.72	<b>∸</b> Outer	See RDS 2.72

Program ID:	2.72.8	Room Name:	: Bituminous Lab (Ç	(C) - Naphtha Bath	Department:
Quantity:	1	Area (SF):	181.5	Occupancy: 2	Chemistry

#### **NOTES**

## A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

1. (2) Fume Hoods, floor mounted,  $36D \times 51W$  (ID) for parts washers used to clean labware to ventilate solvent fumes.

## C. Processes associated with the lab area/ department:

- 1. Parts washer currently located in Chem Storage area (not ideal)
- 2. Ideally would have its own dedicated space for dish washing and drying.
- 3. Would also be good to have a sink and drying rack for the dishes in same area.

#### D. Primary Areas:

1. None

## E. Test Types:

1. Provide list of test and the humidity and temperature requirements need for each area.

## F. General Notes:

1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.

Program ID:	2.73	Room Name:	Analytical Lab			Department:		
Quantity:	3	Area (SF):	1452	Occupancy	2	- Chemistry		
INTERIOR FINISHES								
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R		
□ Ероху	☐ GWB	<b>☑</b> GWB	□ Ероху	☑ Integral Cove	✓ Hollow Metal			
☐ Sheet Flooring	✓ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood			
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass			
✓ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ Cased Opening			
Other	Other	Other	Other	Other	☑ Door Size	6' X 8'		
			BUILDING SERVI	CES				
DUCT	ED LAB EQUIP	MENT	PLUMBIN	G SERVICES	CASEW	ORK .		
✓ Fume Hood	Note B.2		✓ Lab Sink		✓ Mobile Casework			
☐ Snorkel			✓ Hand Wash		Fixed Casework			
☐ Canopy			✓ Cup Sink		_ ☐ Casework Material			
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material			
Other			☐ Floor Drain		□ Other			
	HVAC		☐ Scullery Sink		STOR	AGE		
✓ Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets			
☑ Air Change Per H	our 6 ACH		<b>✓</b> Other	Sediment trap @	■ Tall Shelving			
☑ Air Filtration (Sup	ply and/or Exhaust	t)		sink	Peg Board			
P	OWER AND DA	TA	LABORATO	RY SERVICES	Lockers			
✓ Island Bench			☐ Nitrogen		☐ Mobile Cabinets			
☑ Perimeter Bench	Duplex @ 24"	O.C.	☑ Compressed air	note G.5	SPECIAL REQ	<b>JIREMENTS</b>		
☐ Ceiling Mounted	☑ Floor Mounte	d	☑ Purified Water	Note G.1	☑ Vibration Control	Note B.1		
☐ Emergency	☐ UPS		<b>☑</b> Vacuum	Note G.2	✓ Temperature	Note E.1		
☑ 120V	Computer		☐ Specialty Gas		Acoustics			
<b>☑</b> 208V	Equipment		☑ Other/Specialty	Note G.4	■ Humidity	Note E.2		
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation			
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	✓ Acid/ Corrosive	✓ Flammable	☐ Radioactivity			
Other			☐ Toxic	☐ Radioactive	Other			
			<b>☑</b> Other	Note B.2				
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL		
Ambient Light Leve	2		✓ Safety Shower		☐ White Board			
☑ Task Light			<b>☑</b> Eyewash	at all sinks	_ ☐ Monitor			
☐ Zoned Lighting			☐ Goggles		 ☐ Projection			
Dimmer			☐ PPE		SECUF	RITY		
☑ Occ Sensor			☐ In-Use Signage		□ сст∨			
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	_		
☐ Natural Light	_		☑ Fire Extinguisher		✓ Access Control	_		
Other			Other		☐ Other			

Program ID:	2.73		Room Name: A	nalytical Lab		Department:
Quantity:		3	Area (SF): 1	.452	Occupancy: 2	Chemistry
				NOTES		

<u>A. Adjacency</u>: Centralized area for service to other labs. Samples and equipment. Adjacent office proximity is acceptable. Refer to the adjacency diagrams.

#### **B.** Equipment:

- 1. Analytical Balances- (vibration sensitive).
- 2. Fume Hoods: Current hoods are various different sizes, but would prefer larger hoods for testing purposes.
  - a) Fume hood Size: 6'-0" wide or 8' wide.
    - Fume hood Utilities: Natural gas for Bunsen burners, compressed air (CA), vacuum. Two to three 120V duplex inside fume hood. Specialty gas: Carbon dioxide.
  - b) Fume hood: Atomic Absorption Instrument (AA)- Qty-1

FH Size: 6'-0" wide.

• FH Utilities: Natural gas(NG) for Bunsen burners, compressed air, and vacuum. Three 120V duplex outlets inside fume hood.

Specialty gases: Nitrous Oxide and Acetylene are provided by cylinders. Nitrous

Oxide's purity should be UN1070 – AA grade -minimum purity specification 99.0%

\*Requires a 120V

One of these fume hoods is dedicated for the Atomic Absorption Instrument (AA), for ventilating, and it currently has a snorkel vent located over the burner head.

## C. Processes associated with the lab area/ department:

- 1. Material processing station Sample log in
- 2. Cementitious testing wet chemistry and instrument preparation
- 3. Wet chemistry testing to be conducted in fume hoods
- 4. Paint testing Bridge and traffic paint
- 5. Thermoplastic materials sample prep and testing areas
- 6. Retroreflective materials Material prep station and photometric range: sign sheeting, pavement tape, and reflectors
- 7. Rock salt separate testing area to insure cross contamination with the cementitious testing
- 8. Camsizer instrument gradation for glass beads thermoplastic material
- 9. Accelerated weathering bridge paint, traffic marking materials, and reflective sheeting
- 10. Waste disposal requires fume hood and sink
- 11. Field investigation storage area
- 12. Parts washer currently located in Chem Storage area (not ideal)
- 13. A dedicated space for dish washing and drying is preferred.
- 14. All sink shall have a drying rack for the dishes.

#### D. Primary Areas:

- 2.73.1 Sort/Log,
- 2.73.2 Cementitious
- 2.73.3 "Everything Else"
- 2.73.4 Weather Lab
- 2.73.5 Photometric Lab
- 2.73.6 Analytical Salt Lab
- 2.73.7 Analytical Thermoplastic Lab

#### E. Environmental Conditions:

- 1. Temperature: 72-75 +/-2F 2. Humidity: 45%RH+/- 5%
- 3. Acoustic: NC-36

Program ID:	: 2.73 Ro		Room Name: Analytical Lab		Department:
Quantity:		3	Area (SF): 1452	Occupancy: 2	Chemistry

#### F. General Notes:

- 1. CA (from building compressed air source), and vacuum line for filtration purposes (has own vacuum pump but would need a location for storage/operation).
- 2. Photometric Range and Weathering Acceleration.
- 3. Sample area for receiving and distribution. Open sample prep space.
- 4. Proximity for process: testing/hoods/ovens.
- 5. Lab process non-linear, more triangular between operations.
- 6. Sample prep for photometric range in photometric area.
- 7. Compressed air "Breathing Quality" UN1002
- 8. Chemical used in the labs:
  - Nitrous Oxide UN1070 AA grade -minimum purity specification 99.0% \*Requires a 120V outlet near cylinder for heating manifold
  - Acetylene UN1001 AA grade -minimum purity specification 99.6% \*CAUTION: Acetylene may react with copper to form a potentially explosive compound. Copper tubing or fittings for acetylene gas must be strictly avoided.
- 9. Specialty gases piping:
  - Provide stainless steel piping to ensure a clean gas source is provided to the equipment, refer to plumbing Narrative

- 1. Plumbed Type I DI water
- 2. Provide a vacuum cabinet for the existing vacuum pump that shall provide vacuum to the FH.
- 3. Provide CA(from building compressed air source).
- 4. Provide piped natural gas to gas valves at benchtop used for a variety of test applications/
- 5. Compressed Air is also required for some equipment refer to equipment matrix.

Program ID:	2.73.1	Room Name:	Analytical Lab - S	ort / Log		Department:
Quantity:	1	Area (SF):	121	Occupancy:	2	Chemistry
			INTERIOR FINISH	- HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	Unistrut	CMU		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	☐ Door Size	
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		✓ Mobile Casework	
☐ Snorkel			☑ Hand Wash		Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		☐ Other	
	HVAC		☐ Scullery Sink		STORA	GE
✓ Pressurization	Note G.2		☐ Floor Sink		✓ Tall Cabinets	
☑ Air Change Per H	our Note G.:	2	☑ Other	sediment trap at	- ☑ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)	•	sink	☐ Peg Board	
P	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	O.C.	□ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer				☐ Acoustics	
□ 208V	'		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V	'		HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve			☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		☐ Access Control	
✓ Other	See RDS 2.73		✓ Other	See RDS 2.73	☑ Other	See RDS 2.73

 Program ID:
 2.73.1
 Room Name:
 Analytical Lab - Sort / Log
 Department:

 Quantity:
 1
 Area (SF):
 121
 Occupancy:
 2
 Chemistry

NOTES

#### A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

## C. Processes associated with the lab area/ department:

- 1. Sample receiving and distribution.
- 2. Large countertop to sort and log samples into Access/CMMS.

## D. Test Types:

1. None

## E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.73
 Acoustic: Refer to RDS 2.73

#### F. General Notes:

- 1. Refer to RDS 2.73 for finishes and building systems, unless noted otherwise.
- 2. Refer to RDS 2.73 for HVAC requirements and Mechanical requirements.

Program ID:	2.73.2	Room Name:	Analytical Lab - C	Department:		
Quantity:	1 Area (SF):		605	Occupancy:	2	Chemistry
			INTERIOR FINISH	IES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
<b>□</b> Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ CMU		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	☑ Other	☐ Other	<b>☑</b> Other	☑ Other	☑ Door Size	6' X 8'
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIPI			SERVICES	CASEW	ORK
✓ Fume Hood	QTY-5 Size:		☐ Lab Sink		✓ Mobile Casework	
✓ Snorkel	at AA station		✓ Hand Wash		✓ Fixed Casework	
✓ Canopy	-		☐ Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		☐ Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STOR	\GE
✓ Pressurization	Note G.2		☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per Ho	our Note G.2		<b>✓</b> Other	Sediment trap @	✓ Tall Shelving	
☑ Air Filtration (Supp		)		sink	Peg Board	
PC	OWER AND DAT	Ā	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" 0	).C.	☑ Compressed air	via air compressor	SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	i	☑ Purified Water	Type 1	☑ Vibration Control	Note B.2
☐ Emergency	<b>☑</b> UPS		✓ Vacuum		✓ Temperature	
☑ 120V	Computer				☐ Acoustics	
<b>☑</b> 208V			☑ Other/Specialty	Nitrous / Acetylene	✓ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ WiFi Router	Comm.	✓ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radiactive	Other	
			<b>☑</b> Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Level:			✓ Safety Shower		☐ White Board	
☑ Task Light			<b>✓</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
☑ Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher		☐ Access Contol	
<b>☑</b> Other	See RDS 2.73		<b>☑</b> Other	See RDS 2.73	<b>☑</b> Other	See RDS 2.73

 Program ID:
 2.73.2
 Room Name:
 Analytical Lab - Cementitious
 Department:

 Quantity:
 1
 Area (SF):
 605
 Occupancy:
 2
 Chemistry

NOTES

### A. Adjacency:

Most not be in close proximity to the salt testing room.

Refer to the adjacency diagrams.

# **B.** Equipment:

- 1. vaccuum pump.- types of vacuum:
- 2. Instrumentation, AA, and balances (vibration sensitive)

## C. Processes associated with the lab area/ department:

- 1. Wet chemistry to be conducted in fume hoods
- 2. Snorkel or canopy hoods for hotplate / wet chemistry area / waste disposal.

### D. Primary Areas:

1. None

### E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.73
 Acoustic: Refer to RDS 2.73

# F. General Notes:

- 1. Refer to RDS 2.73 for finishes and building systems, unless noted otherwise.
- 2. Refer to RDS 2.73 for HVAC requirements and Mechanical requirements.

Program ID:	2.73.3	Room Name:	Analytical Lab - "	Department:		
Quantity:	1 Area (SF):		605	Occupancy:	2	Chemistry
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R
<b>□</b> Ероху	☐ GWB	☐ GWB	<b>□</b> Ероху	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	<b>☑</b> Other	<b>☑</b> Other	☐ Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
✓ Fume Hood	Qty: 2 Size:	6'	☑ Lab Sink	Note F.2	✓ Mobile Casework	
☐ Snorkel			☑ Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		Scullery Sink		STOR	AGE
Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per H	our		✓ Other	Sediment trap @	<b>☑</b> Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	t)	•	sink	☐ Peg Board	
P	OWER AND DA	TA	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	☑ Compressed air		SPECIAL REQ	<b>JIREMENTS</b>
☐ Ceiling Mounted	☑ Floor Mounte	d	☑ Purified Water	Note G.2	☑ Vibration Control	Note B.4
☐ Emergency	☐ UPS		✓ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer		_		☐ Acoustics	
□ 208V			☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
Other			Птохіс	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	e		✓ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	ıt		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		☐ Access Control	
✓ Other	See RDS 2.73		<b>✓</b> Other	See RDS 2.73	☑ Other	See RDS 2.73

 Program ID:
 2.73.3
 Room Name:
 Analytical Lab - "Everything Else"
 Department:

 Quantity:
 1
 Area (SF):
 605
 Occupancy: 2
 Chemistry

NOTES

### A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

- 1. Thermoplastic area large oven, muffle furnace and softening point area.
- 2. Color instruments (2) connected to computers.
- 3. Traffic/Bridge paint area snorkel/canopy hood.
- 4. Balances (vibration sensitive)

## C. Processes associated with the lab area/ department:

## D. Primary Areas:

1. None

### E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.73
 Acoustic: Refer to RDS 2.73

## F. General Notes:

- 1. Refer to RDS 2.73 for interior finishes and building systems, unless noted otherwise.
- 2. Provide DI water faucet at sink for rinsing glassware and making dilutions.
- 3. Refer to RDS 2.73 for HVAC requirements and Mechanical requirements.

Program ID:	2.73.4	Room Name:	Analytical Lab - V	Weather Lab		Department:
Quantity:	1	Area (SF):	121	Occupancy:	2	Chemistry
Function:						
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	Cased opening	42" opening
<b>☑</b> Other	✓ Other	✓ Other	✓ Other	✓ Other	☐ Door Size	
Note G.1	Note G.1	Note G.1		Note G.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEW	ORK
✓ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel	-		✓ Hand Wash		■ Fixed Casework	
☐ Canopy	-		Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		Counter Material	
Other			☑ Floor Drain		□ Other	
	HVAC		☐ Scullery Sink		STOR	\GE
✓ Pressurization	Note G.2		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our Note G.2		Other		_ ☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	t)	-		Peg Board	
P	OWER AND DA	TA	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24"	0.C.	Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounte	d	✓ Purified Water	DI Water	☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note G.1
☑ 120V	Computer		-		Acoustics	
□ 208V			Other/Specialty		_ ☑ Humidity	Note G.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	-
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	-
Other			П Тохіс	☐ Radioactive	Other	-
			☐ Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	2		☐ Safety Shower		☐ White Board	
☐ Task Light			Eyewash		_ ☐ Monitor	
☐ Zoned Lighting			Goggles		_ ☐ Projection	
Dimmer	-		□ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☑ Natural Light			☐ Fire Extinguisher		☐ Access Control	
<b>☑</b> Other	See RDS 2.73		☑ Other	See RDS 2.73	☑ Other	See RDS 2.73

Program ID:	2.73.4	Room Name:	Analytical Lab - Weather Lab		Department:
Quantity:	1	Area (SF):	121	Occupancy: 2	Chemistry

NOTES

# A. Adjacency:

Refer to the adjacency diagrams.

### **B.** Equipment:

C. Processes associated with the lab area/ department:

### D. Test Type:

# E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.73
 Acoustic: Refer to RDS 2.73

### F. General Notes:

- 1. This space can be part of the open lab or can be a separate room.
- 2. UV/ Condensation Weathering (UVA/UVB Fluorescent Bulbs), clearance must be provided for the replacement of the 4' length bulbs.

- 1. Refer to RDS 2.73 for finishes and building systems, unless noted otherwise.
- 2. Refer to RDS 2.73 for HVAC requirements and Mechanical requirements.

Program ID:	2.73.5	Room Name:	Analytical Lab - F	Department:		
Quantity:	1	Area (SF):	726	Occupancy:	2	Chemistry
Function:		_		_		_
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	<b>✓</b> Other	<b>☑</b> Other	✓ Other	✓ Door Size	6' X 8'
Note G,2	Note G.2	Note G.2	Note G.2	Note G.2	Note G,3	
			BUILDING SERVI	CES		
DUCTED LAB EQU	JIPMENT		PLUMBING	G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		✓ Mobile Casework	Note G.4
☐ Snorkel			☐ Hand Wash		■ Fixed Casework	
☐ Canopy			Cup Sink		_ ☐ Casework Material	
☐ Biological Safety (	 Cabinet		☐ Deep Sink		Counter Material	Ероху
Other			☐ Floor Drain		□ Other	
HVAC			☐ Scullery Sink		STOR	\GE
✓ Pressurization	Negative or ne	utral	☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per Ho	our		☐ Other		Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	;)	-		☐ Peg Board	
POWER AND DAT	A		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		■ Temperature	Note E.1
☑ 120V	Computer work	station	-		☐ Acoustics	
□ 208V			☐ Other/Specialty		- ☑ Humidity	Note E.1
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	<b>☑</b> Other	60' x 8' x 10'
			☐ Other			
LIGHTING			SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	<b>2</b>		☐ Safety Shower		☐ White Board	
☑ Task Light	Note G.5		Eyewash		_ ☐ Monitor	
☐ Zoned Lighting			☑ Goggles	Note G.7	_ ☐ Projection	
<b>☑</b> Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☑ In-Use Signage	Note G.6	□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light	_		☑ Fire Extinguisher	Sensitive	✓ Access Control	
<b>☑</b> Other	See RDS 2.73		☑ Other	See RDS 2.73	<b>☑</b> Other	See RDS 2.73

Program ID:	2.73.5	Room Name:	Analytical Lab - Photometric Lab			Department:
Quantity:	1	Area (SF):	726	726 Occupancy:		Chemistry

# NOTES

### A. Adjacency:

Refer to the adjacency diagrams.

### **B.** Equipment:

# C. Processes associated with the lab area/ department:

Refer to Laboratory Narrative.

## D. Test:-

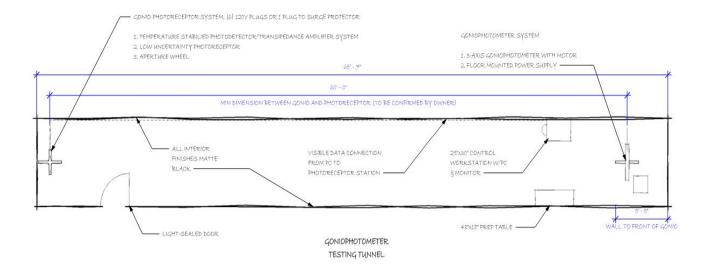
### E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.72
 Acoustic: Refer to RDS 2.73

### F. General Notes:

- 1. Provide Rubber tile or carpet, final discussed to be made by design team.
- 2. Finish color shall be painted matte black.
- 3. Provide light seals along door frames and bottom to ensure no light leakage into space.
- 4. Provide painted metal casework
- 5. Provide task lighting at computer light station and prep table.
- 6. Entry controlled with 'TESTING IN PROGRESS" signage at door. Would the equipment be connected to the in use light via door interlock. User agency if this would be desired?
- 7. Eye Protection from Light required while working in this space.

Program ID:	2.73.5	Room Name:	Analytical Lab - Photometric Lab		Department:	
Quantity:	1	Area (SF):	726	Occupancy:	2	Chemistry



Program ID:	2.73.6	Room Name:	Analytical Lab - A	Department:		
Quantity:	1	Area (SF):	60.5	Occupancy:	2	Chemistry
Function:	'	_		_		-
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☐ Height- 4"	☐ Cased opening	
<b>✓</b> Other	✓ Other	<b>✓</b> Other	✓ Other	✓ Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			<b>BUILDING SERVI</b>	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBIN	G SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
✓ Snorkel	Qty- 1		☐ Hand Wash		Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety	 Cabinet		Deep Sink		□ Counter Material	
Other		-	Floor Drain	-	- □ Other	
	HVAC		☐ Scullery Sink		STOR	\GE
☑ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
✓ Air Change Per H	our 6 ACH		□ Other		- ☑ Tall Shelving	
☐ Air Filtration (Sup		t)	-		Peg Board	
P	OWER AND DA	TA	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☑ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer		-		☐ Acoustics	
□ 208V	'		Other/Specialty		■ Humidity	Note E.2
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☑ Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other	'		П Тохіс	☐ Radioactive	<b>☑</b> Other	Note G.2
			☐ Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	2		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		□ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	-
✓ Natural Light			☑ Fire Extinguisher		☐ Access Control	
<b>☑</b> Other	See RDS 2.73		<b>☑</b> Other	See RDS 2.73	<b>☑</b> Other	See RDS 2.73

Program ID:2.73.6Room Name:Analytical Lab - Analytical Salt LabDepartment:Quantity:1Area (SF):60.5Occupancy: 2Chemistry

NOTES

### A. Adjacency:

Refer to the adjacency diagrams.

### **B.** Equipment:

# C. Processes associated with the lab area/ department:

1. Rock Salt testing

## D. Primary Areas:

1. None

# E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.73
 Acoustic: Refer to RDS 2.73

### F. General Notes:

# G. RDS Notes:

1. Refer to RDS 2.73 for finishes and building systems, unless noted otherwise.

2. Located away from AA instrument.

Program ID:	Program ID: 2.73.7 Room Name:			Analytical Lab - Analytical Thermoplastic			
Quantity:	1	Area (SF):	60.5	Occupancy:	2	Chemistry	
Function:	-	_		_		-	
			INTERIOR FINIS	HES			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R	
□ Ероху	☐ GWB	☐ GWB	<b>□</b> Ероху	☐ Integral Cove	✓ Hollow Metal		
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood		
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass		
☐ Sealed Concrete	☐ Unistrut	□ сми	Matte Black	☐ Height- 4"	☐ 48in		
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	Other	✓ Other	✓ Door Size	6' X 8'	
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1			
			<b>BUILDING SERVI</b>	CES			
DUCTED LAB EQU	JIPMENT		PLUMBIN	G SERVICES	CASEW	ORK	
☑ Fume Hood			☑ Lab Sink	Note G.2	☑ Mobile Casework		
✓ Snorkel	Large Oven (a	oprox size of REF)	☐ Hand Wash		- ✓ Fixed Casework	Note G.4, G.5	
Canopy	Large Oven (a	oprox size of REF)	Cup Sink		Casework Material		
☐ Biological Safety (	 Cabinet		☐ Deep Sink		Counter Material		
☐ Other			Floor Drain	-	□ Other		
HVAC			☐ Scullery Sink	-	STORA	\GE	
✓ Pressurization Negative		☐ Floor Sink		- ✓ Tall Cabinets			
☑ Air Change Per Hour 6 ACH		- ☑ Other	Sediment trap @	- ☑ Tall Shelving			
☐ Air Filtration (Supply and/or Exhaust)		-	sink	Peg Board			
POWER AND DAT	-	,	LABORATO	RY SERVICES	Lockers		
☐ Island Bench			□ Nitrogen		■ Mobile Cabinets		
✓ Perimeter Bench	Duplex @ 24"	O.C.	□ Compressed air		SPECIAL REQU	JIREMENTS	
☐ Ceiling Mounted	✓ Floor Mounte	d	Purified Water		☐ Vibration Control		
☐ Emergency	UPS		Vacuum		Temperature	Note G.1	
☑ 120V	Computer		☐ Specialty Gas		☐ Acoustics		
□ 208V			Other/Specialty	-	- ☑ Humidity	Note G.2	
☐ 480V	-			TERIAL STORAGE	Sound Isolation		
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	■ Radioactivity		
Other			Toxic	☐ Radioactive	Other		
	-		Other	_			
LIGHTING			SAFETY / FIR	E PROTECTION	VISU	AL	
Ambient Light Leve	e		☑ Safety Shower	Note G.3	☐ White Board		
☐ Task Light			- ☑ Eyewash	Note G.3	_ ☐ Monitor		
☐ Zoned Lighting			Goggles		_ ☐ Projection		
☐ Dimmer			□ PPE		SECUR	ITY	
Occ Sensor	-		- ☐ In-Use Signage		□ сст∨		
☐ Window Treatmen	t		☑ Sprinkler Type		- ☐ Keyed Entry		
☐ Natural Light			Fire Extinguisher		✓ Access Control		
<b>☑</b> Other	See RDS 2.73		☑ Other	See RDS 2.73	<b>☑</b> Other	See RDS 2.73	

Program ID:	2.73.7	Room Name:	Analytical Lab - Analytical Thermoplastic		Department:	
Quantity:	1	Area (SF):	60.5	Occupancy:	2	Chemistry

## **NOTES**

### A. Adjacency:

Refer to the adjacency diagrams.

#### **B.** Equipment:

- 1. Oversized oven, water bath
- 2. Fume hood: Qty:1
  - 120V outlets at back of FH
  - Cold water CW , cup sink

C. Test: N/A

### D. Primary Areas:

1. None

### E. Environmental Conditions:

Temperature: Refer to RDS 2.73
 Humidity: Refer to RDS 2.73
 Acoustic: Refer to RDS 2.73

# F. General Notes:

- 1. Refer to RDS 2.73 for finishes and building systems, unless noted otherwise.
- 2. Handwash sink suffice for the purpose of cold water immersion.
- 3. Safety shower/eyewash station to have thermostatic valve for tempered water.
- 4. Provide a countertop that is tough and durable. Provide 36" deep countertop along the perimeter with adequate space for the oversized oven and workspace near the oven.
- 5. Provide base cabinets under the Island Bench and perimeter with base cabinets below.

Program ID:	2.74	Room Name:	<b>Chemistry Storag</b>	e (Shared)		Department:
Quantity:	1 Area (SF):		121 Occupancy		2	Chemistry
			INTERIOR FINISH	- IES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	☑ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	✓ Impact Resistant	☐ FRP		☐ Glass	
✓ Sealed Concrete	Unistrut	☑ CMU		☑ Height- 4"	☐ 48in	
☐ Other	Other	☐ Other	☐ Other	☐ Other	<b>☑</b> Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	\GE
✓ Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
Air Change Per H	our		☐ Other		✓ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	)	•		Peg Board	
P	OWER AND DAT	T <b>A</b>	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	).C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	☐ Purified Water		☑ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		☐ Temperature	
☑ 120V	Computer				☐ Acoustics	
☐ 208V			☐ Other/Specialty		☐ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
☑ Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	☐ Other	
			☑ Other	Note G.2, G.3		
	LIGHTING			E PROTECTION	VISU	AL
Ambient Light Leve			☑ Safety Shower		☐ White Board	
☐ Task Light	-		<b>☑</b> Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE		SECUR	ITY
✓ Occ Sensor			In-Use Signage		☐ CCTV	
☐ Window Treatmen	t		Sprinkler Type	See RDS 2.74	☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher	See RDS 2.74	☑ Access Control	
☐ Other			Other		☐ Other	

Program ID:	2.74		Room Name: Chemistry S	Room Name: Chemistry Storage (Shared)			
Quantity:		1	Area (SF): 121	Occupancy: 2	Chemistry		
			NOTE	•			

<u>A. Adjacency:</u> Chemistry receives samples/materials from all other labs. Central location optimal. Smaller items – core samples. Refer to the adjacency diagrams.

## **B.** Equipment:

C. Processes associated with the lab area/ department:

### D. Primary Areas:

1. None

### E. Environmental Conditions:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

### F. General Notes:

- 1. Chemical that shall be used in labs.
  - Nitrous Oxide and Acetylene (as well as compressed air) are needed to operate the Atomic Absorption instrument (AA). Nitrous Oxide and Acetylene are provided by cylinders. Nitrous Oxide's purity should be UN1070 – AA grade -minimum purity specification 99.0% \*Requires a 120V

- 1. Refer to RDS 2.72 for finishes and building systems, unless noted otherwise.
- 2. Provide tall UL flammable cabinets
- 3. Provide Tall UL acid cabinets vented. Design team to ensure that the Maximum Allowable Quantity (MAQ) is mantained per code.

Program ID:	2.75	Room Name:	PPE Storage (Sha	red)		Department:
Quantity:	1	Area (SF):	121	Occupancy:	2	Chemistry
			INTERIOR FINISH	IES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☑ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	Open	☑ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	Unistrut	☑ CMU		☐ Height- 4"	☐ 48in	
Other	Other	☐ Other	Other	☑ Other	☑ Door Size	
	_	_	BUILDING SERVI	CES	_	_
DUCT	ED LAB EQUIP			SERVICES	CASEWO	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel	•		☐ Hand Wash		Fixed Casework	
☐ Canopy	•		☐ Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	GE
✓ Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per H	our		Other		- ☑ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust				Peg Board	
P	OWER AND DAT	Ā	LABORATO	RY SERVICES	✓ Lockers	Note B.1
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	).C.	✓ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	ł	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	
☑ 120V	Computer				☐ Acoustics	
☐ 208V	'		☐ Other/Specialty		☑ Humidity	
☐ 480V	'	_	HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	Flammable	☐ Radioactivity	
Other	'		☐ Toxic	☐ Radioactive	Other	
	'		Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISUA	<b>AL</b>
Ambient Light Leve			☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☑ PPE	Note G.1	SECUR	ΙΤΥ
✓ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		☐ Access Control	
☐ Other			Other		☐ Other	

 Program ID:
 2.75
 Room Name:
 PPE Storage (Shared)
 Department:

 Quantity:
 1
 Area (SF):
 121
 Occupancy:
 2
 Chemistry

**NOTES** 

# A. Adjacency:

Refer to the adjacency diagrams.

B. Equipment: None.

C. Processes associated with the lab area/ department:

### D. Primary Areas:

1. None

# E. Environmental Conditions:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

### F. General Notes:

# G. RDS Notes:

1. Locker/Storage for PPE and change/gowning in event of emergency.

Program ID:	2.76	Room Name:	Cylinder Storage	(Shared)		Department:
Quantity:	1	Area (SF):	121	Occupancy	: 2	Chemistry
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☑ Epoxy	<b>☑</b> GWB	<b>☑</b> GWB	□ Ероху	☑ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	□ аст	☐ Mold/Moisture	✓ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
☐ Other	Other	Other	Other	☐ Other	☑ Door Size	
			BUILDING SERVI			
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEWORK	
Fume Hood			Lab Sink		Mobile Casework	
☐ Snorkel			☐ Hand Wash		Fixed Casework	
☐ Canopy	-		Cup Sink	-	Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
☐ Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORAGE	
✓ Pressurization	Negative		☐ Floor Sink		✓ Tall Cabinets	
☐ Air Change Per H	our		Other		✓ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	:)			☐ Peg Board	
<b>POWER AND DAT</b>	Ά		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☐ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQUIRE	MENTS
☐ Ceiling Mounted	☐ Floor Mountee	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	
☑ 120V	Computer				☐ Acoustics	
□ 208V			☐ Other/Specialty		☐ Humidity	
☐ 480V			HAZARDOUS MA <sup>.</sup>	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	☐ Other	
			Other			
LIGHTING			SAFETY / FIR	E PROTECTION	VISU	<b>NL</b>
Ambient Light Leve	<u>ا</u>		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		_ ☐ Monitor	
Zoned Lighting			☐ Goggles		_ ☐ Projection	
☐ Dimmer	•		<b>☑</b> PPE		SECURITY	
✓ Occ Sensor	•		☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		✓ Access Control	
Other			Other	-	☐ Other	

 Program ID:
 2.76
 Room Name:
 Cylinder Storage (Shared)
 Department:

 Quantity:
 1
 Area (SF):
 121
 Occupancy:
 2
 Chemistry

**NOTES** 

### A. Adjacency:

Refer to the adjacency diagrams.

B. Equipment: None

C. Test: None

D. Primary Areas: n/a

# E. Environmental Conditions:

1. Temperature: 72-75 +/-2F

2. Humidity: 23-55%RH+/- 5%

### F. General Notes:

- 1. Provide automatic switchover for each of the cylinder gases.
- 2. Provide cylinder racks in room for about 8 cylinders.
- 3. . Chemical that shall be used in Analytical labs:
  - Nitrous Oxide and Acetylene (as well as compressed air) are needed to operate the Atomic Absorption instrument (AA). Nitrous Oxide and Acetylene are provided by cylinders. Nitrous Oxide's purity should be UN1070 – AA grade -minimum purity specification 99.0% \*Requires a 120V

# G. RDS Notes:

1. Refer to RDS 2.72.

Program ID:	2.77	Room Name:	Chiller Room			Department:
Quantity:	1	Area (SF):		Occupancy:	0	Chemistry
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☑ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	✓ CMU		☐ Height- 4"	☐ 48in	
☐ Other	Other	☐ Other	☐ Other	☐ Other	<b>☑</b> Door Size	
			BUILDING SERVI			
	ED LAB EQUIP	MENT		G SERVICES	CASEW	ORK
Fume Hood			Lab Sink		Mobile Casework	
Snorkel			Hand Wash		Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
	HVAC		☐ Scullery Sink		STORA	GE
Pressurization	Negative		✓ Floor Sink	-	☐ Tall Cabinets	
Air Change Per Ho	our		Other	Sediment trap @	☐ Tall Shelving	
☐ Air Filtration (Sup				sink	Peg Board	
P	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen	-	☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mounted	d	Purified Water	-	☐ Vibration Control	
☐ Emergency	☐ UPS		☐ Vacuum		☐ Temperature	
☐ 120V				-	☐ Acoustics	
□ 208V			☐ Other/Specialty		☐ Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☐ Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			☐ Other			
	LIGHTING			E PROTECTION	VISU	<b>NL</b>
Ambient Light Leve			☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			□ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		Access Control	
Other			Other		☐ Other	

 Program ID:
 2.77
 Room Name:
 Chiller Room
 Department:

 Quantity:
 1
 Area (SF):
 Occupancy: 0
 Chemistry

**NOTES** 

# A. Adjacency:

Refer to the adjacency diagrams.

# B. Equipment:

1.

C. Processes associated with the lab area/ department:

## D. Primary Areas:

1. None

# E. Environmental Conditions:

1. Temperature: 72-75 +/-2F 2. Humidity: 23-55%RH+/- 5%

3. Acoustic: NC-36

# F. General Notes:

# G. RDS Notes:

1. Refer to RDS 2.72.

Program ID:	2.81	Room Name:	Open Lab			Department:
Quantity:	1	Area (SF):	1573	Occupancy:		НМА
Function:	The HMA Lab p standards.	erforms physical te	sting of HMA/Micros	surfacing according t	o ASTM/AASHTO	-
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR
☑ Epoxy	<b>☑</b> GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		☐ Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Casing Opening	
✓ Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	<b>✓</b> Size	Overhead door
Note G.1	Note G.1, G.5	Note G.1	Note G.1	Note G.1	✓ Other	Note G.1, G.3
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	G SERVICES	CASEV	VORK
☑ Fume Hood	See sub areas		☐ Lab Sink		☑ Mobile Casework	carts / shelves
Snorkel			☑ Hand Wash		☑ Fixed Casework	base cabinets
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		✓ Counter Material	Stainless Steel
<b>☑</b> Other	all ovens vente	d ro outside	☑ Floor Drain	Note G.7	Other	
	HVAC		☐ Scullery Sink		STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our See 6ACH	l min.	Other		☑ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust	)	•		Peg Board	
PC	OWER AND DAT	Ā	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☑ Compressed air	Note G.4	SPECIAL REQ	UIREMENTS
Ceiling Mounted	power Reels		☐ Purified Water		☑ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note G.2		☐ Natural Gas		Acoustics	Note E.3
<b>☑</b> 208V	Note G.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS I	MTRL STORAGE	☐ Sound Isolation	
☐ Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	✓ Flammable	☐ Radioactivity	
✓ Other	Note G.3		☐ Toxic	☐ Radioactive	Other	
			☑ Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	JAL
Ambient Light Leve	60-70 FC		☐ Safety Shower		☑ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECU	RITY
☐ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet type	☑ Keyed Entry	
☑ Natural Light	Optional		☑ Fire Extinguisher	Note G.6	☐ Access Control	
☐ Other			☐ Other		☐ Other	

Program ID:	2.81	Room Name: Open Lab		Department:
Quantity:	1	Area (SF): 1573	Occupancy:	НМА
		NOTEC		

A. Adjacencies: Access to loading dock and entrance.

Open Lab Includes the following areas -

2.81.1 Mix

2.81.2 Ovens

2.81.3 Compaction/Mixing/Splitting

2.81.4 Testing

## B. Equipment: See sub areas RDS

## C. Test:

The HMA Lab performs physical testing of HMA/Microsurfacing according to ASTM/AASHTO standards., which includes sealed concrete.

### D. Processes that take place in the lab:

- 1. Sample logging 2.83.
- 2. Aggregate sample breakdown/fractionation to specific sizes 2.84.
- 3. Mixing HMA/microsurfacing component materials and compacting HMA specimens.
- 4. Cutting compacted HMA specimens 2.84.
- 5. Testing HMA from asphalt binder extraction to measuring weight change of asphalt release agent samples 2.85.
- 6. Chemical Storage (TCE).

#### E. Environmental Conditions:

- 1. Temperature: 68°F 86°F per AASHTO R18 as storage area for samples.
- 2. Humidity: 23-55% RH +/-5%
- 3. Acoustic: NC-36

# F. General Notes:

- 1. Calibrating equipment on a regular basis.
- 2. Cleaning equipment, pans, etc.
- 3. Refer to the Mechanical, Electrical, Plumbing Narrative.

- 1. Final interior finishes to be selected by the Design Team selected for this project.
- 2. Refer to the Equipment matrix for power, water, gas requirements etc.
- 3. Refer to the Narratives for additional information.
- 4. Compressed Air for the AMPT as well as other equipment.
- 5. Provide 12 foot ceilings.
- 6. Provide Fire Extinguisher in each section.
- 7. Trench drain under Hamburg wheel machine.

Program ID:	2.81.1a&b	Room Name:	Open Lab - Mi	ix (Compacted	and Loose)	Department:
Quantity:	1	Area (SF):	242	Occupancy:		НМА
Function:	Mixing HMA cor	- mponent materials	and compacting HM	- A specimens		_
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DO	OR .
<b>□</b> Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ CMU		☐ Height- 4"	Cased Opening	
✓ Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Size	6' x 8'
Note G.1	Note G.1	Note G.1	Note G. 1	Note G. 1	<b>☑</b> Other	Note G.2
			BUILDING SERVI	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	SERVICES	CASEV	VORK
☑ Fume Hood	Note B.2		☐ Lab Sink		☑ Mobile Casework	Note G.4
Snorkel			. Hand Wash		■ Fixed Casework	base cabinets
☑ Canopy	Note E.4		Cup Sink		- ✓ Casework Material	Steel
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	Stainless Steel
Other			☐ Floor Drain		☑ Other	Note G.6
	HVAC		☐ Scullery Sink		STOR	AGE
✓ Pressurization	Refer 2.81		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our Refer 2.	81	Other		_ ☑ Tall Shelving	Note G.7
☐ Air Filtration (Supp	oly and/or Exhaust	)	•		Peg Board	
PC	OWER AND DAT	A	LABORATO	RY SERVICES	☐ Lockers	
☑ Island Bench	power reels abo	ove; Note G.8	□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	).C.	☑ Compressed air	Note G.9	SPECIAL REQ	UIREMENTS
☑ Ceiling Mounted	Note G.5		☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note G.3		☐ Natural Gas		☐ Acoustics	
☑ 208V	Note G.3		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS I	MTRL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			Toxic	☐ Radioactive	☐ Other	
			Other			
	LIGHTING			E PROTECTION	VISU	JAL
Ambient Light Leve			☐ Safety Shower		✓ White Board	
☐ Task Light			<b>☑</b> Eyewash	Note G.1	☐ Monitor	
Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUI	RITY
Occ Sensor			In-Use Signage		ССТУ	-
Window Treatmen			Sprinkler Type	Note G.1	✓ Keyed Entry	
☑ Natural Light	Optional		Fire Extinguisher	Note G.1	Access Control	
Other			☐ Other		Other	

Room Name: Open Lab - Mix (Compacted and Loose) Program ID: **Department:** 2.81.1a&b 1 Area (SF): 242 Quantity: Occupancy: **HMA** NOTES

#### A. Adjacencies:

Mixing Area Includes the following areas:

- 2.81.1a Compacted Mix
- 2.81.1b Loose Mix

# B. Equipment: Mixer, splitter and Scales.

- 1. Refer to the HMA Equipment Matrix for the OFOI and OFCI equipment.
- 2. Provide a new Chemical fume hoods:
  - a) Floor Mounted fume hood for Parts Cleaner 36D x 51W (ID) Qty:1
    - Utilities: No Natural gas or specialty gases or water needed at fume hoods. Provide 4- 120V outlets in back of all fume hoods. No 208V req'd.
  - b) Benchtop fume hood for Pots/Pans Drying 32D x 51W (ID) Qty:1
    - Utilities: No Natural Gas or specialty gases or water needed at fume hoods. No electrical required. in the fume hood.

C. Test:- Refer to RDS 2.81.

D. Test Description:-Refer to RDS 2.81.

## E. Environmental Conditions:

- 1. Temperature: 68°F 86°F per AASHTO R18 as storage area for samples.
- 2. Humidity: 23-55% RH +/-5%
- 3. Acoustic: NC-36
- 4. Dust collection via canopy

## F. General Notes:

- a. Refer to the Mechanical, Electrical, Plumbing Narrative.
- b. Part cleaner Chemicals shall be used in these fume hoods.

- 1. Refer to the open Lab RDS 2.81.
- 2. Provide overhead door to loading dock/shipping double door to HMA open lab
- 3. Refer to the Equipment matrix for power, water, gas requirements etc.
- 4. Provide mobile carts.
- 5. Provide ceiling mounted power reels.
- 6. Provide heat resistant, heavy duty countertop on island bench and tables.
- 7. Provide heavy duty tall shelving.
- 8. Provide power along sides of Island bench.
- 9. Provide Compressed Air at 120psi with regulator, for equipment like the extruder etc.

Program ID:	2.81.2	Room Name:	Open Lab - Ov	ens		Department:
Quantity:	1	Area (SF):	363	Occupancy:	3	НМА
Function:		_		_		_
			INTERIOR FINISH	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ Cased Opening	
☑ Other	<b>☑</b> Other	<b>☑</b> Other	✓ Other	<b>☑</b> Other	<b>✓</b> Size	6' x 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	Other	
			BUILDING SERVI	CES		
<b>DUCTED LAB EQU</b>	JIPMENT		PLUMBING SERV	ICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		Counter Material	
<b>☑</b> Other	exhaust for all	ovens	☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	\GE
✓ Pressurization	Refer 2.81		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Refer 2.8	1	Other		_ ☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust	<u>:</u> )	-		Peg Board	
<b>POWER AND DAT</b>	Ά		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	0.C.	Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounte	d	☑ Purified Water	DI water	☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☐ 120V	Note G.2		-		Acoustics	
<b>☑</b> 208V	Note G.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	Flammable	☐ Radioactivity	
<b>✓</b> Other	Note G.3, G.4		П Тохіс	☐ Radioactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.1	☐ Keyed Entry	
☑ Natural Light	if possible		☑ Fire Extinguisher	Note G.1	☐ Access Control	
☐ Other			☐ Other		☐ Other	

Program ID:	2.81.2	Room Name:	Open Lab	- Ovens	Department:
Quantity:	1	Area (SF):	363	Occupancy: 3	НМА
			NOTE	•	

A. Adjacencies: Adjacent to the Mix Area

# B. Equipment:

Ovens (Qty 5; 41"W x 28"D x 49"H, 90"W x 45"D x 76"H, 66"W x 36"D x 74"H, (2) 44"W x 42"D x 51"H). Refer to HMA equipment Matrix for the OFOI and OFCI equipment.

C. Test: Refer to RDS 2.81

D. Test Description: Refer to RDS 2.81

# E. Environmental Conditions:

- 1. Temperature: 68°F 86°F per AASHTO R18 as storage area for samples.
- 2. Humidity: 23-55% RH +/-5%
- 3. Acoustic: See RDS 2.81.

# F. General Notes:

- 1. Refer to the Open Lab RDS 2.81
- 2. Refer to the Equipment matrix for power, water, gas requirements etc.
- 3. Back-up Power for all Long-Term Aging Ovens
- 4. Refer to the Narratives for additional information.

Program ID:	2.81.3	Room Name:	Open Lab - Co	mpaction/Mixi	ng/Splitting	Department:
Quantity:	1	Area (SF):	484	Occupancy:	3	HMA
Function:	Mixing, splitting	g, and compacting l	HMA	_		_
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□ сми		☐ Height- 4"	☐ Cased Opening	
☑ Other	<b>✓</b> Other	<b>☑</b> Other	<b>☑</b> Other	☐ Other	Size	
Note G.1	Note G.1	Note G.1	Note G,1	Note G.1	☑ Other	Note G.1
			<b>BUILDING SERVI</b>	CES		
DUCT	ED LAB EQUIP	MENT	PLUMBING	SERVICES	CASEW	/ORK
✓ Fume Hood	B.2		☐ Lab Sink		☑ Mobile Casework	carts
Snorkel	-		☐ Hand Wash		✓ Fixed Casework	base cabinets
☐ Canopy	'		☐ Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		✓ Counter Material	Stainless Steel
Other			☐ Floor Drain		Other	
	HVAC		✓ Scullery Sink	Sediment Trap	STOR	AGE
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our Note G.3		☐ Other		■ Tall Shelving	heavy duty
☐ Air Filtration (Supp	oly and/or Exhaust)		•		☐ Peg Board	
PC	OWER AND DAT	A	LABORATO	RY SERVICES	Lockers	
☑ Island Bench	Island & Wall M	lounted Power	□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☑ Compressed air	See G.4	SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☑ Floor Mounted	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note G.2		☐ Natural Gas		☐ Acoustics	
□ 208V	Note G.2		☐ Other/Specialty		✓ Humidity	Note E.2
☐ 480V			HAZARDOUS I	MTRL STORAGE	✓ Sound Isolation	
✓ Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	JAL
Ambient Light Leve	60-80FC		☐ Safety Shower		<b>☑</b> White Board	
☐ Task Light			<b>☑</b> Eyewash	Note G.1	☐ Monitor	
☐ Zoned Lighting			<b>☑</b> Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUI	RITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.1	☐ Keyed Entry	
✓ Natural Light	if possible		☑ Fire Extinguisher	Note G.1	☐ Access Control	
☐ Other			☐ Other		☐ Other	

Program ID: 2.81.3 Room Name: Open Lab - Compaction/Mixing/Splitting Department:

Quantity: 1 Area (SF): 484 Occupancy: 3 HMA

**NOTES** 

A. Adjacencies: Refer to RDS 2.81

## B. Equipment: Pine Gyratory Compactors

- 1. Refer to HMA equipment Matrix for the OFOI and OFCI equipment.
- 2. Fumhood shared with Mix Area, Refer to RDS 2.81.1.

C. Tests: Refer to RDS 2.81.

D. Test Description: Refer to RDS 2.81.

# E. Environmental Conditions:

- 1. Temperature Control in Lab of 68°F 86°F per AASHTO R18.
- Humidity: Refer to RDS 2.81.
   Acoustic: Refer to RDS 2.81.

#### F. General Notes:

Refer to Narrative for Additional information.

- 1. Refer to the Open Lab RDS 2.81
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Refer to the Narratives for additional information.
- 4. Provide 120psi compressed air for the Extruder as well as other equipment in the room.

Program ID:	2.81.4	Room Name:	Open Lab - Tes	sting - Microsur	osurfacing/Instrumen Department			
Quantity:	1	Area (SF):	484	Occupancy	:	НМА		
Function:	Laboratory t	testing of Hot-Mix As	phalt (HMA) with va	arious types of equi	pment	_		
			INTERIOR FINIS	HES				
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .		
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal			
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	☐ Cove	☐ Wood			
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		Glass			
☐ Sealed Concrete	☐ Unistrut	□ сми		☐ Height- 4"	Cased Opening			
<b>✓</b> Other	<b>☑</b> Other	<b>✓</b> Other	✓ Other	<b>☑</b> Other	☐ Size			
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	<b>☑</b> Other	Note G.1		
			BUILDING SERVI	CES				
DUCT	ED LAB EQUI	PMENT	PLUMBIN	G SERVICES	CASEV	VORK		
☐ Fume Hood			☑ Lab Sink		✓ Mobile Casework	carts		
☐ Snorkel			✓ Hand Wash		✓ Fixed Casework	base cabinets		
☐ Canopy			☐ Cup Sink		Casework Material			
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	Stainless Steel		
☐ Other			☑ Floor Drain	Trench	Other			
	HVAC		✓ Scullery Sink	Sediment Trap	STOR	AGE		
✓ Pressurization	See RDS 2.81	1	☐ Floor Sink		☐ Tall Cabinets			
☑ Air Change Per H	our See RI	DS 2.81	Other		 ☑ Tall Shelving			
☐ Air Filtration (Sup	ply and/or Exhau	st)	-		Peg Board			
P	OWER AND DA	ATA	LABORATO	RY SERVICES	Lockers			
☑ Island Bench	Note G.7		☐ Nitrogen		☐ Mobile Cabinets			
☑ Perimeter Bench	Duplex @ 24'	' O.C., Note G.7	☑ Compressed air	Note G.6	SPECIAL REQ	UIREMENTS		
Ceiling Mounted	Note G.5		☑ Purified Water	DI Water	☑ Vibration Control			
☑ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.3		
☑ 120V	Note G.2				☐ Acoustics			
<b>☑</b> 208V	Note G.2		☐ Other/Specialty	_	✓ Humidity	Note E.2		
☐ 480V			HAZARDOUS MTF	RL STORAGE	☐ Sound Isolation			
☐ Data	☑ Wi-Fi Route	r 🔲 Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity			
Other			☐ Toxic	☐ Radioactive	☐ Other			
			Other					
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	JAL		
Ambient Light Leve	60-80FC		☐ Safety Shower		☑ White Board			
Task Light			<b>☑</b> Eyewash	at all sink	☐ Monitor			
☐ Zoned Lighting			☐ Goggles		☐ Projection			
☐ Dimmer			☐ PPE		SECUI	RITY		
Occ Sensor			☐ In-Use Signage		□ сст∨			
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.3	Keyed Entry			
✓ Natural Light	Optional		☑ Fire Extinguisher	Note G.3	Access Control			
☐ Other			☐ Other		Other			

Program ID: 2.81.4 Room Name: Open Lab - Testing - Microsurfacing/Instrumen Department:

Quantity: 1 Area (SF): 484 Occupancy: HMA

#### **NOTES**

### A. Adjacencies:

Testing includes the following areas Microsurfacing 2.82.1.a and Instrument 2.82.1.b.

<u>B. Equipment:</u> AMPT, Hamburg, I-fit, TSR, Microsurfacing (Gmm & Gmb), Core dry (x2), water baths Refer to the HMA equipment matrix.

### C. Test:

## D. Test Description:

#### E. Environmental Conditions:

- 1. Temperature: 68°F 86°F per AASHTO R18 as storage area for samples.
- 2. Humidity: Refer to RDS 2.81.
- 3. Acoustic: Refer to RDS 2.81.

#### F. General Notes:

1. Refer to the Equipment matrix for power, water, gas requirements etc.

- 1. Final interior Finishes, refer RDS 2.81.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Refer to the Narratives for additional information.
- 4. Provide carts and Mobile shelves.
- 5. Provide ceiling mounted power reels.
- 6. Provide Compressed air (CA) for Hamburg and Microsurfacing Equipment.
- 7. Provide wall mounted and Island bench mounted power.

Program ID:	2.83	Room Name:	Receiving			Department:
Quantity:	1	_ Area (SF):	605	Occupancy	y: 10	- нма
Function:	Aggregate sar	<del>_</del> nple breakdown/fra	ctionation to specifi	c sizes		_
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .
<b>☑</b> Epoxy	<b>✓</b> GWB	☐ GWB	<b>☑</b> Epoxy	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	□ ACT	☐ Mold/Moisture	☑ Acrylic PNT	Cove	☐ Wood	-
☐ Rubber Flooring	☐ Open	✓ Impact Resistan	t 🗖 FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	-
<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>☑</b> Other	<b>✓</b> Size	6' X 8'H
See Note 1	See Note 1,3	See Note 1	See Note 1	See Note 1	<b>☑</b> Other	Overhead Door
			<b>BUILDING SERVI</b>	CES		
DUCT	ED LAB EQUIF	PMENT	PLUMBIN	G SERVICES	CASEV	<b>VORK</b>
☐ Fume Hood			☐ Lab Sink		✓ Mobile Casework	Carts
Snorkel			☐ Hand Wash	-	— Fixed Casework  ✓ Fixed	base cabinets
☐ Canopy			Cup Sink		 ☐ Casework Materia	I
☐ Biological Safety	 Cabinet		☐ Deep Sink		✓ Counter Material	Dekton
Other		-	☐ Floor Drain		☐ Other	
	HVAC		☐ Scullery Sink		STOR	AGE
☑ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
✓ Air Change Per Ho	our 6 ACH r	nin.	_ ☐ Other		☐ Tall Shelving	heavy duty
☐ Air Filtration (Sup		t)			Peg Board	
	OWER AND DA		LABORATO	RY SERVICES	Lockers	
✓ Island Bench	power reels or	· along side	□ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24"	O.C.	☐ Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	Purified Water		✓ Vibration Control	
☐ Emergency	☐ UPS		_ ☐ Vacuum	-	✓ Temperature	Note E.1
☑ 120V	Note G.2		_		· ✓ Acoustics	Note E.3
□ 208V			Other/Specialty		 ☑ Humidity	Note E.2
☐ 480V			- <u> </u>	ATERIAL STORAG	E Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	☐ Comm.	Acid/ Corrosive	☐ Flammable	Radioactivity	
Other	-		Toxic	☐ Radioactive	Other	
	-		<b>✓</b> Other	_		
	LIGHTING		SAFETY EQUIP./	FIRE PROTECTIO	N VISU	JAL
Ambient Light Leve	e 60-70FC		☐ Safety Shower		✓ White Board	
☐ Task Light			_ ☑ Eyewash	At all sinks	 ☐ Monitor	-
☐ Zoned Lighting			_ ☐ Goggles		Projection	-
□ Dimmer			□ PPE		SECUI	RITY
☐ Occ Sensor			_ ☐ In-Use Signage		✓ CCTV	
☐ Window Treatmen	t		_ ☑ Sprinkler Type		 ☐ Keyed Entry	Note G.6
✓ Natural Light	Optional		_		Access Control	
Other			☐ Other	-	☑ Other	

Program ID:	2.83	Room Name:	Receiving		Department:
Quantity:	1	Area (SF):	605	Occupancy: 10	HMA
			NOTES		

A. Adjacencies: Access to loading dock and entrance and double door to HMA Lab. This receiving includes Logging/Storage (2.83.1) and Pallet/Large Storage (2.83.2)

B. Equipment: Refer to the HMA equipment matrix.

## C. Tests:

# D. Test Description:

#### E. Environmental Conditions:

- 1. Temperature: Control in Lab of 68°F 86°F per AASHTO R18 as storage area for samples
- 2. Humidity: 23-55% RH +/-5%
- 3. Acoustic: NC-36

## F. General Notes

a. Many samples delivered throughout the year, mostly 40-lb. bags

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide 12ft ceiling height, clearance for specific machinery
- 4. Many samples delivered throughout the year, mostly 40-lb. bags
- 5. Need space for 9 pallets (use of pallet racks). Double stack (total of 18 pallets).
- 6. Refer to Security Narrative

Program ID:	2.84	Room Name:	Loose Lab			Department:	
Quantity:		Area (SF):	363	Occupancy:		HMA	
Function:	Cutting compac	ted HMA specimen	s and Gradations	_		-	
INTERIOR FINISHES							
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R	
□ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal		
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood		
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass		
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening		
<b>✓</b> Other	✓ Other	Other	✓ Other	✓ Other	✓ Size	6' x 8'	
Note G.1	Note G.1	See Note 1	See Note 1	See Note 1	✓ Other	Note G.1	
			BUILDING SERVIO	CES			
DUCT	ED LAB EQUIP	MENT	PLUMBING	SERVICES	CASEW	ORK	
✓ Fume Hood	Dust Hood		✓ Lab Sink		✓ Mobile Casework	Carts	
Snorkel			☐ Hand Wash		✓ Fixed Casework	base cabinets	
☐ Canopy			Cup Sink		☑ Casework Material	Steel	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	Select One	
Other			✓ Floor Drain		☑ Other	Note G.4	
	HVAC		✓ Scullery Sink	Sediment Trap	STORA	\GE	
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets		
☑ Air Change Per Ho	our 6 ACH mi	n.	✓ Other	Note G.6	- ☑ Tall Shelving	Note G.5	
☐ Air Filtration (Sup	ply and/or Exhaust	)	•		Peg Board		
PC	OWER AND DAT	ГА	LABORATO	RY SERVICES	Lockers		
✓ Island Bench	Along side w/ p	oower reels	☐ Nitrogen		☐ Mobile Cabinets		
☑ Perimeter Bench	Duplex @ 24" (	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS	
Ceiling Mounted	Mounted Reels		☐ Purified Water		☑ Vibration Control		
☐ Emergency	☐ UPS		☐ Vacuum		✓ Temperature	Note E.1	
<b>☑</b> 120V	Note G.2		-		☐ Acoustics		
□ 208V	Note G.2		☐ Other/Specialty		■ Humidity	Note E.2	
☐ 480V			<b>HAZARDOUS MA</b>	TERIAL STORAGE	✓ Sound Isolation		
<b>☑</b> Data	☑ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity		
Other			☐ Toxic	☐ Radiactive	<b>☑</b> Other	Dust collection	
			Other			,	
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL	
Ambient Light Leve	60-70FC		☐ Safety Shower		☑ White Board		
☐ Task Light			<b>☑</b> Eyewash	At all Sinks	☐ Monitor		
☐ Zoned Lighting			☐ Goggles		Projection		
Dimmer			☐ PPE		SECUR	ITY	
Occ Sensor			☐ In-Use Signage		□ сст∨		
☐ Window Treatmen	t		✓ Sprinkler Type	Wet type	☐ Keyed Entry		
☐ Natural Light			☑ Fire Extinguisher		☐ Access Contol		
Other			Other		Other		

Program ID:	2.84	Room Name:	Loose Lab		Department:
Quantity:		Area (SF):	363	Occupancy:	НМА
			NOTEC		

#### A. Adjacencies:

1. Direct access via double Door to HMA Lab

<u>B. Equipment:</u> Laboratory Sifter (qty 2; each 19"W x 28"D x 60"H), Masonry Saw Diamond Blade (24"W x 52"D x 69"H), Generator (27"W x 22"D x 22"H), Core Drill (10"W x 19"D x 45"H), Wet Saw (22"W x 40"D x 47"H), Sieve Shaker (28"W x 35"D x 50"H), Diamond Saw Enclosure (42"W x 45"D x 91"H), Wet Saw Enclosure (42"W x 45"D x 91"H).

## C. Tests: -

# D. Test Description: -

### E. Environmental Conditions:

- 1. Temperature: Control in Lab of 68°F 86°F per AASHTO R18 as storage area for samples
- 2. Humidity: 23-55% RH +/-5%
- 3. Acoustic:

# F. General Notes: -

a. Dust collection is needed to collect the silica dust that will be generated in this space. Ensure that filters are provided at exhaust grilles

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide 12ft ceiling height, clearance for specific machinery
- 4. Provide a heavy duty hard surface, like dekton solid surface (Lab line).
- 5. Provide heavy duty shelving.
- 6. Trench drain under wet saws.

Program ID:	2.85	Room Name:	Extraction			Department:
Quantity:		Area (SF):	605	Occupancy:	10	НМА
Function:	Extractions of	HMA and Microsurfa	ce Samples			
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R
☑ Epoxy	<b>☑</b> GWB	☐ GWB	□ Ероху	✓ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		✓ Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	Cased Opening	
<b>☑</b> Other	<b>☑</b> Other	☑ Other	<b>☑</b> Other	<b>☑</b> Other	<b>✓</b> Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	<b>☑</b> Other	Note G.1
			<b>BUILDING SERVI</b>	CES		
DUCTED LAB EQUIPMENT		PLUMBING SERVICES		CASEWORK		
✓ Fume Hood	Note B.2		✓ Lab Sink		✓ Mobile Casework	See Note 4
☐ Snorkel			✓ Hand Wash		✓ Fixed Casework	base cabinets
☐ Canopy			Cup Sink		☑ Casework Material	Steel
☐ Biological Safety (	Cabinet		☐ Deep Sink		✓ Counter Material	Stainless Steel
<b>☑</b> Other	Note G.4		☐ Floor Drain		Other	
	HVAC		☑ Scullery Sink	Sediment Trap	STOR	AGE
Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our See 6ACH n	nin.			☑ Tall Shelving	
☐ Air Filtration (Supp	ply and/or Exhaust	t)	•		Peg Board	
PC	OWER AND DA	TA	LABORATOR	RY SERVICES	Lockers	
✓ Island Bench	power reels or	along side	☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24"	O.C.	□ Compressed air		SPECIAL REQ	UIREMENTS
✓ Ceiling Mounted	☐ Floor Mounted		□ Purified Water		☑ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
<b>☑</b> 120V	See Note 2		•		✓ Acoustics	Note E.3
<b>☑</b> 208V	See Note 2		☑ Other/Specialty	reflux ext water	✓ Humidity	Note E.2
☐ 480V			HAZARDOUS N	TRL STORAGE	☐ Sound Isolation	
☐ Data	☑ WiFi Router	☐ Comm.	☑ Acid/ Corrosive	<b>✓</b> Flammable	☐ Radioactivity	
<b>✓</b> Other			☑ Toxic	Radiactive	☐ Other	
			Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	AL
Ambient Light Leve	60-80 FC		☐ Safety Shower		☑ White Board	
☐ Task Light			<b>☑</b> Eyewash	at all sinks	☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
Dimmer			☐ PPE		SECUF	RITY
☐ Occ Sensor			☐ In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet Type	☐ Keyed Entry	
☑ Natural Light	Optional		☑ Fire Extinguisher		☐ Access Contol	
☐ Other			Other		Other	

Program ID:	2.85	Room Name:	Extraction		Department:
Quantity:	•	Area (SF):	605	Occupancy: 10	НМА
			NOTES		

A. Adjacencies: Connected to the Loose Area and the HMA Open lab. Extraction included the Release Agents Area (2.85.1).

<u>B. Equipment:</u> Forced Air Oven (44"W x 29"D x 51"H), TCE Reclaimer (22"W x 40"D x 44"H), Chemical Storage Cabinet (60"W x 35"D x 66"H), Chemical Storage Cabinet (44"W x 19"D x 66"H), equipment stored in fume Hood (qty 3) centrifuges, Reflux (Multiple).

- 2. Provide new fume hoods:
  - a. Benchtop 6' Fumehood 28D x 60W (ID) Qty:1 for Centrifuge
  - b. Benchtop 6' Fumehood (Tall Window Access)- 24D x 55W (ID) Qty:1 for High Speed Centrifuge
  - c. Benchtop 5' Fumehood 25D x 48W (ID) Qty:1 for Reflux i)Need Piped Water and electrical raceway.
  - f. Benchtop 5' Fumehood 25D x 48W (ID) Qty:1 for Ultrasonic
  - g. Benchtop 5' Fumehood 25D x 48W (ID) Qty:1 for Extraction Air Drying
  - h. Floor mounted 6' (46" interior depth) Fumehood Qty: 1 for for TCE Reclaimer
  - i. General note: Provide 120V outlets Raceway at back of all fumehoods unless noted otherwise.

# C. Test: Chemical test

# D. Test Description:

### E. Environmental Conditions:

1. Temperature: Control in Lab of 68°F - 86°F per AASHTO R18

2. Humidity: 23-55% RH +/-5%

3. Acoustic: NC-36

## F. General Notes:-

a. Storage Cabinets for TCE with exhauct connect for fumes extraction.

# G. RDS Notes:-

- 1. Final interior Finishes to be selected by the Design Team selected for this project.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Provide vented Fire rated cabinets for the storage of TCE chemical.
- 4. Provide carts and Mobile shelves
- 5. Provide ceiling mounted power reels.

Program ID:	2.85.1	Room Name:	Extraction - R	elease Agent		Department:
Quantity:	1	Area (SF):		Occupancy	:	НМА
Function:	Gravimetric te	esting of Asphalt Rele	ease Agents			
			INTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .
<b>□</b> Ероху	☐ GWB	☐ GWB	<b>□</b> Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☐ Acrylic PNT	Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☐ Impact Resistant	☐ FRP		<b>✓</b> Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☐ Height- 4"	☐ Cased Opening	
<b>☑</b> Other	✓ Other	<b>☑</b> Other	<b>☑</b> Other	Other	<b>✓</b> Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	<b>☑</b> Other	Note G.1
			BUILDING SERVI	CES		
DUCT	ED LAB EQUI	PMENT	PLUMBING	SERVICES	CASEV	<b>VORK</b>
☑ Fume Hood	same as Extra	action	☐ Lab Sink		✓ Mobile Casework	See Note 4
☐ Snorkel			☐ Hand Wash		■ Fixed Casework	base cabinets
☐ Canopy			Cup Sink		Casework Material	Steel
☐ Biological Safety (	Cabinet		☐ Deep Sink			Stainless Steel
Other			☐ Floor Drain		Other	
	HVAC		✓ Scullery Sink	Sediment Trap	STOR	AGE
✓ Pressurization	Negative		✓ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our See RDS	2.85	Other		■ Tall Shelving	
☐ Air Filtration (Supp	ply and/or Exhau	st)	-		Peg Board	
PC	OWER AND DA	ATA	LABORATO	RY SERVICES	Lockers	
☑ Island Bench	power reels o	r along side	☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	' O.C.	☐ Compressed air		SPECIAL REQ	UIREMENTS
☑ Ceiling Mounted	Reels		☐ Purified Water		☐ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Note G.2		•		Acoustics	
☑ 208V	Note G.2		☐ Other/Specialty		 ☑ Humidity	Note E.2
☐ 480V			HAZARDOUS MA1	ERIAL STORAGE	☐ Sound Isolation	
☐ Data	☑ WiFi Router	Comm.	☑ Acid/ Corrosive	<b>☑</b> Flammable	☐ Radioactivity	
✓ Other			☑ Toxic	☐ Radioactive	☐ Other	
			☑ Other			
	LIGHTING		SAFETY / FIR	E PROTECTION	VISU	JAL
Ambient Light Leve	2		☐ Safety Shower		✓ White Board	
☐ Task Light	60-80 FC		<b>☑</b> Eyewash	at all sink	☐ Monitor	
☐ Zoned Lighting			☐ Goggles		☐ Projection	
Dimmer			☐ PPE		SECUI	RITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.3	☐ Keyed Entry	
☑ Natural Light	Optional		☑ Fire Extinguisher	Note G.3	Access Contol	
☐ Other			☐ Other		☐ Other	

**HERA Laboratory planners** 

Program ID:	2.85.1	Room Name: Extraction	Department:	
Quantity:	1	Area (SF):	Occupancy:	НМА
		NO	TES	

A. Adjacencies: Connected to the Loose Area and the HMA Open lab

<u>B. Equipment:</u> Forced Air Oven (44"W x 29"D x 51"H), TCE Reclaimer (22"W x 40"D x 44"H), Chemical Storage Cabinet (60"W x 35"D x 66"H), Chemical Storage Cabinet (44"W x 19"D x 66"H), 48" Lab Hood (qty 3) . 2. Fumehoods: shared with Extraction, refer to RDS 2.85.

# C. Test:

# D. Test Description:

# E. Environmental Conditions:

- 1. Temperature: Control in Lab of 68°F 86°F per AASHTO R18
- Humidity: Refer to RDS 2.85.
   Acoustic: Refer to RDS 2.85.

## F. General Notes: -

# G, RDS Notes

- 1. Final interior Finishes, refer Extraction Lab RDS 2.85.
- 2. Refer to the equipment matrix for power, water, gas requirements etc.
- 3. Refer to the Extraction Lab RDS 2.85.
- 4. Provide carts and Mobile shelves.
- 5. Provide ceiling mounted power reels.

Program ID:	2.91	Room Name:	Staging			Department:
Quantity:	1	Area (SF):	1452	Occupancy:		Aggregate
Function:		_		_		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	✓ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ Cased Opening	
☑ Other	✓ Other	<b>☑</b> Other	<b>✓</b> Other	<b>✓</b> Other	✓ Door Size	6' X 8 <b>'</b>
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
☐ Snorkel			✓ Hand Wash		Fixed Casework	
☐ Canopy			☐ Cup Sink		- ☐ Casework Material	
☐ Biological Safety (	Cabinet		Deep Sink		- ☐ Counter Material	
Other			☐ Floor Drain		_ ☐ Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6ACH Min	ı.	☑ Other	Sediment trap @	- ☑ Tall Shelving	Note G.2
☐ Air Filtration (Supp	oly and/or Exhaust	)	•	sink	Peg Board	
<b>POWER AND DAT</b>	A		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	convenience ou	ıtlet	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mountee	d	☐ Purified Water		✓ Vibration Control	
☐ Emergency	UPS		☐ Vacuum		_ ☑ Temperature	Note E.1
☑ 120V	Computer		•		☐ Acoustics	
□ 208V			☐ Other/Specialty		■ Humidity	Note E.2
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	☑ Other	
			Other			Dust collection
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		_ ☐ Monitor	
✓ Zoned Lighting			☐ Goggles		Projection	
☐ Dimmer			☐ PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			▼ Fire Extinguisher		✓ Access Control	
			•		_	

Program ID: 2.91 Room Name: Staging Department:
Quantity: 1 Area (SF): 1452 Occupancy: Aggregate

NOTES

A. Adjacencies: Near the loading dock and Breakdown room. Refer to concept Diagram.

B. Equipment: Refer to the equipment Matrix

C. Processes: n/a

D. Primary Areas: None

E. Environmental Conditions: Refer to RDS sheet for each area.

Temperature: 68-74F +/- 2F
 Humidity: 23-55%RH+/- 5%

3. Dust collection System: Exhaust needed to collect the silica dust generated in the space.

### F. General Notes:

1. Currently use 2 hand lifts to move materials.

### G. RDS Notes:

- 1. Interior Finishes provided are the preferred option, final interior finishes shall be selected by the design team.
- 2. Heavy Duty stainless Shelves ((2) 100"W x 48"D x 192"H, (1) 100"W x 48"D x 96"H)

Program ID:	2.92	Room Name:	Breakdown	Room		Department:
Quantity:	1	Area (SF):	484	Occupancy:		Aggregate
Function:		_		_		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	☑ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	□ Wood	
☐ Rubber Flooring	<b>☑</b> Open	✓ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	<b>✓</b> Other	<b>✓</b> Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☑ Hand Wash		■ Fixed Casework	
☐ Canopy			Cup Sink		■ Casework Material	Stainless Stee
☐ Biological Safety (	Cabinet		☑ Deep Sink		Counter Material	
Other			☑ Floor Drain		☐ Other	
HVAC			☐ Scullery Sink		STORA	AGE
Pressurization			✓ Floor Sink	Note G.6	☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 ACH r	nin.	<b>☑</b> Other	Sediment trap	_ ☑ Tall Shelving	
☑ Air Filtration (Supp	oly and/or Exhaust	)	-	@ sink	☐ Peg Board	
POWER AND DAT	Ά		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	✓ Floor Mounte	d	☐ Purified Water		☑ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer		•		☐ Acoustics	
☑ 208V	Equipment		☐ Other/Specialty		✓ Humidity	Note E.2
<b>✓</b> 480V	Equipment		HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			<b>☑</b> Toxic	☐ Radioactive	✓ Other	Dust collection, Note
			<b>☑</b> Other			E.4
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
✓ Zoned Lighting			✓ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet Type	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	ABC	Access Control	
			☑ Other		☑ Other	Note G.6

Program ID: 2.92 Room Name: Breakdown Room Department:
Quantity: 1 Area (SF): 484 Occupancy: Aggregate

# **NOTES**

# A. Adjacencies:

### **B.** Equipment:

C. Processes: Refer to the RDS for each area.

### Material Flow:

- 1. Pallets received for check-in.
- 2. Bag samples combined then split into 'size outs'.
- 3. Separate storage area for drying samples.
- 4. Materials are typical washed multiple times throughout the process.
- 5. Sieves for testing sizes.
- 6. Environmental chamber testing.
- 7. Recycled solution.

### D. Primary Areas: N/A

E. Environmental Conditions: Refer to RDS sheet for each area.

- 1. Temperature: 68-74F +/- 2F 2. Humidity: 23-55%RH+/- 5%
- 3. Acoustic: NC-36
- 4. Dust collection System: Exhaust needed to collect the silica dust generated in the space.

### F. General Notes:

- 1. Openness of lab allows for easier maneuvering of large carts to transport items.
- 2. Ceilings shall be 12'-0" unless noted otherwise.
- 3. The lighting, mechanical, plumbing, power and data and, special requirement apply to all areas with the room unless noted otherwise.
- 4. The lab offices need to be directly attached to the lab space, allowing easy access to equipment should any malfunctions occur during a test.
- 5. Do not use Daiken products these have proven not to work in our lab environment. Also, the lab has very specific requirements for temperature and humidity based upon the performed tests.
- 6. Bulk Aggregate Bin Storage allows loading the aggregate from the exterior of building and get what is need from inside of the building.
- 7. Disposal 55 gallon drum ferried by forklift to dumpster. Not optimal.
- 8. Currently use 2 hand lifts to move materials.

### G. RDS Notes:

- 1. Interior Finishes provided are the preferred option, final interior finishes shall be selected by the design team.
- 2. Refer to equipment matrix for power, water, gas requirement etc.
- 3. Provide double sink scullery
- 4. Refer to Architectural narrative.
- 5. Significant sila dust shall be generated in this space. Ensure that filter are provided at exhaust grilles. Refer to mechanical narrative for additional information.
- 6. Provide Sediment trap at all sink and floor drains.

Program ID:	2.93	Room Name:	<b>Specific Gra</b>	avity (SPG)		Department:
Quantity:	1	Area (SF):	242	Occupancy		Aggregate
Function:	Drying of S	oils and Aggreg	ate	_		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOOR	
□ Ероху	<b>☑</b> GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	☐ Open	☑ Impact Resistant	☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ 48in	
☐ Other	<b>✓</b> Other	☐ Other	☐ Other	<b>☑</b> Other	☐ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	Note G.1	
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEWORK	
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		Fixed Casework	
☐ Canopy			☐ Cup Sink		☐ Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			✓ Scullery Sink	w/ 2 wells	STORAGE	
✓ Pressurization	Negative		☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6ACH Mi	n.	<b>☑</b> Other	Sediment trap	■ Tall Shelving	Note G.3
☐ Air Filtration (Sup	oly and/or Exhaus	t)		@ sink	Peg Board	
POWER AND DAT	Ά		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
☑ Perimeter Bench	Duplex @ 24"	O.C.	☐ Compressed air		SPECIAL REQUIR	EMENTS
☐ Ceiling Mounted	☑ Floor Mounte	ed	☐ Purified Water		✓ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer				☐ Acoustics	
<b>☑</b> 208V	Equipment		☐ Other/Specialty		✓ Humidity	Note E.2
<b>∡</b> 480V	Equipment		HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
Other			☐ Toxic	☐ Radioactive	✓ Other	Dust collection
			✓ Other			Dust collection
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	N VISU	AL
Ambient Light Leve	60-80FC		☐ Safety Shower		☐ White Board	
☐ Task Light			<b>☑</b> Eyewash		☐ Monitor	
✓ Zoned Lighting			✓ Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	RITY
✓ Occ Sensor			☐ In-Use Signage		□ сстv	
☐ Window Treatmen	t		☑ Sprinkler Type	Wet Type	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher	ABC	✓ Access Control	
			☐ Other		☑ Other	Note G.2

Program ID: 2.93 Room Name: Specific Gravity (SPG) Department: Quantity: 1 Area (SF): 242 Occupancy: Aggregate

# **NOTES**

## A. Adjacencies:

Specific Gravity Shared Area with HMA/Chemistry Separate room near aggregate lab.

B. Equipment: Water Tank (29"W x 23"D x 50"H)

Refer to the equipment Matrix

C. Processes: Refer to the RDS for each area.

D. Primary Areas: None

E. Environmental Conditions: Refer to RDS sheet for each area.

1. Temperature: 68-74F +/- 2F 2. Humidity: 23-55%RH+/- 5%

# F. General Notes:

# G. RDS Notes:

- 1. Interior Finishes provided are the preferred option, final interior finishes shall be selected by the design team.
- 2. Refer to Security Narrative.
- 3. Heavy Duty stainless Shelves

Quantity: Function:    Interior Finishes   FLOORING   CEILINGS   PARTITIONS   WALL FINISH   WALL BASE   DOOR
FLOORING CEILINGS PARTITIONS WALL FINISH WALL BASE DOOR    Epoxy
FLOORING CEILINGS PARTITIONS WALL FINISH WALL BASE DOOR    Epoxy
□ Epoxy □ GWB □ GWB □ Epoxy □ Integral Cove □ Hollow Metal □ Sheet Flooring □ ACT □ Mold/Moisture □ Acrylic PNT □ Cove □ Wood □ Rubber Flooring □ Open □ Impact Resistant □ FRP □ Glass □ Sealed Concrete □ Unistrut □ CMU □ Height- 4" □ 48in □ Door Size 6' X 8' Note G.1 □ Lab Sink □ Mobile Casework □ Snorkel □ Note G.4, G.5 □ Hand Wash □ Fixed Casework □ Canopy □ Cup Sink □ Casework Material □ Other □ Deep Sink □ Counter Material □ Other □ Other □ Scullery Sink □ Note G.2.G.3 ■ STORAGE
Sheet Flooring
□ Rubber Flooring □ Open ☑ Impact Resistant □ FRP □ Glass   ☑ Sealed Concrete □ Unistrut ☑ CMU ☑ Height- 4" □ 48in   □ Other ☑ Other ☑ Other ☑ Door Size 6' X 8'   Note G.1 Note G.1 Note G.1 Note G.1 Note G.1   Note G.1 Note G.1 Note G.1 Note G.1   □ Fume Hood □ Lab Sink □ Mobile Casework   ☑ Snorkel Note G.4, G.5 □ Hand Wash □ Fixed Casework   □ Canopy □ Cup Sink □ Casework Material   □ Biological Safety Cabinet □ Deep Sink □ Counter Material   □ Other □ Other   HVAC ☑ Scullery Sink Note G.2.G.3    STORAGE
☑ Sealed Concrete Unistrut ☑ CMU ☑ Height- 4" ☐ 48in   ☐ Other ☑ Other ☑ Other ☑ Door Size 6' X 8'   Note G.1 Note G.1 Note G.1 Note G.1 Note G.1   DUCTED LAB EQUIPMENT ☐ Lab Sink ☐ Mobile Casework   ☑ Fume Hood ☐ Lab Sink ☐ Mobile Casework   ☑ Snorkel Note G.4, G.5 ☐ Hand Wash ☐ Fixed Casework Material   ☐ Canopy ☐ Casework Material ☐ Counter Material   ☐ Biological Safety Cabinet ☐ Deep Sink ☐ Counter Material   ☐ Other ☐ Other   HVAC ☑ Scullery Sink Note G.2.G.3
Other ☑ Other ☐ Other ☑ Other ☑ Other ☑ Door Size 6' X 8'   Note G.1 Note G.1 Note G.1 Note G.1 Note G.1   DUCTED LAB EQUIPMENT PLUMBING SERVICES CASEWORK   ☐ Fume Hood ☐ Lab Sink ☐ Mobile Casework   ☑ Snorkel Note G.4, G.5 ☐ Hand Wash ☐ Fixed Casework   ☐ Canopy ☐ Cup Sink ☐ Casework Material   ☐ Biological Safety Cabinet ☐ Deep Sink ☐ Counter Material   ☐ Other ☐ Other   HVAC ☑ Scullery Sink Note G.2.G.3   STORAGE
Note G.1 Note G.1 Note G.1 Note G.1 Note G.1   DUCTED LAB EQUIPMENT PLUMBING SERVICES CASEWORK   ☐ Fume Hood ☐ Lab Sink ☐ Mobile Casework   ☑ Snorkel Note G.4, G.5 ☐ Hand Wash ☐ Fixed Casework   ☐ Canopy ☐ Cup Sink ☐ Casework Material   ☐ Biological Safety Cabinet ☐ Deep Sink ☐ Counter Material   ☐ Other ☐ Floor Drain ☐ Other   HVAC ☑ Scullery Sink Note G.2.G.3    STORAGE
DUCTED LAB EQUIPMENT       PLUMBING SERVICES       CASEWORK         □ Fume Hood       □ Lab Sink       □ Mobile Casework         ☑ Snorkel       Note G.4, G.5       □ Hand Wash       □ Fixed Casework         □ Canopy       □ Cup Sink       □ Casework Material         □ Biological Safety Cabinet       □ Deep Sink       □ Counter Material         □ Other       □ Floor Drain       □ Other         HVAC       ☑ Scullery Sink       Note G.2.G.3       STORAGE
□ Fume Hood       □ Lab Sink       □ Mobile Casework         ☑ Snorkel       Note G.4, G.5       □ Hand Wash       □ Fixed Casework         □ Canopy       □ Cup Sink       □ Casework Material         □ Biological Safety Cabinet       □ Deep Sink       □ Counter Material         □ Other       □ Floor Drain       □ Other         HVAC       ☑ Scullery Sink       Note G.2.G.3       STORAGE
□ Fume Hood       □ Lab Sink       □ Mobile Casework         ☑ Snorkel       Note G.4, G.5       □ Hand Wash       □ Fixed Casework         □ Canopy       □ Cup Sink       □ Casework Material         □ Biological Safety Cabinet       □ Deep Sink       □ Counter Material         □ Other       □ Floor Drain       □ Other         HVAC       ☑ Scullery Sink       Note G.2.G.3       STORAGE
☑ Snorkel Note G.4, G.5 ☐ Hand Wash ☐ Fixed Casework   ☐ Canopy ☐ Cup Sink ☐ Casework Material   ☐ Biological Safety Cabinet ☐ Deep Sink ☐ Counter Material   ☐ Other ☐ Floor Drain ☐ Other   HVAC ☑ Scullery Sink Note G.2.G.3    STORAGE
□ Canopy       □ Cup Sink       □ Casework Material         □ Biological Safety Cabinet       □ Deep Sink       □ Counter Material         □ Other       □ Floor Drain       □ Other         HVAC       ☑ Scullery Sink       Note G.2.G.3       STORAGE
☐ Biological Safety Cabinet       ☐ Deep Sink       ☐ Counter Material         ☐ Other       ☐ Floor Drain       ☐ Other         HVAC       ☑ Scullery Sink       Note G.2.G.3       STORAGE
□ Other □ Floor Drain □ Other  HVAC □ Scullery Sink Note G.2.G.3 STORAGE
HVAC Scullery Sink Note G.2.G.3 STORAGE
✓ Pressurization Negative ☐ Floor Sink ☐ Tall Cabinets
☑ Air Change Per Hour 6 ACH Min. ☑ Other Sediment trap @ ☑ Tall Shelving
☑ Air Filtration (Supply and/or Exhaust) sink ☐ Peg Board
POWER AND DATA LABORATORY SERVICES Lockers
☐ Island Bench ☐ Nitrogen ☐ Mobile Cabinets
☑ Perimeter Bench       Duplex @ 24" O.C.       ☐ Compressed air       SPECIAL REQUIREMENTS
☐ Ceiling Mounted ☐ Floor Mounted ☐ Purified Water ☐ Vibration Control
☐ Emergency ☐ UPS ☐ Vacuum ☐ Temperature Note E.1
☑ 120V Computer ☑ Acoustics Note E.3
☑ 208V Equipment ☐ Other/Specialty ☑ Humidity Note E.2
✓ 480V Equipment HAZARDOUS MATERIAL STORAGE Sound Isolation
☑ Data ☑ Wi-Fi Router ☐ Comm. ☐ Acid/ Corrosive ☐ Flammable ☐ Radioactivity
☐ Other ☐ Toxic ☐ Radioactive ☑ Other
Other Note E.3
LIGHTING SAFETY EQUIP./FIRE PROTECTION VISUAL
Ambient Light Leve 60-80FC ☐ Safety Shower ☐ White Board
☐ Task Light ☐ Monitor ☐ Monitor
☐ Zoned Lighting ☐ Goggles ☐ Projection
☑ Dimmer ☐ PPE SECURITY
☑ Occ Sensor ☐ In-Use Signage ☐ CCTV
☐ Window Treatment ☐ Sprinkler Type ☐ Keyed Entry
□ Natural Light ☑ Fire Extinguisher ☑ Access Control

Program ID:2.94Room Name:Open LabDepartment:Quantity:1Area (SF):1210Occupancy:Aggregate

**NOTES** 

A. Adjacencies: Refer to concept diagrams

B. Equipment: Refer to the equipment Matrix.

2.94.1 LA Abrasion: LA Abrasion Machine ((2) 38"W x 40"D x 49"H)

2.94.2 Prep Area: Refer to the equipment Matrix.

2.94.3 Micro deval: Micro Deval ((6) 20"W x 13"D x 41"H)

2.94.4 wash/ Oven: Refer to the equipment Matrix.2.94.5 Soundness Test: Refer to the equipment Matrix.

### C. Processes:

LA Abrasions and Soundness Test

D. Primary Areas: within the Open lab

2.94.1 LA Abrasions

2.94.2 Prep Area

2.94.3 Micro Deval

2.94.4 Wash/ Oven

2.94.5 Soundness test

E. Environmental Conditions: Refer to RDS sheet for each area.

1. Temperature: 68-74F +/- 2F 2. Humidity: 23-55%RH+/- 5%

3. Dust collection System: Exhaust needed to collect the silica dust generated in the space.

### F. General Notes:

- a. Significant sila dust shall be generated in this space. Ensure that filter are provided at exhaust grilles. Refer to mechanical narrative for additional information.
- b. Provide Sediment trap at all sink and floor drains.

## G. RDS Notes:

- 1. Interior Finishes provided are the preferred option, final interior finishes shall be selected by the design team.
- 2. Provide a two well scullery sink for the LA Abrasions and soundness Test
- 3. Provide a three well scullery sink for open lab area.
- 4 Provide a snorkel in the wash down area
- 5. Provide snorkel in Soundness Test

Program ID:	2.94.5.a	Room Name:	Open Lab - Sou	ındness Test - M	oisture Room	Department:
Quantity:	1	Area (SF):	181.5	Occupancy:		Aggregate
Function:	Storing and c	ure concrete cyli	nder cores.	_		_
		IN	TERIOR FINIS	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOOR	
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	<b>☑</b> Open	✓ Impact Resistant	☐ FRP		☐ Glass	
☐ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	✓ Other	✓ Door Size	6' X 8'
Note G.2		Note G.5				
DUCTED LAB EQU	IPMENT		PLUMBING SERVI	CES	CASEWORK	
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety C	Cabinet		☐ Deep Sink		Counter Material	
Other			☑ Floor Drain	Note G.3	Other	
HVAC			✓ Scullery Sink		STORAGE	
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☑ Air Change Per Ho	our 6 Ach n	nin.	<b>✓</b> Other	Sediment trap	☑ Tall Shelving	Note G.6
☐ Air Filtration (Supp	oly and/or Exhaust)			@ sink	☐ Peg Board	
POWER AND DAT	A		LABORATORY SE	RVICES	☐ Lockers	
☐ Island Bench			☐ Nitrogen		☐ Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24'	' O.C.	☐ Compressed air		SPECIAL REQUIRE	MENTS
☐ Ceiling Mounted	☑ Floor Mounted	t	☐ Purified Water		☑ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		☑ Temperature	
☑ 120V	Computer				☐ Acoustics	
<b>☑</b> 208V			☐ Other/Specialty		☑ Humidity	
☐ 480V			HAZARDOUS MAT	ERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☑ Wi-Fi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	☐ Radioactivity	
☐ Other			☐ Toxic	☐ Radioactive	✓ Other	Note E.3
			Other			Note L.5
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Leve	60-70FC, 0	G.4	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		☐ Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
☐ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			In-Use Signage		□ сст∨	
☐ Window Treatmen	t		☑ Sprinkler Type	Note G.1	☐ Keyed Entry	
☐ Natural Light			☑ Fire Extinguisher		Access Control	

Program ID:2.94.5.aRoom Name:Open Lab - Soundness Test - Moisture RoomDepartment:Quantity:1Area (SF):181.5Occupancy:Aggregate

**NOTES** 

A. Adjacencies: Near the Freeze Thaw Room.

B. Equipment: Moist Room (96"W x 120"D x 96"H)

C. Tests: Core Samples used for Compression Test.

## E. Environmental Conditions:

Temperature: 74 +/-3F
 Humidity: 100% RH

### F. General Notes:

a. Provide a IP 65 Rated – Level 6(need for specific test ratings-indicates a precise level of protection against moisture ingress under specific test scenarios

# G. RDS Notes:

- 1. Misting systems water quality- type III distilled water.
- 2. Epoxy flooring: Basis of design manufacturer: Dudick Inc., Steri– Flor T w/Urethane top coat.
- 3. Floor sloped towards a trench drain.
- 4. Light Fixture must be gasketed and water proof.
- 5. Provide a bumper rail around room.
- 6. Provide heavy duty shelves along perimeter of room. Shelves used for storing samples.

Program ID:	2.95	Room Name:	Count Lab			Department:
Quantity:	1	Area (SF):	363	Occupancy:		Aggregate
Function:						
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOOR	
□ Ероху	☐ GWB	☐ GWB	□ Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	☐ ACT	☐ Mold/Moisture	☑ Acrylic PNT	☐ Cove	☐ Wood	
☐ Rubber Flooring	<b>☑</b> Open	✓ Impact Resistant	☐ FRP		Glass	
☑ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ 48in	
☑ Other	<b>☑</b> Other	✓ Other	☑ Other	<b>☑</b> Other	✓ Door Size	6' X 8'
Note G.1	Note G.1	Note G.1	Note G.1	Note G.1		
DUCTED LAB EQU	JIPMENT		PLUMBING SERV	ICES	CASEWORK	
✓ Fume Hood	Note E.2		☑ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			☐ Cup Sink		☑ Casework Material	Steel
☐ Biological Safety C	Cabinet		☐ Deep Sink		Counter Material	Stainless Stee
☐ Other			☐ Floor Drain		✓ Other	
HVAC			☑ Scullery Sink	Note G.2	STORAGE	
✓ Pressurization	Negative		☐ Floor Sink	-	☐ Tall Cabinets	
☑ Air Change Per Ho	o <u>ur</u> 6ACH min		<b>☑</b> Other	Sediment trap	✓ Tall Shelving	
☐ Air Filtration (Supp	-	)		@ sink	☑ Peg Board	
POWER AND DAT	Α		LABORATORY SE	RVICES	Lockers	
☐ Island Bench			□ Nitrogen	-	Mobile Cabinets	
✓ Perimeter Bench	Duplex @ 24" (	D.C.	☐ Compressed air		SPECIAL REQUIRE	MENTS
☐ Ceiling Mounted	✓ Floor Mounted	d	Purified Water		✓ Vibration Control	
☐ Emergency	<b>☑</b> UPS		☐ Vacuum		✓ Temperature	Note E.1
☑ 120V	Computer		<u></u>		Acoustics	
<b>☑</b> 208V			☐ Other/Specialty		☑ Humidity	Note E.2
✓ 480V			HAZARDOUS MAT		Sound Isolation	
☑ Data	☑ Wi-Fi Router	Comm.	Acid/ Corrosive	☐ Flammable	Radioactivity	Dust
Other			Toxic	☐ Radioactive	<b>☑</b> Other	collection,Note
			Other			E.3
LIGHTING			-	FIRE PROTECTION	VISU	AL
Ambient Light Leve			☑ Safety Shower	-	White Board	
☑ Task Light			Eyewash	-	Monitor	
✓ Zoned Lighting	-		Goggles		☐ Projection	
Dimmer			□ PPE	-	SECURITY	
☑ Occ Sensor			In-Use Signage		ССТУ	
☐ Window Treatmen	t		Sprinkler Type		Keyed Entry	
☐ Natural Light			✓ Fire Extinguisher		Access Control	

Program ID:2.95Room Name:Count LabDepartment:Quantity:1Area (SF):363Occupancy:Aggregate

**NOTES** 

A. Adjacencies: Refer to concept diagrams

B. Equipment: Refer to the equipment Matrix.

**2.95.1 AIMS**: AIMS II Machine ((2) 28"W x 28"D x 28"H)

**2.95.2 Deleterious Count**: Count Table ((2) 41"W x 30"D x 40"H), Work Table (30"W x 72"D x 30"H)

2.95.3 Heavy Media

2. Fume hood: Provide a new chemical Fume hood (70"W x 29"D x 95"H) in Deleterious Count.

Utilities. Electrical raceway at back of fume hood, No Natural Gas or specialty gases

# C. Processes:

## D. Primary Areas:

**2.95.1 AIMS** (Aggregate Image Measurement System).

2.95.2 Deleterious Count

2.95.3 Heavy Media

- E. Environmental Conditions: Refer to RDS sheet for each area.
- 1. Temperature: 68-74F +/- 2F
- 2. Humidity: 23-55%RH+/- 5%
- 3. Dust collection: Significant silica dust shall be generated in this space. Ensure that filter are provided at exhaust grilles.

### F. General Notes:

- A. Refer to mechanical narrative for additional information.
- B. Provide Sediment trap at all sink and floor drains.

# G. RDS Notes:

- 1. Interior Finishes provided are the preferred option, final interior finishes shall be selected by the design team.
- 2. Provide a two well scullery sink for each primary area.

Program ID:	3.11	Room Name:	Work Area			Department:
Quantity:	1	Area (SF):	200 SF	Occupants:	2	Coordinator of Tests
Function:						-
		I	NTERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	OR .
☐ Carpet	□GWB	<b></b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	✓ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEV	/ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		▼ Fixed Casework	
☐ Canopy	-		· Cup Sink		✓ Casework Materia	Plastic Laminate
☐ Biological Safety	 Cabinet		Deep Sink		✓ Counter Material	Plastic Laminate
Other			Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		. ☑ Other		☐ Tall Shelving	
☐ Air Filtration (Sup		 st)	. El other	ADA sink, Faucet	Peg Board	
POWER AND DATA	i -	,	LABORATOR	Y SERVICES	Lockers	
☐ Island Bench	1		□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			. Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	□ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		Vacuum		Temperature	
☑ 120V			•			
□ 208V			. Other/Specialty		Humidity	
□480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	JAL
Ambient Light Level	See Lighting B.0	O.D.	Safety Shower		☐ White Board	
☑ Task Light			Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			□PPE		SECUI	RITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatmen	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			□ Fire Extinguisher		☐ Access Contol	



Program ID:	3.11	Room Name: Work Area	Department:

# **NOTES**

- A. Adjacencies:1. Proxemity to mini-van parking.
- 2. Locate Coordinator of Tests (CT) work area (3.11) adjacent to CT standard office (3.12) and CT workstation (3.13).

B. <u>General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	3.12	Room Name:	Standard Offic	e		Department:
Quantity:	1	Area (SF):	120 SF	Occupants:	1	Coordinator of Tests
Function:	-	-				-
		]	NTERIOR FINI	SHES		
FLOORING	CEILINGS	<b>PARTITIONS</b>	WALL FINISH	WALL BASE	DOC	)R
☐ Carpet	□GWB	<b>√</b> GWB	Броху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	☑ ACT	☐ Mold/Moistu	ır🕢 Paint	<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resis	tant FRP		Glass	
✓ Sealed Concrete	□ Unistrut	□ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQUI	PMENT		PLUMBING	SERVICES	CASEW	/ORK
☐ Fume Hood			Lab Sink	· 	☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			· Cup Sink		Casework Materia	
☐ Biological Safety C	 Cabinet		Deep Sink		☐ Counter Material	
Other			Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per Ho	our		Other		☐ Tall Shelving	
☐ Air Filtration (Supp	oly and/or Exhaust)	)			Peg Board	
<b>POWER AND DATA</b>			LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	Floor Mounted	l	Purified Water		$\square$ Vibration Control	
☐ Emergency	UPS		Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	JAL
Ambient Light Level:	See Lighting B.	O.D.	Safety Shower		☐ White Board	
▼ Task Light			Eyewash		Monitor	
Zoned Lighting			Goggles		Projection	1
<b>☑</b> Dimmer			PPE		SECUI	RITY
Occ Sensor			. ☐ In-Use Signage		□сст∨	
Window Treatmen			Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID:	3.12	Room Name: Standard Office	Department:
riogiani id.	J.12	Room Name: Standard Office	Department.

# **NOTES**

A. Adjacencies:1. Locate Coordinator of Tests (CT) standard office (3.12) adjacent to CT workstation (3.13) and CT work area (3.11).

# B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	3.13	Room Name:	Small Workstation			Department:
Quantity:	1	Area (SF):	36 SF	Occupants:	1	Coordinator of Tests
Function:				-		-
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	DR
☐ Carpet	□GWB	<b></b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□ сми		✓ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☐ Door Size	
Polished Concrete						
<b>DUCTED LAB EQUIP</b>	PMENT		PLUMBING	SERVICES	CASEW	/ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			· Cup Sink		Casework Materia	
☐ Biological Safety Ca	abinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			Floor Sink		☐ Tall Cabinets	
Air Change Per Hou	u <u>r</u>		Other		☐ Tall Shelving	
☐ Air Filtration (Suppl	y and/or Exhaust)				Peg Board	
POWER AND DATA			LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			. Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	Floor Mounted		Purified Water		☐ Vibration Control	
☐ Emergency	UPS		. 🗌 Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	☐ Comm.	Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			_	IRE PROTECTION	VISU	JAL
Ambient Light Level:	See Lighting B.C	J.D.	Safety Shower  Eyewash		☐ White Board	
☑ Task Light			•		Monitor	
Zoned Lighting			Goggles  PPE		Projection SECUE	DITV
Dimmer			•		□ CCTV	XIII
Occ Sensor	At windows		. ☐ In-Use Signage . ☐ Sprinkler Type		•	
✓ Window Treatment ✓ Natural Light		2005	•		Keyed Entry	
LIVALUIAI LIGIIL	At perimeter spa	aces	Fire Extinguisher		☐ Access Contol	



Program ID:	3.13	Room Name: Small Workstation	Department:

# **NOTES**

 $\underline{\underline{A.}} \ \underline{\underline{Adjacencies:}} \\ 1. \ \underline{\underline{Locate}} \ \underline{Coordinator} \ of \ Tests \ (CT) \ workstation \ (3.13) \ adjacent \ to \ CT \ standard \ office \ (3.12) \ and \ CT \ work \ area \ (3.11).$ 

<u>B. General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	4.11	Room Name:	Standard Offic	ce		Department:
Quantity:	12	Area (SF):	1,440 SF	Occupants:	12	CBM Lab/
Function:				_		BP Lab
			ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	□GWB	<b> ✓</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	✓ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
☐Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Materia	l
☐ Biological Safety	 Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC	1		Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	,
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	t)			Peg Board	
POWER AND DATA	4		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQ	JIREMENTS
Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
✓ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
<b>✓</b> Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	: See Lighting B.	O.D.	☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		Monitor	
Zoned Lighting			Goggles		☐ Projection	
☑ Dimmer			☐ PPE		SECUR	RITY
Occ Sensor			☐ In-Use Signage		□сст∨	
☑ Window Treatmer	ntAt windows		☐ Sprinkler Type		☐ Keyed Entry	
☑ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		Access Contol	



Program ID:	4.11	Room Name: Standard Office	Department:
riogiani id.	7.11	Room Name: Standard Office	Department.

## **NOTES**

## A. Adjacencies:

### **Central Bureau of Materials (CBM)**

- 1. CBM standard lab office (4.11) distributions relative to CBM lab areas:
  - A. Metals & Miscellaneous Products Lab (2.21) Qty 1
  - B. Nuclear Lab (2.31) Qty 1
  - C. Concrete Lab (2.41) Qty 1
  - D. Cement Lab (2.51) Qty 1
  - E. Soils Lab (2.61) Qty 1
  - F. Instrument Chemistry Lab (2.71) Qty 1
  - G. Bituminous Chemistry Lab (2.72) Qty 1
  - H. Analytical Chemistry Lab (2.73) Qty 1
  - I. Hot Mix Asphalt Lab (2.81) Qty 1
  - J. Aggregate Lab (2.91) Qty 1
- 2. Locate CBM lab offices (4.11) adjacent to or in close proximity to their respective CBM labs.
- 3. Locate CBM lab offices (4.11) adjacent to corresponding CBM lab workstations (4.12).
- 4. Multiple CBM lab offices (4.11) may be grouped together provided they are in close proximity to thier respective CBM labs and adjacent to their respective CBM workstations (4.12).
- 5. Convenient access to filing (7.16) and shared workrooms (7.17).

# **Bureau of Programming (BP)**

- 1. Bureau of Programming, Traffic Instrumentation Lab office (4.11) distribution Qty 2.
- 2. Adjacency criteria similar to CBM criteria above for Bureau of Programming, Traffic Instrumentation Lab (2.11) and BP lab offices (4.11) and BP workstations (4.12).

### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	4.12	Room Name:	Small Worksta	ation		Department:
Quantity:	40	Area (SF):	1,440 SF	Occupants:	40	CBM Lab/
Function:				_		BP Lab
		IN	TERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b>√</b> GWB	<b>▼</b> Epoxy	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	✓ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		✓ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☐ Door Size	
Polished Concrete						
DUCTED LAB EQUI	PMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety (	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC	1		Scullery Sink		STORA	\GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	,
☐ Air Change Per Ho	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaust				Peg Board	
POWER AND DATA	N.		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
✓ 120V					Acoustics	
□ 208V			Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
✓ Data	☐ WiFi Router	☐Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			-	IRE PROTECTION	VISU	AL
Ambient Light Level	: See Lighting B.	O.D.	☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
☑ Window Treatmen			Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID: 4.12 Room Name: Small Workstation Department:

## **NOTES**

### A. Adjacencies:

### Central Bureau of Materials (CBM)

- 1. CBM workstation (4.12) distributions relative to CBM lab areas:
  - A. Metals & Miscellaneous Products Lab (2.21) Qty 8
  - B. Nuclear Lab (2.31) Qty 1
  - C. Concrete Lab (2.41) Qty 4
  - D. Cement Lab (2.51) Qty 2
  - E. Soils Lab (2.61) Qty 2
  - F. Instrument Chemistry Lab (2.71) Qty 2
  - G. Bituminous Chemistry Lab (2.72) Qty 4
  - H. Analytical Chemistry Lab (2.73) Qty 4
  - I. Hot Mix Asphalt Lab (2.81) Qty 5
  - J. Aggregate Lab (2.91) Qty 6
- 2. Locate CBM lab workstations (4.12) adjacent to or in close proximity to their respective CBM labs.
- 3. Locate CBM lab workstations (4.12) adjacent to corresponding CBM lab offices (4.11).
- 4. Multiple CBM lab workstations (4.12) may be grouped together provided they are in close proximity to thier respective CBM labs and adjacent to their respective CBM offices (4.11).
- 5. Convenient access to filing (7.16) and shared workrooms (7.17).

# **Bureau of Programming (BP)**

- 1. Bureau of Programming, Traffic Instrumentation Lab workstation (4.12) distribution Qty 2.
- 2. Adjacency criteria similar to CBM criteria above for Bureau of Programming, Traffic Instrumentation Lab (2.11) and BP lab offices (4.11) and BP workstations (4.12).

### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	4.13	Room Name:	Standard Offic	e (Field Operat	tions Chemist)	Department:
Quantity:	1	Area (SF):	120 SF	Occupants:	1	CBM Lab
Function:						
			TERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b> GWB</b>	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		☐ Vision Panel	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
✓ Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQUI	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
☐ Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Materia	
☐ Biological Safety (	 Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	
 ☐ Air Change Per Ho	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	t)			Peg Board	
POWER AND DATA	N.		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	'
☐ Emergency	□UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
□480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	: See Lighting B.	O.D.	☐ Safety Shower		☐ White Board	'
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
☑ Dimmer			☐ PPE		SECUR	ITY
Occ Sensor	_		☐ In-Use Signage	_	□сст∨	
☑ Window Treatmer	At windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Room Name: Standard Office (Field Operations Chemist) Department: **Program ID:** 4.13

# **NOTES**

# B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	4.14	Room Name:	Medium Huddl	e		Department:
Quantity:	1	Area (SF):	100 SF	Occupants:		CBM Lab
Function:				_		
			ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	☐GWB	<b></b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	✓ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
✓ Other	Other	Other	Other	Other	☐ Door Size	
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety	 Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	GE
☐ Pressurization	1	·	☐ Floor Sink		☐ Tall Cabinets	
 ☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
<b>√</b> 120V						
□208V			Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other		_	Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	O.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		☐ Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID:	4 14	Room Name: Medium Huddle	Department:
Programming.	4.14	Room Name. Medium nuudie	Department.

# **NOTES**

- A. Adjacencies:1. In central proximity to all CBM & BP lab office/workstation areas.
- 2. May be grouped with CBM lab offices break room (4.15).

B. <u>General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	4.15	1.15 Room Name: Large Break Room					
Quantity:	1	Area (SF):	378 SF	Occupants:		CBM Lab	
<b>Function:</b>		•		-		-	
		II	NTERIOR FINIS	SHES			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R	
☐ Carpet	□GWB	<b></b> GWB	<b>□</b> Ероху	☐ Integral Cove	☐ Hollow Metal		
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood		
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		✓ Vision Panel		
✓ Sealed Concrete	Unistrut	□ сми		☑ Height- 4"	☐ 48in		
<b>☑</b> Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"	
Polished Concrete							
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK	
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework		
Snorkel			☐ Hand Wash		✓ Fixed Casework		
☐ Canopy			Cup Sink		☑ Casework Materia	Plastic Laminate	
☐ Biological Safety	 Cabinet		☐ Deep Sink		✓ Counter Material	Solid Surface	
Other			□ Floor Drain		Other		
HVAC	1		☐ Scullery Sink		STORA	AGE	
☐ Pressurization	ı		☐ Floor Sink		☐ Tall Cabinets	1	
☐ Air Change Per H	our		✓ Other	ADA Ciple Fauget	☐ Tall Shelving		
☐ Air Filtration (Sup	pply and/or Exhaus	st)		ADA Sink, Faucet	Peg Board		
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers		
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets		
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS	
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control		
☐ Emergency	□UPS		□Vacuum		Temperature		
<b>☑</b> 120V					Acoustics		
□ 208V			☐ Other/Specialty		Humidity		
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation		
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity		
<b>☑</b> Other	Provisions for 2	vending machines	Toxic	Radiactive	Other		
	11001310113101	vending macinites	Other				
LIGHTING				FIRE PROTECTION	VISU	AL	
Ambient Light Level	See Lighting B.0	D.D.	Safety Shower		☐ White Board		
☐ Task Light			☐ Eyewash		Monitor		
☐ Zoned Lighting			Goggles		Projection	1	
Dimmer			☐ PPE		SECUR	ITY	
☑ Occ Sensor			☐ In-Use Signage		□сст∨		
✓ Window Treatme			Sprinkler Type		☐ Keyed Entry		
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher	•	☐ Access Contol		

**Room Name: Large Break Room** Program ID: 4.15 **Department:** 

# **NOTES**

# A. Adjacencies:

- 1. In central proximity to all CBM & BP lab office/workstation areas.
- 2. May be grouped with CBM lab offices huddle (4.14).

- <u>B. General Notes:</u>
  1. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.
- 2. Include provisions for Refrigerator/Freezer and Microwave.
- 3. Provide provisions for (2) Vending Machines.
- 4. Include Recycling and Trash collection provisions.

Program ID:	5.11	Room Name:	Executive Office	ce		Department:
Quantity:	1	Area (SF):	200 SF	Occupants:	1	CBM Tech
Function:						
			ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b></b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture		<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Materia	1
☐ Biological Safety	Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DAT	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		☐ Vacuum		Temperature	
✓ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	✓ Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			☐ Toxic☐ Other	Radiactive	Other	
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Leve	See Lighting B.	D.D.	☐ Safety Shower		☐ White Board	
✓ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
<b>☑</b> Dimmer			□PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID: 5.11 Room Name: Executive Office Department:

# **NOTES**

# A. Adjacencies:

- 1. Executive offices are occupied by bureau chiefs.
- 2. Locate CBM Tech & Admin executive office (5.11) near CBM Tech & Admin conference (5.16).
- 3. CBM Tech & Admin spaces may be grouped together or divided into pods designated by bureau chief and section chiefs.
- 3. Convenient access to filing (7.16) and shared workrooms (7.17).

## B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	5.12	Room Name:	Medium Office	:S		Department:
Quantity:	2	Area (SF):	300 SF	Occupants:	2	CBM Tech
Function:				-		-
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
✓ Carpet	□GWB	<b> ✓</b> GWB	Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		☐Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel		_	☐ Hand Wash		☐ Fixed Casework	
Canopy		_	Cup Sink		Casework Materia	1
☐ Biological Safety	Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	1
 ☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhau	ust)			Peg Board	
POWER AND DAT			LABORATOR	Y SERVICES	Lockers	,
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
<b>☑</b> Dimmer			PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	paces	☐ Fire Extinguisher		☐ Access Contol	



Program ID: 5.12 Room Name: Medium Offices Department:

# **NOTES**

# A. Adjacencies:

- 1. Medium offices are occupied by section chiefs.
- 2. Locate CBM Tech & Admin medium offices (5.12) near CBM Tech & Admin conference (5.16).
- 3. CBM Tech & Admin spaces may be grouped together or divided into pods designated by bureau chief and section chiefs.
- 4. Convenient access to filing (7.16) and shared workrooms (7.17).

## B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	5.13		Standard Offic		10	Department:
Quantity: Function:	13	Area (SF):	1,560 SF	Occupants:	13	CBM Tech
Turiction.		TN	ITERIOR FINIS	HFS		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b></b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	1
Sheet Flooring	<b>√</b> ACT	☐ Mold/Moisture	• •	☑ Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
Sealed Concrete	☐ Unistrut	 □ cmu		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood	1		Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Materia	
☐ Biological Safety	 Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		☐ Vacuum		Temperature	
✓ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
✓ Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			☐ Toxic ☐ Other	Radiactive	Other	
LIGHTING	1		SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
<b>☑</b> Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID:	5.13	Room Name: Standard Office	Department:
og. ab.	J J	Mooni Mainer Staridard Office	Department

# **NOTES**

- A. Adjacencies:1. CBM Tech & Admin spaces may be grouped together or divided into pods designated by bureau chief and section chiefs.
- 2. Convenient access to filing (7.16) and shared workrooms (7.17).

B. <u>General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	5.14	Room Name:	Large Worksta	ation		Department:
Quantity:	12	Area (SF):		Occupants:	12	CBM Tech
Function:						
			ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	☑ Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☐ Door Size	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy	-		Cup Sink		Casework Material	
☐ Biological Safety	 Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhau	ust)			Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ted	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
☑ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	n <b>A</b> t windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter s	paces	☐ Fire Extinguisher		Access Contol	



Program ID:	5.14	Room Name: Large Workstation	Department:

# **NOTES**

- A. Adjacencies:1. CBM Tech & Admin spaces may be grouped together or divided into pods designated by bureau chief and section chiefs.
- 2. Convenient access to filing (7.16) and shared workrooms (7.17).

B. <u>General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	5.15	Room Name:	Small Worksta	ntion		Department:
Quantity:	7	Area (SF):	252 SF	Occupants:	7	CBM Tech
Function:						
		IN	ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b> ✓</b> GWB	Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
Sealed Concrete	☐ Unistrut	☐ CMU		✓ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☐ Door Size	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink	-	Casework Materia	-
☐ Biological Safety	Cabinet		Deep Sink	-	☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhau	ust)			Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ed	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□Vacuum		☐ Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other	1		
LIGHTING				IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	Safety Shower		☐ White Board	
☑ Task Light			Eyewash		Monitor	
Zoned Lighting			Goggles		☐ Projection	1
Dimmer			□ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme			Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter s	paces	☐ Fire Extinguisher		Access Contol	



Program ID:	5.15	Room Name: Small Workstation	Department:

# **NOTES**

### A. Adjacencies:

- 1. CBM Tech & Admin spaces may be grouped together or divided into pods designated by bureau chief and section chiefs.
- 2. Convenient access to filing (7.16) and shared workrooms (7.17).

### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	5.16	Room Name:	Medium Confe	rence		Department:
Quantity:	1	Area (SF):	273 SF	Occupants:		CBM Tech
Function:				_		
			ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b> GWB</b>	Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Materia	1
☐ Biological Safety	 Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
Air Filtration (Sup	oply and/or Exhaus	st)			☐ Peg Board	
POWER AND DAT	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
<b>☑</b> 120V					✓ Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
✓ Data	☐ WiFi Router	☐Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			☐ Toxic☐ Other	Radiactive	Other	
LIGHTING	1			IRE PROTECTION	VISU	Al
Ambient Light Level	I See Liahtina B.(	D.D.	Safety Shower	TRE PROTECTION	✓ White Board	AL
☐ Task Light			☐ Eyewash		✓ Monitor	
Zoned Lighting			☐Goggles		Projection	
☑ Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	1
✓ Window Treatme	nt windows		☐ Sprinkler Type		☐ Keyed Entry	
☑ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID: 5.16 Room Name: Medium Conference Department:

#### **NOTES**

#### A. Adjacencies:

1. Near CBM Tech & Admin executive (5.11) and medium (5.12) offices.

#### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.

C. Basic A/V Standards: (Verify/coordinate with Using Agency & DoIT for Conference Room Size & Configuration)

1. For conference rooms over 20' in either direction:

A/V rack: RFR series rack, 2028 (20 space), 27"W x 27"L x 41.9"H, Mid-Atlantic, mfr., ventilation

integral to rack. Quad 20amp dedicated circuit. (2)1.25" conduits with egress to accessible ceiling.

Navigation wall touch panel/wall plate (HDMI).

Data for network behind rack (multi-cable (2 dual cables). Assume dual monitor, 62" power/HDMI

Monitor size: Direct view LED, 98" largest depending on viewing distance.

1 HMDI @ each monitor

Power for monitors in recessed chief box preferred, 65" AFF to CL.

Ceiling microphones/speakers.

- 2. Include power at floor below table locations.
- 3. If second camera required, provide center wall power outlet near ceiling at minimum 84" AFF.



Program ID:	5.17	Room Name:	Medium Huddl	e		Department:
Quantity:	1	Area (SF):	100 SF	Occupants:		CBM Tech
Function:				_		
			ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	✓ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☐ Door Size	
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	\GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V						
□208V			Other/Specialty		Humidity	
□480V			HAZARDOUS MAT	TERIAL STORAGE	☑ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			□PPE		SECUR	ITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID:	5 17	Room Name: Medium Huddle	Department:
Piogrami ID.	J. 1	Room Name. Medium nuudie	Depai tillelit.

# **NOTES**

 $\underline{\text{A. }} \underline{\text{Adjacencies:}} \\ 1. \ \underline{\text{In central proxemity to CBM Tech \& Admin offices and workstations.}}$ 

<u>B. General Notes:</u>
1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	5.18	Room Name:	Medium Break	room		Department:
Quantity:	1	Area (SF):	255 SF	Occupants:		CBM Tech
Function:		•		_		•
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b>☑</b> GWB	<b>□</b> Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	✓ACT	☐ Mold/Moisture	✓ Paint	<b>√</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t 🗌 FRP		☐ Vision Panel	
☐ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
LVT						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink	-	☑ Casework Material	Plastic Laminate
☐ Biological Safety	 Cabinet		☐ Deep Sink		✓ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	AGE
☐ Pressurization	1	·	☐ Floor Sink		☐ Tall Cabinets	1
☐ Air Change Per H	our		☑ Other		☐ Tall Shelving	
☐ Air Filtration (Sup		st)	oune.	ADA Sink	☐ Peg Board	
POWER AND DATA			LABORATOR	RY SERVICES	Lockers	
☐ Island Bench	1	_	□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
<b></b> 120∨					Acoustics	
□208V			☐ Other/Specialty		Humidity	
□480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
☑ Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./	FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.C	D.D.	Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	n <b>A</b> t windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter spa	aces	☐ Fire Extinguisher	·	Access Contol	



Program ID:	5 1 2	Room Name: Medium Breakroom	Department:
Program ID:	<b>3.10</b>	Room Name: Medium Breakfoom	Departillent:

# **NOTES**

A. Adjacencies:1. Convenient to CBM Tech & Admin conference (5.16).

- B. General Notes:
  1. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.
  2. Include provisions for Refridgerator/Freezer and Microwave.
  3. Include Recycling and Trash collection provisions.



Program ID:	6.11	Room Name:	Executive Office	ces		Department:
Quantity:	1	Area (SF):	200 SF	Occupants:	1	BR
Function:						
			ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b></b> GWB	Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture		<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Materia	
☐ Biological Safety	Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	st)			Peg Board	
POWER AND DAT	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			☐ Toxic☐ Other	Radiactive	Other	
LIGHTING				IRE PROTECTION	VISU	AL
Ambient Light Leve	See Lighting B.	D.D.	☐ Safety Shower		✓ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
<b>☑</b> Dimmer			PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
☑ Window Treatme	nAT windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		✓ Access Contol	



Program ID:	6.11	Room Name: Executive Offices	Department:
		moon manner Exception of the con-	p

### **NOTES**

- A. Adjacencies:1. Executive offices are occupied by bureau chiefs.
- 2. Group Bureau of Research (BR) executive office (6.11) with the following executive support spaces:
  - A. (BR) Standard Office (6.13) Qty 1
  - B. (BR) Large Workstation (6.14) Qty 1
  - C. (BR) Medium Workstation (6.15) Qty 1
  - D. (BR) Small Conference (6.16)
- 3. Convenient access to (BR) break room (6.17), filing (7.16), and shared workrooms (7.17).

#### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	6.12	Room Name:	Medium Office	s		Department:
Quantity:	2	Area (SF):	300 SF	Occupants:	2	BR
Function:		•		-		-
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Materia	1
☐ Biological Safety	Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DAT	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□ Vacuum		Temperature	
✓ 120V					✓ Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			☐ Toxic☐ Other	Radiactive	Other	
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Leve	See Lighting B.	D.D.	☐ Safety Shower		✓ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
<b>☑</b> Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		☐ Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		✓ Access Contol	



Program ID: 6.12 Room Name: Medium Offices Department:

#### **NOTES**

#### A. Adjacencies:

- 1. Medium offices are occupied by section chiefs.
- 2. BR Section Chief Pod 1 Group 1 Bureau of Research (BR) medium office (6.12) with the following support spaces:
  - A. (BR) Standard Office (6.13) Qty 5
  - B. (BR) Large Workstation (6.14) Qty 3
- 3. BR Section Chief Pod 2 Group 1 Bureau of Research (BR) medium office (6.12) with the following support spaces:
  - A. (BR) Standard Office (6.13) Qty 5. 1 standard office adjacent to library stacks (6.18) to control access.
  - B. (BR) Medium Workstation (6.15) Qty 6
  - C. (BR) Library Stacks (6.18). Access to stacks through standard office. Comply with codes for emergency egress.
- 4. Convenient access to (BR) conference (6.16), (BR) break room (6.17), filing (7.16), and shared workrooms (7.17).
- 5. In close proximity to secure equipment storage (7.18).

#### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	6.13	Room Name:	Standard Offic	es		Department:
Quantity:	11	Area (SF):	1,320 SF	Occupants:	11	•
Function:						
			ITERIOR FINIS			
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b> GWB</b>	Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
			_		_	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood	1	_	Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR/	\GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	oply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
<b>☑</b> 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.(	D.D.	☐ Safety Shower		☐ White Board	
✓ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
<b>✓</b> Dimmer			□PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	n <b>A</b> t windows		☐ Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	aces	☐ Fire Extinguisher		✓ Access Contol	



Program ID: 6.13 Room Name: Standard Offices Department:

# **NOTES**

#### A. Adjacencies:

- 1. Group according to bureau chief and section chief RDS. See RDS (6.11) and (6.12).
- 2. 1 standard office (6.13) adjacent to library stacks (6.18) to control access.
- 3. Convenient access to (BR) conference (6.16), (BR) break room (6.17), filing (7.16), and shared workrooms (7.17).
- 4. In close proximity to secure equipment storage (7.18).

#### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	6.14	Room Name:	Large Worksta	ation		Department:
Quantity:	4	Area (SF):		Occupants:	4	BR
Function:				_		
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☐ Door Size	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		☐ Casework Material	
☐ Biological Safety	 Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	(GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exha	ust)			Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ted	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
☑ Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	<b>AL</b>
Ambient Light Level	See Lighting B	.O.D.	☐ Safety Shower		☐ White Board	
☑ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	n <b>{</b> t windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter s	paces	☐ Fire Extinguisher		Access Contol	



Program ID: 6.14 Room Name: Large Workstation Department:

# **NOTES**

#### A. Adjacencies:

- 1. Group according to bureau chief and section chief RDS. See RDS (6.11) and (6.12).
- 2. Convenient access to (BR) conference (6.16), (BR) break room (6.17), filing (7.16), and shared workrooms (7.17).
- 3. In close proximity to secure equipment storage (7.18).

# B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	6.15	Room Name:	Medium Works	station		Department:
Quantity:	7	Area (SF):	336 SF	Occupants:	7	BR
Function:				-		•
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t□ FRP		☐Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☐ Door Size	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	\GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	oply and/or Exha	ust)			Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ted	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				IRE PROTECTION	VISU	AL
Ambient Light Leve	See Lighting B	.O.D.	☐ Safety Shower		☐ White Board	
✓ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		☐ Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter s	paces	☐ Fire Extinguisher		Access Contol	



Program ID: 6.15 Room Name: Medium Workstation Department:

# **NOTES**

#### A. Adjacencies:

- 1. Group according to bureau chief and section chief RDS. See RDS (6.11) and (6.12).
- 2. Convenient access to (BR) conference (6.16), (BR) break room (6.17), filing (7.16), and shared workrooms (7.17).
- 3. In close proximity to secure equipment storage (7.18).

# B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.



Program ID:	6.16	Room Name:	Small Confere	nce		Department:
Quantity:	1	Area (SF):	165 SF	Occupants:		BR
Function:				_		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
✓ Carpet	□GWB	<b> ✓</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel		_	☐ Hand Wash		☐ Fixed Casework	
Canopy		_	Cup Sink	-	Casework Materia	1
☐ Biological Safety	Cabinet		☐ Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	1	·	☐ Floor Sink		☐ Tall Cabinets	
 ☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhau	ust)			Peg Board	
POWER AND DATA			LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					✓ Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	☐ Safety Shower		White Board	
☐ Task Light			☐ Eyewash		✓ Monitor	
Zoned Lighting			Goggles		☑ Projection	
☑ Dimmer			□PPE		SECUR	RITY
☑ Occ Sensor			☑ In-Use Signage		□сст∨	
✓ Window Treatme	n <del>(</del> At windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter sp	paces	☐ Fire Extinguisher		Access Contol	



Program ID: 6.16 **Room Name: Small Conference Department:** 

#### **NOTES**

#### A. Adjacencies:

1. Group according to bureau chief RDS. See RDS (6.11).

#### B. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.

C. Basic A/V Standards: (Verify/coordinate with Using Agency & DoIT for Conference Room Size & Configuration)

1. Assume CISCO All-In-One system, requiring:

Power for monitors in recessed chief box preferred, 65" AFF to CL.

Monitors: (75" single) (55" dual) Data is it routed to an IDF, back to switch.

Ceiling microphones/speakers.

2. System control:

Tuck Navigation panel at table location.

1.25" cable from table to wall. HDMI at table shares conduit.

(2)2 gang wall outlets at 48" for both HDMI and touch panel.

Network close to HDMI jack.

3. Include power at floor below table locations.



Program ID:	6.17	Room Name:	Medium Break	room		Department:
Quantity:	1	Area (SF):	255 SF	Occupants:		BR
Function:		•		_		-
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b>☑</b> GWB	<b>□</b> Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>√</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t□ FRP		☐Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
LVT						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink	-	☑ Casework Materia	Plastic Laminate
☐ Biological Safety	Cabinet		☐ Deep Sink		✓ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	'	·	☐ Floor Sink		☐ Tall Cabinets	1
☐ Air Change Per H	lour		☑ Other		☐ Tall Shelving	
☐ Air Filtration (Sup		st)		ADA Sink, Faucet	☐ Peg Board	
POWER AND DAT			LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	1
Dimmer			☐ PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
✓ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter spa	aces	☐ Fire Extinguisher		☐ Access Contol	



Program ID: 6.17 **Room Name: Medium Breakroom Department:** 

# **NOTES**

- B. General Notes:

  1. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.

  2. Include provisions for Refrigerator/Freezer and Microwave.
- 3. Include Recycling and Trash provisions.



Program ID:	6.18	Room Name:	Library Stacks	<b>;</b>		Department:
Quantity:	1	Area (SF):	800 SF	Occupants:		BR
Function:				_		_
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
✓ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	☑ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		✓ Vision Panel	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Materia	1
☐ Biological Safety	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		✓ Tall Shelving	Stacks
☐ Air Filtration (Sup	pply and/or Exhau	ust)			☐ Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQ	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ted	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
☑ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	RITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
☑ Window Treatme	nAt windows		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light	At perimeter s	paces	☑ Fire Extinguisher		✓ Access Contol	



Program ID: 6.18 Room Name: Library Stacks Department:

#### **NOTES**

### A, Adjacencies:

- 1. Offices and workstations for library staff accessed through secure library door.
- 2. Prefer access to library stacks through librarian's office if possible.

### B. Activities:

open

1. Need to accommodate space for:

3 browsing areas (either small (30-in. diameter round table and chair or individual work station

Microfilm viewing/printing area: 4 ft X 4 ft

Microfilm storage cabinets: 2 cabinets each with a footprint of 15 in. X 29 in. (need room in front to

drawers)

CD storage cabinet with footprint of 21 in. X 21 in. (need room in front to open drawers)

Area for displaying and reviewing historical/archival items that could possibly be locked (size could be

determined based on remaining available space.)

#### C. General Notes:

1. Reference Part I - Planning & Design Criteria + Part II - Basis of Design for additional requirements.

2. Current stacks include 1,953 linear feet of shelving. (Maximize new stacks for decreased program area in new library stack space. Rolling stacks possible option to optimize stack area.)

**Existing Shelving Segment Dimensions:** 

3-ft wide segments

Number of shelves in segment: Minimum of 6 shelves / Maximum of 7 shelves

Shelving dimensions: 14-in. H X 12-in. D - fixed height



Program ID:	7.11	Room Name:	<b>Medium Traini</b>	ng/Conference	Center	Department:
Quantity:	1	Area (SF):		Occupants:		Shared
Function:		•		-		•
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	☐GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t 🗌 FRP		✓ Vision Panel	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink		✓ Casework Materia	Plastic Laminate
☐ Biological Safety	Cabinet		Deep Sink		✓ Counter Material	Solid Surface
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	1
☐ Air Change Per H	our		<b>✓</b> Other	ADA Cink Favort	☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhaus	st)		ADA Sink, Faucet	☐ Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
Ceiling Mounted	☑ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
<b>√</b> 120V						Optimal sound
□208V			☐ Other/Specialty		Humidity	quality
□480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
<b>☑</b> Other		ied to computer or	Toxic	Radiactive	Other	
	Webex w/ ampl	e speakers Coord.	Other			
LIGHTING	11, 2011		SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower	1	✓ White Board	1
☐ Task Light			☐ Eyewash		✓ Monitor	
☐ Zoned Lighting			Goggles		✓ Projection	Conferencing
☑ Dimmer			PPE			Video System
			П. н. «:		SECUR	
✓ Occ Sensor	Motorine		☐ In-Use Signage		ССТУ	
✓ Window Treatmen	ntriotorized black	out	Sprinkler Type		☐ Keyed Entry	
✓ Natural Light			☐ Fire Extinguisher		Access Contol	



Program ID: 7.11 Room Name: Medium Training/Conference Center Department:

#### **NOTES**

#### A. Adjacencies:

- 1. Locate Training/Conference Room (7.11) adjacent to main lobby (8.11) and restrooms (8.13, 8.14).
- 2. Provide adequate transition space outside of training/conference room to accommodate users gathering before entering the space to avoid over-crowding the main lobby.
- 3. Organize conference center area to discourage/prevent public visitors from migrating into other areas of the building.

#### B. Activities:

20-30 OCCUPANTS W/BREAKOUT INTO SMALLER GROUPS CLASSES 20-30 SEMINARS. 20-30 TECH REVIEW PANEL MTGS 20-30

#### C. General Notes:

- 1. Acoustically treated for optimal sound quality.
- 2. AV system that ties into computer or Webex system. Multiple ceiling mounted speakers/mics so everyone can hear and be heard. Coordinate with DoIT.
- 3. Floor receptacles to accommodate multiple configurations for computer training sessions. Coordinate with DoIT.
- 4. Video conferencing system to host conference calls showing all participants in the room. Coordinate with DoIT.
- 5. Wi-Fi. Coordinate with DoIT.
- 6. Ability to connect other computers or tablets to projector/display.
- 7. Accommodate presentations that use software not readily available on standard issue IDOT computers. Coordinate with DoIT.
- 8. Provide casework and countertop for coffee, snacks/etc.
- 9. Include provisions for refrigerator/freezer, microwave.
- 10. Include hot/cold water dispenser.
- 11. Include room signage with vacancy indicator.
- 12. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.



Quantity:   Area (SF):   1,520 SF   Occupants:   Shared   Function:   INTERIOR FINISHES   FLOORING   CEILINGS   PARTITIONS   WALL FINISH   WALL BASE   OCOR	Program ID:	7.12	Room Name:	ame: Large Training/Conference Center			
FLOORING	•	1	Area (SF):	1,520 SF	Occupants:		Shared
Carpet			IN	ITERIOR FINIS	SHES		
Sheet Flooring	FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R
Rubber Flooring Open   Impact Resistant   FRP   Impact Resistant   GMU   Height- 4"   48in	✓ Carpet	□GWB	<b> ✓</b> GWB	Ероху	☐ Integral Cove	☐ Hollow Metal	
General Concrete   Unistrut   CMU   Other	☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>☑</b> Cove	✓Wood	
Other	☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		✓ Vision Panel	
DUCTED LAB EQUIPMENT    Fume Hood	Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
Fume Hood	Other	Other	Other	☑ Other	Other	☑ Door Size	3'-0" x 7'-0"
Fume Hood	DUCTED LAB FOLL	IDMENT		DILIMPTNO	SERVICES	CASEM	VOBK
Snorkel	_	IPMENT	1		SERVICES		OKK
Canopy						-	
Biological Safety Cabinet   Deep Sink   Q Counter Material   Solid Surface	_						
Other	<u> Сапору</u>			<u> Сир зіпк</u>		Casework Materia	Plastic Laminate
Scullery Sink	☐ Biological Safety	Cabinet		☐ Deep Sink		✓ Counter Material	Solid Surface
Pressurization	Other			☐ Floor Drain		Other	
Air Change Per Hour	HVAC			Scullery Sink		STOR	AGE
Air Filtration (Supply and/or Exhaust)	☐ Pressurization			☐ Floor Sink		Tall Cabinets	
Peg Baard   Peg Baard   LABORATORY SERVICES   Lockers   Lockers   Laboratory Services   Labora	☐ Air Change Per H	our		<b>☑</b> Other	ADA Sink Faucot	_ □ Tall Shelving	
□ Island Bench □ Nitrogen □ Mobile Cabinets   □ Perimeter Bench □ Compressed air SPECIAL REQUIREMENTS   □ Ceiling Mounted ☑ Floor Mounted Training Sessions □ Purified Water □ Vibration Control   □ Emergency □ UPS □ Vacuum □ Temperature □ Optimal sound quality   ☑ 120V □ Other/Specialty □ Humidity □ Othinal sound quality   ☑ 208V □ Other/Specialty □ HazarDous Material Storage ☑ Sound Isolation   ☑ Data ☑ Wiffi Router ☑ Comm. □ Acid/ Corrosive □ Flammable □ Radioactivity   ☑ Other ☑ Other ☐ Other    **Betty Equip./fire Protection Visual  **Arbient Light Level See Lighting B.O.D. ☐ Safety Shower ☑ White Board   ☐ Task Light ☐ Eyewash ☑ Monitor ☑ Other   ☑ Dimmer ☐ Goggles ☑ Projection Conferencing Video System   ☑ Dimmer ☐ PPE SECURITY   ☑ Occ Sensor ☐ In-Use Signage ☐ CCTV   ☑ Window Treatmen Motorized blackout ☐ Sprinkler Type ☐ Keyed Entry	☐ Air Filtration (Sup	pply and/or Exhau	ust)		ADA Silik, Taucet	☐ Peg Board	
Perimeter Bench	POWER AND DATA	A		LABORATO	RY SERVICES	Lockers	
Ceiling Mounted	☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Emergency	Perimeter Bench			☐ Compressed air		SPECIAL REQ	UIREMENTS
208V	☐ Ceiling Mounted	✓ Floor Mount	ed Training Sessions	☐ Purified Water		☐ Vibration Control	
208V	☐ Emergency	UPS		□Vacuum		Temperature	
208V	☑ 120V					✓ Acoustics	
☑ Data       ☑ WiFi Router       ☑ Comm.       ☐ Acid/ Corrosive       ☐ Flammable       ☐ Radioactivity         ☑ Other       Sound system tied to computer or Webex w/ ample speakers. Coord w/DoIT.       ☐ Toxic       ☐ Radiactive       ☐ Other         LIGHTING       SAFETY EQUIP./FIRE PROTECTION       VISUAL         Ambient Light Level See Lighting B.O.D.       ☐ Safety Shower       ☑ White Board         ☐ Task Light       ☐ Eyewash       ☑ Monitor       ☑ Other         ☑ Zoned Lighting       ☐ Goggles       ☑ Projection       Conferencing Video System         ☑ Dimmer       ☐ PPE       SECURITY         ☑ Occ Sensor       ☐ In-Use Signage       ☐ CCTV         ☑ Window Treatmen Motorized blackout       ☐ Sprinkler Type       ☐ Keyed Entry	□208V			☐ Other/Specialty		Humidity	quality
Sound system tied to computer or Webex w/ ample speakers. Coord w/DoIT.    Coordinate   Coordin	□480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
Webex w/ ample speakers. Coord w/DoIT.    Content	<b>☑</b> Data	☑ WiFi Router	☑ Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
SAFETY EQUIP./FIRE PROTECTION VISUAL  Ambient Light Level See Lighting B.O.D. Safety Shower White Board  Task Light See Lighting See Lighting B.O.D. Safety Shower White Board  Sometiment Security See Lighting See See See See See See See See See Se	<b>☑</b> Other				Radiactive	Other	
Ambient Light Level See Lighting B.O.D.  Safety Shower  Eyewash  Monitor  Other  Conferencing Video System  PPE  SECURITY  Occ Sensor  In-Use Signage  White Board  Other  Conferencing Video System  SECURITY		w/DoIT.					
□ Task Light □ Eyewash ☑ Monitor ☑ Other   □ Zoned Lighting □ Goggles ☑ Projection Conferencing Video System   ☑ Dimmer □ PPE SECURITY   ☑ Occ Sensor □ In-Use Signage □ CCTV   ☑ Window Treatmen Motorized blackout □ Sprinkler Type □ Keyed Entry					FIRE PROTECTION		AL
Zoned Lighting Goggles Projection Conferencing Video System   ✓ Dimmer PPE   SECURITY   ✓ Occ Sensor In-Use Signage CCTV   ✓ Window Treatmen Motorized blackout Sprinkler Type Keyed Entry	_	See Lighting B.	.O.D.	-		- —	<del>-</del>
✓ Dimmer PPE Video System   SECURITY   ✓ Occ Sensor In-Use Signage CCTV   ✓ Window Treatmen Motorized blackout Sprinkler Type Keyed Entry	_			•			-
SECURITY  Occ Sensor						Projection	_
☑ Occ Sensor       ☐ In-Use Signage       ☐ CCTV         ☑ Window Treatmen Motorized blackout       ☐ Sprinkler Type       ☐ Keyed Entry	<b>☑</b> Dimmer			☐ PPE		SECUE	
✓ Window Treatmen Motorized blackout	[] O S			□In-Hee Signage		_	X-1-1
		Motorized black	kout			_	
	✓ Window Treatmen  ✓ Natural Light	TIL TOTOTIZED DIACI		Fire Extinguisher		Access Contol	



Program ID: 7.12 Room Name: Large Training/Conference Center Department:

#### **NOTES**

#### A. Adjacencies:

- 1. Locate Training/Conference Room (7.12) adjacent to main lobby (8.11) and restrooms (8.13, 8.14).
- 2. Provide adequate transition space outside of training/conference room to accommodate users gathering before entering the space to avoid over-crowding the main lobby.
- 3. Organize conference center area to discourage/prevent public visitors from migrating into other areas of the building.

#### B. Activities:

50 OCCUPANTS W/BREAKOUT INTO SMALLER GROUPS. LARGE TRAINING DIVISIBLE INTO 2 SPACES. TECH WORKGROUP MTGS UP TO 50. CLASSROOM/TABLES CLASSES 20-30. SEMINARS. 20-30 TECH REVIEW PANEL MTGS 20-30

#### C. General Notes:

- 1. Acoustically treated for optimal sound quality.
- 2. AV system that ties into computer or Webex system. Multiple ceiling mounted speakers/mics so everyone can hear and be heard. Coordinate with DoIT.
- 3. Floor receptacles to accommodate multiple configurations for computer training sessions. Coordinate with DoIT.
- 4. Video conferencing system to host conference calls showing all participants in the room. Coordinate with DoIT.
- 5. Wi-Fi. Coordinate with DoIT.
- 6. Ability to connect other computers or tablets to projector/display. Coordinate with DoIT.
- 7. Accommodate presentations that use software not readily available on standard issue IDOT computers. Coordinate with DoIT.
- Folding partition.
- 9. Provide casework and countertop for coffee, snacks/etc.
- 10. Include provisions for refrigerator/freezer, microwave.
- 11. Include hot/cold water dispenser.
- 12. Include room signage with vacancy indicator.
- 13. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.



Program ID:	7.13	Room Name:	Shipping + Re	ceiving		Department:
Quantity:	1	Area (SF):	1,210 SF	Occupants:		Shared
Function:		•		-		
			ITERIOR FINIS	_		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	☐GWB	□GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	✓ Paint	Cove	□Wood	
☐ Rubber Flooring	<b>☑</b> Open	☐ Impact Resistant	FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	✓ CMU		☐ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	<b>☑</b> Other	☐ Door Size	
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		▼ Fixed Casework	
Canopy			Cup Sink		✓ Casework Material	Plastic Laminate
☐ Biological Safety	 Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	GE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup					Peg Board	
POWER AND DATA	<u> </u>		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench	1		□Nitrogen	1	☐ Mobile Cabinets	
☐ Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		✓ Vibration Control	
☐ Emergency			□Vacuum		Temperature	
120V		_			Acoustics	
 □208V			Other/Specialty		Humidity	
□480V			HAZARDOUS MAT	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
Zoned Lighting			Goggles		Projection	
Dimmer			□PPE		SECUR	ITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			Fire Extinguisher		✓ Access Contol	



Program ID: 7.13 Room Name: Shipping + Receiving Department:

#### **NOTES**

#### A. Adjacencies:

- 1. Near Sample Storage (7.14) and Hazardous Material Storage (7.15).
- 2. Interconnection to Materials Distribution Paths (8.11.1).

#### B. General Notes:

- 1. Receiving and processing area for materials and sample deliveries to and from labs.
- 2. IDOT receives and processes on average of 9,000 samples of varying types on a yearly basis. Sample forms and containers include large and small commercial products, bags, pallets, and 55 gallon drums.
- 3. Also the receiving and processing area for mail deliveries to the labs.
- 4. A small area with work surface is required for mail sorting and delivery.
- 5. Storage area for forklift.
- 6. Egress door to exterior.
- 7. Coiling or overhead door(s) for materials/samples deliveries.
- 8. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.



Program ID:	7.14	Room Name:	Sample Storag	je		Department:
Quantity:	1	Area (SF):	1,452 SF	Occupants:		Shared
Function:		•		-		
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOOF	2
☐ Carpet	<b> ✓</b> GWB	□GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		☐Glass	
✓ Sealed Concrete	☐ Unistrut	☑ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☐ Door Size	
Polished Concrete						
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEWO	PRK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink	-	Casework Material	
☐ Biological Safety	 Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	REMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☐ 120V					Acoustics	
□ 208V			Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
☐ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				IRE PROTECTION	VISUA	L
Ambient Light Level	See Lighiting B.	O.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECURI	TY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		Access Contol	



Program ID:	7.14	Room Name: Sample Storage	Department:
riogiani ib.	/	Room Name: Sample Storage	Department.

### **NOTES**

- <u>A. Adjacencies:</u>
  1. Near Shipping + Receiving (7.13).
- 2. Interconnection to Materials Distribution Paths (8.11.1).

# B. General Notes:

- 1. Access for forklift/handlift.
- 2. Accommodate storage of materials/samples including pallets, racks, bags, samples, 55 gallon drums, small and large commercial products. Coordinate quantities with Using Agency.
- 3. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.



Program ID:	7.15	Room Name:	Hazardous Ma	terial Storage		Department:
Quantity:	1	Area (SF):		Occupants:		Shared
<b>Function:</b>				-		-
INTERIOR FINISHES						
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	□GWB	□GWB	<b>□</b> Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	<b></b> ✓ ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t 🗌 FRP		Glass	
☑ Sealed Concrete	☐ Unistrut	☑ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☑ Door Size	See Note B4
Polished Concrete						
DUCTED LAB EQU	IPMENT		Lab Sink	SERVICES	CASEW  ☐ Mobile Casework	ORK
☐ Fume Hood			<u></u>		· <u> </u>	
			Hand Wash		Fixed Casework	
Canopy			Cup Sink		Casework Materia	
☐ Biological Safety	Cabinet		☐ Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		✓ Tall Shelving	
☐ Air Filtration (Sup	oply and/or Exhau	st)			☐ Peg Board	
POWER AND DAT	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		□Vacuum		☐ Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☑ Acid/ Corrosive	✓ Flammable	Radioactivity	
Other			<b>☑</b> Toxic	Radiactive	Other	
			Other			
LIGHTING			_	FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.	O.D.	Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	,
Dimmer			☐ PPE		SECUE	RITY
☑ Occ Sensor		,	☐ In-Use Signage		□сст∨	
☐ Window Treatme	n <u>t</u>		☐ Sprinkler Type		☐ Keyed Entry	
□ Natural Light			Fire Extinguisher		MAccess Contol	



Program ID: 7.15 Room Name: Hazardous Material Storage Department:

#### **NOTES**

#### A. Adjacencies:

1. Convenient location for shared access.

#### B. General Notes:

- 1. Provide required exhaust ventilation.
- 2. Walls extend from deck to deck or provide hard lid ceiling to encapsulate fumes for exhaust.
- 3. Stored Hazardous Material Types: (See Waste Materials Descriptions under Part I Applicable Codes)
  a. Majority are (hazardous/non-hazardous) samples in enclosed containers like a friction top can or capped plastic
  - Average Quantity: 500, pint gallon size metal cans or plastic bottles.
    - Average Quantity: 10, 5 gallon containers.
  - b. Open containers include 55 gallon drums.
    - Average Quantity: 5
    - Drums are separated into non-hazardous materials and hazardous materials.
    - The non-hazardous drum is primarily a mixture of water based materials.
    - The hazardous drum is labeled as waste flammable liquids.
    - The EPA hazardous waste codes are F002 for spent halogenated solvents, F003 for spent non-

halogenated solvents and D001 for ignitable waste.

- The waste drums are stored until they are picked up by the statewide hazardous waste contractor.
- A safety drum vent is screwed into the bung hole on the top of the hazardous waste drum while it is

stored.

bottle.

- The safety vent prevents the drum from pressurizing if stored in a hot environment.
- If the pressure reaches a certain level in the headspace of the drum, the valve in the vent will open the built up pressure.

and release

- Most vapors in the room would come from a pressure release from these vents.
- 4. Reference Part I Planning & Design Criteria + Part II Basis of Design for additional requirements.
- 5. Verify required door dimensions with materials handling requirements.



Program ID:	7.16	Room Name:		0		Department:
Quantity: Function:	1	Area (SF):	1,000 SF	Occupants:		Snared
Tunction.		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b> ✓</b> GWB	☐ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b> √</b> ACT	☐ Mold/Moisture	• •	☑ Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	□ Unistrut	—   . □ сми		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
			_		_	_
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety	Cabinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		<b>☑</b> Other	Mailboxes
HVAC			Scullery Sink		STORA	\GE
Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V	-		☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			☐ Toxic ☐ Other	Radiactive	Other	
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.C	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			PPE		SECUR	ITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	· 
☐ Window Treatmen	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		Access Contol	



Program ID: 7.16 **Room Name: Filing Department:** 

#### **NOTES**

#### A. General Notes:

- 1. One centralized location or separate rooms with adjacencies to areas of demand.
- 2. Provide built-in mailboxes for Central Bureau of Materials and Bureau of Programming labs mail distribution.
- 3. Existing filing capacity to be accommodated:

Existing overall file space areas and cabinet counts:

Main Building:

Vertical Files: 83 cabinets - Area allotment: 520 SF Lateral Files: 7 cabinets - Area allotment: 42 SF

Rolling Files: 14 Units 8' Long - File area: 176 SF (rolling files not used in new

building)

Total Approx. SF Main Building: 750 SF

Annex Building:

Vertical Files: 17 cabinets - Area allotment: 107 SF Lateral Files: 1 cabinet – Area allotment: 6 SF Total Approx. SF Annex: 120 SF



Program ID: Quantity:	7.17 3	Room Name: Area (SF):		Occupants:		Department: Shared
Function:				•		•
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
✓ Carpet	□GWB	<b></b> GWB	Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		Mobile Casework	
Snorkel			Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink		✓ Casework Material	Plastic Laminate
☐ Biological Safety	Cabinet		Deep Sink		✓ Counter Material	Plastic Laminate
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	\GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	UPS		□Vacuum		☐ Temperature	
<b></b> 120∨					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
□480V			HAZARDOUS MAT	TERIAL STORAGE	✓ Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			☐ Toxic☐ Other	Radiactive	Other	
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	ITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		Access Contol	





Program ID:	7.18	Room Name:	Secure Equipm	nent Storage		Department:
Quantity:	1	Area (SF):	121 SF	Occupants:		Shared
Function:				-		-
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	<b></b> ✓ GWB	<b></b> GWB	☐ Epoxy	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		▼ Fixed Casework	
☐ Canopy			Cup Sink		✓ Casework Materia	Plastic Laminate
☐ Biological Safety	 Cabinet		☐ Deep Sink		✓ Counter Material	Plastic Laminate
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	AGE
☐ Pressurization	1		☐ Floor Sink		✓ Tall Cabinets	1
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup		 st)			Peg Board	
POWER AND DATA	i		LABORATOR	Y SERVICES	Lockers	-
☐ Island Bench	1	_	□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		☐ Temperature	
<b>√</b> 120V					Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	
Dimmer			□PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatmen	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		✓ Access Contol	



Program ID:	7 18	Room Name: Secure Equipment Storage	Department:
riogiaili 10.	7.10	Room Name. Secure Equipment Storage	Department.

- A. Adjacencies:1. Adjacent to or near Bureau of Research.2. Primarily used for small equipment and hardware storage.



Program ID:	7.19	Room Name:	Traffic Instrun	nent Truck Sto	age	Department:
Quantity:	1	Area (SF):	605 SF	Occupants:		BP TI Lab
Function:		•		•		
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	☐GWB	□GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	☐ Paint	Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☐ Height- 4"	☐ 48in	
Other	Other	Other	Other	Other	☐ Door Size	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			Hand Wash		☐ Fixed Casework	
Canopy			Cup Sink		Casework Material	
☐ Biological Safety	 Cabinet		Deep Sink		☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	GE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		$\square$ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☐ 120V					Acoustics	
□ 208V			Other/Specialty		Humidity	
□480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
☐ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
<b>✓</b> Other	Power for engine	e block warmer	☐ Toxic ☐ Other	Radiactive	Other	
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	<b>AL</b>
Ambient Light Level			☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐Zoned Lighting			Goggles		Projection	
Dimmer			PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		Access Contol	



Program ID: 7.19 **Room Name: Traffic Instrument Truck Storage Department:** 

- $\underline{\frac{A.}{1.}} \, \underline{\frac{\text{General Notes:}}{\text{Power requirement for deisel engine block warmer.}}$
- 2. Secured area for truck storage and access.
- 3. Not necessarily enclosed or covered storage.



Program ID:	8.11	Room Name:	Main Entry Lol	oby		Department:
Quantity:	1	Area (SF):		Occupants:		C+S
Function:		•		•		•
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b> GWB</b>	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t ☐ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☐ Door Size	
Polished Concrete	,					
DUCTED LAB EQU	IPMENT			SERVICES	CASEW	ORK
Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			Hand Wash		✓ Fixed Casework	
Canopy			Cup Sink		✓ Casework Material	Plastic Laminate
☐ Biological Safety	 Cabinet		☐ Deep Sink		✓ Counter Material	Solid Surface
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STORA	AGE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	1
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
✓ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.0	D.D.	☐ Safety Shower		☐ White Board	
✓ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		☐ Projection	1
Dimmer			□ PPE -		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
Window Treatme	n <u>t</u>		Sprinkler Type		☐ Keyed Entry	
✓ Natural Light			☐ Fire Extinguisher		✓ Access Contol	



Program ID:	8.11	Room Name: Main Entry	/ Lobby	Department:
riogiani id.	0.11	Room Name. Plant Littly	LODDY	Department.



Program ID:	8.11.1	Room Name:	Materials Dist	ribution Path		Department:
Quantity:		Area (SF):		Occupants:		C+S
Function:				-		
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	□GWB	<b></b> GWB	<b>□</b> Ероху	☐ Integral Cove	✓ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	✓ Paint	<b>✓</b> Cove	□Wood	
☐ Rubber Flooring	Open	☑ Impact Resistant	FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☑ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	☑ Door Size	
Polished Concrete	TBD				See note 4	
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		Fixed Casework	
Canopy			☐ Cup Sink		- ☐ Casework Material	
☐ Biological Safety	Cabinet		☐ Deep Sink		_ ☐ Counter Material	
Other			☐ Floor Drain		Other	
HVAC			☐ Scullery Sink		STORA	GE
☐ Pressurization	1		☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		_ ☐ Tall Shelving	
☐ Air Filtration (Sup			_ ounci		☐ Peg Board	
POWER AND DATA	7 -		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench	1		□Nitrogen	1	■ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	IREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		- □Temperature	
☑ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	Sound Isolation	
☐ Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	☐Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISUA	<b>AL</b>
Ambient Light Level	See Lighting BC	DD	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	ITY
Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		Keyed Entry	
□ Natural Light			□ Fire Extinguisher		- ΠΔccess Contol	



Program ID: 8.11.1 Room Name: Materials Distribution Path Department:

### **NOTES**

#### A. General Notes:

- 1. Facilitates distribution of incoming/outgoing materials to and from lab areas between the shipping/receiving/loading dock and shared materials storage areas.
- 2. Separate from other building circulation dedicated to office/administration functions.
- 3. Minimum width  $\pm$ 10'-11'. Verify with materials distribution equipment manuvering and clearance requirements.
- 4. Verify opening requirements with materials distribution crteria.
- 5. Provide impact impact resistant corner protection.



Program ID:	8.12	Room Name:	Lactation & W	ellness Room		Department:
Quantity:	1	Area (SF):		Occupants:		C+S
<b>Function:</b>				_		-
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	□GWB	<b> ✓</b> GWB	<b>□</b> Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	<b>☑</b> ACT	✓ Mold/Moisture	✓ Paint	<b>☑</b> Cove	<b>✓</b> Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
Sealed Concrete	☐ Unistrut	□ СМИ		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	✓ Door Size	3'-0" x 7'-0"
LVT						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		✓ Fixed Casework	
☐ Canopy			Cup Sink		- ☑ Casework Materia	Plastic Laminate
☐ Biological Safety	Cahinet		☐ Deep Sink		- ☑ Counter Material	Solid Surface
☐ Other	Cabinet		☐ Floor Drain		Other	John Juriace
HVAC			Scullery Sink		STORA	AGE
			☐ Floor Sink		☐ Tall Cabinets	102
Pressurization	lour		<del></del>			
☐ Air Change Per H☐ Air Filtration (Sup		ct)	<b>☑</b> Other	ADA Sink, Faucet	☐ Tall Shelving ☐ Peg Board	
POWER AND DAT	. ·	st)	LABORATOR	RY SERVICES	Lockers	
☐ Island Bench	1	1	□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	 ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
□ 480V				TERIAL STORAGE	✓ Sound Isolation	
☑ Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	,	☐ Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			SAFETY EQUIP./I	FIRE PROTECTION	VISU	AL
Ambient Light Leve	See Lighting B.	O.D.	Safety Shower	,	☐ White Board	1
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		- □ Projection	
Dimmer			☐ PPE		SECUR	RITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
□ Natural Light			□ Fire Eytinguisher		-	



Program ID: 8.12 **Room Name: Lactation & Wellness Room Department:** 

- A. General Notes:
  1. Provide outlet near seating area for lactation pump.
  2. Include provisions for small refirgerator and microwave.
  3. Include baby changing station.



Program ID:	8.13	Room Name:	Men's Restroo	om		Department:
Quantity:		Area (SF):		Occupants:		C+S
Function:		_		_		-
		II.	NTERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	<b></b> GWB	<b> ✓</b> GWB	<b>□</b> Ероху	✓ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	✓ Mold/Moisture	✓ Paint	Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	<b>☑</b> Other	Other	☑ Door Size	3'-0" x 7'-0"
Epoxy			Ceramic Tile	Epoxy		
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			Hand Wash		Fixed Casework	
Canopy			Cup Sink		Casework Materia	Plastic Laminate
☐ Biological Safety	Cahinet		□Deep Sink		☑Counter Material	Solid Surface
☐ Other	Cubinet		Floor Drain		Other	John Sarrace
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization		1	☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H			. ☑ Other	ADA Sinks, WC's,	Tall Shelving	
☐ Air Filtration (Sup			. Woulei	Urinals, Faucets	Peg Board	
POWER AND DATA	<u> </u>	,	LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen	1	☐ Mobile Cabinets	
Perimeter Bench			. Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ed	□Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		Vacuum		Temperature	
☑ 120V			•		Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	
☐ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			_	FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	Safety Shower		☐ White Board	
☐ Task Light			Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			PPE		SECUR	ITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			□ Fire Extinguisher	·	☐Access Contol	



Program ID:	8.13	Room Name: Men's Restroom	Department:
riogiaili 10.	0. IJ	Room Name. Men 5 Restroom	Department.



Program ID:	8.14	Room Name:	Women's Rest	troom		Department:
Quantity:		Area (SF):		Occupants:		C+S
Function:		_		_		-
		II.	NTERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	<b></b> GWB	<b> ✓</b> GWB	<b>□</b> Ероху	✓ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□аст	✓ Mold/Moisture	☐ Paint	Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	☐ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	<b>☑</b> Other	Other	☑ Door Size	3'-0" x 7'-0"
Epoxy			Ceramic Tile	Epoxy		
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			□ Hand Wash			
Canopy			Cup Sink		Casework Materia	Plastic Laminate
☐ Biological Safety	Cahinet		□Deep Sink		☑ Counter Material	Solid Surface
Other	Cabinet		.  Floor Drain		Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization	1	'	☐ Floor Sink		. ☐ Tall Cabinets	,
☐ Air Change Per H	lour		. ☑ Other	ADA Sinks, WC's,	. □ Tall Shelving	
☐ Air Filtration (Sup		 ust)	. Gother	Faucets	☐ Peg Board	
POWER AND DATA	<u> </u>		LABORATO	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQU	JIREMENTS
☐ Ceiling Mounted	☐ Floor Mount	ed	☐ Purified Water		Ŭ Vibration Control	
☐ Emergency	□UPS		Vacuum		Temperature	
☑ 120V			•		Acoustics	
□208V			Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☑ Sound Isolation	
☐ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING			_	FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B	.O.D.	Safety Shower		☐ White Board	
☐ Task Light			Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			□ PPE		SECUR	RITY
✓ Occ Sensor			In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		Keyed Entry	
☐ Natural Light			Fire Extinguisher	r	□ Access Contol	



Program ID:	Q 1/L	Room Name: Women's Restroom	Department:
riogialli ID:	0.14	Room Name: Women's Restroom	Department:

# NOTES



Program ID:	8.15	Room Name: All Genders Restrooms			Department:	
Quantity:		Area (SF):		Occupants:		C+S
Function:		_		-		-
		II.	NTERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOO	R
☐ Carpet	✓GWB	<b> ✓</b> GWB	<b>□</b> Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	✓ Mold/Moisture	☐ Paint	<b>✓</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	<b>☑</b> Other	Other	☑ Door Size	3'-0" x 7'-0"
Epoxy			Ceramic Tile	Epoxy		
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			Hand Wash		☑ Fixed Casework	
Canopy			· Cup Sink	-	Casework Materia	Plastic Laminate
Dialogical Cafety	Cabinat		Doon Sink			Solid Surface
☐ Biological Safety	Cabinet		Deep Sink  Floor Drain		Counter Material	Solid Surface
☐ Other HVAC			. <del></del>		Other STOR	ACE.
	'		Scullery Sink	-		AGE
Pressurization			Floor Sink		Tall Cabinets	
☐ Air Change Per H			Other	ADA Sink, WC, Faucet	☐ Tall Shelving	
POWER AND DATA	i -	ıst)	LARODATO	RY SERVICES	☐ Peg Board	
_	A.			KT SERVICES	Lockers	
☐ Island Bench			Nitrogen	-	☐ Mobile Cabinets  SPECIAL REQU	ITDEMENTS
Perimeter Bench			Compressed air	-	_	JIKEMENIS
Ceiling Mounted		ea 	Purified Water	-	☐ Vibration Control	
☐ Emergency	UPS		. Vacuum	-	Temperature	
☑ 120V					Acoustics	
□ 208V			Other/Specialty	TERIAL STORAGE	Humidity	
□ 480V				1	Sound Isolation	
Data	☐ WiFi Router	Comm.	Acid/ Corrosive		Radioactivity	
Other			☐ Toxic☐ Other	Radiactive	Other	
LIGHTING				FIRE PROTECTION	VISU	Al
Ambient Light Level	See Lighting B	O D	Safety Shower	FIRE PROTECTION	☐ White Board	AL
	See Lighting B.	.0.D.	Eyewash		•	
Task Light			. Goggles		☐ Monitor☐ Projection	
Zoned Lighting			. □ Goggles □ PPE		SECUR	TTV
☐ Dimmer			. □ FFE □ In-Use Signage		□ CCTV	·
Occ Sensor			Sprinkler Type		☐ Keyed Entry	
☐ Window Treatmen ☐ Natural Light	<u> </u>		. Sprinker Type . Sire Extinguisher		Access Contol	



Program ID:	8.15	Room Name: All Genders Restrooms	Department:
riogiani ib.	0. I J	Room Name. All deliders Restrooms	Department.

# NOTES



Program ID:	8.16	Room Name:	Mechanical Ro	om		Department:
Quantity:		Area (SF):		Occupants	•	C+S
Function:		-		-		_
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	)R
☐ Carpet	<b> ✓</b> GWB	<b> GWB</b>	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	✓ Mold/Moisture	✓ Paint	<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	t□ FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	<b>☑</b> CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	Other	✓ Door Size	3'-0" x 7'-0"
Polished Concrete						
DUCTED LAB EQU	IPMENT		PLUMBING	SERVICES	CASEW	ORK .
☐ Fume Hood			☐ Lab Sink		_ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		− □ Casework Materia	ıl
☐ Biological Safety	Cabinet		☐ Deep Sink		_ ☐ Counter Material	
Other			☐ Floor Drain		_ ☐ Other	
HVAC			☐ Scullery Sink		STOR	AGE
☐ Pressurization	1		☐ Floor Sink		Tall Cabinets	
☐ Air Change Per H	lour		Other		_ □ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhau	st)			Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen	<u></u>	☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
☐ 120V					Acoustics	
□208V			☐ Other/Specialty		Humidity	
☐480V			HAZARDOUS MA	TERIAL STORAGE	✓ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
<b>☑</b> Other	See Electrical a	nd IT/COMM	Toxic	Radiactive	Other	
	B.O.D.s		Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.	O.D.	☐ Safety Shower		_ White Board	
☐ Task Light			☐ Eyewash		_ Monitor	-
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUE	RITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		☐ Sprinkler Type		Keyed Entry	
☐ Natural Light	<u> </u>		☐ Fire Extinguisher		Access Contol	



Program ID:	8.16	Room Name: Mechanical Room	Department:
	J J		



Program ID:	8.17	Room Name:	<b>Electrical Roor</b>	n		Department:
Quantity:		Area (SF):		Occupants:		C+S
Function:						_
		IN	ITERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	<b>☑</b> GWB	<b>☑</b> GWB	□ Ероху	☐ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	✓ Paint	<b>☑</b> Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t 🗌 FRP		Glass	
✓ Sealed Concrete	☐ Unistrut	☑ CMU		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	☐ Other	Other	Other	☑ Door Size	3'-0" x 7'-0"
Polished Concrete						
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			☐ Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Materia	
☐ Biological Safety	Cabinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC	1		☐ Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	our		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	ply and/or Exhau	st)			☐ Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□ Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			☐ Compressed air		SPECIAL REQ	JIREMENTS
Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		□Vacuum		Temperature	
☐ 120V					Acoustics	
□208V			Other/Specialty		Humidity	
☐480V			HAZARDOUS MAT	TERIAL STORAGE	Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
<b>☑</b> Other	See Electrical B	0.0	Toxic	Radiactive	Other	
	See Liectrical B	.О.D.	Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.	O.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUR	RITY
✓ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatmen	nt		☐ Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		✓ Access Contol	



Program ID:	8.17	Room Name: Electrical Room	Department:

### **NOTES**

 $\underline{\underline{A.}} \ \underline{\underline{General}} \ \underline{\underline{Notes:}} \\ 1. \ \underline{\underline{Provide}} \ \underline{\underline{6"}} \ \underline{\underline{high}} \ \underline{concrete} \ \underline{house} \ \underline{keeping} \ \underline{pads} \ \underline{under} \ \underline{all} \ \underline{floor} \ \underline{mounted} \ \underline{equipment.}$ 



Program ID:	8.18	Room Name:	IDF/MDF Roor	ns		Department:
Quantity:		Area (SF):		Occupants:		C+S
Function:						_
		II	NTERIOR FINIS	HES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	<b></b> GWB	<b>☑</b> GWB	□ Ероху	✓ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	☐ Mold/Moisture	✓ Paint	Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistan	t□ FRP		Glass	
☐ Sealed Concrete	☐ Unistrut	✓ CMU		☐ Height- 4"	☐ 48in	
✓ Other	Other	Other	Other	<b>☑</b> Other	☑ Door Size	3'-0" x 7'-0"
See Note 2 Below						
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		☐ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		Casework Materia	
☐ Biological Safety	Cabinet		Deep Sink		Counter Material	
Other			☐ Floor Drain		Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization			☐ Floor Sink		☐ Tall Cabinets	
☐ Air Change Per H	lour		Other		☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhaus	st)			Peg Board	
POWER AND DATA	A		LABORATOR	Y SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			Compressed air		SPECIAL REQ	<b>JIREMENTS</b>
☐ Ceiling Mounted	☐ Floor Mounte	d	☐ Purified Water		☐ Vibration Control	
☐ Emergency	UPS		Vacuum		Temperature	
☐ 120V					Acoustics	
□208V			Other/Specialty		Humidity	
□480V			HAZARDOUS MAT	TERIAL STORAGE	☐ Sound Isolation	
<b>☑</b> Data	☐ WiFi Router	Comm.	☐ Acid/ Corrosive	Flammable	Radioactivity	
Other	Coo Floatrical 9	IT/COMM B.O.D's	Toxic	Radiactive	Other	
	See Electrical &	TI/COMM B.O.D S	Other			
LIGHTING			SAFETY EQUIP./F	IRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.	O.D.	☐ Safety Shower		☐ White Board	
☐ Task Light			☐ Eyewash		Monitor	
☐Zoned Lighting			Goggles		☐ Projection	
Dimmer			☐ PPE		SECUR	RITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	nt		Sprinkler Type		☐ Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher		✓ Access Contol	



Program ID:	8.18	Room Name: IDF/MDF Rooms	Department:

- A. General Notes:
  1. At one (1) wall of IDF/MDF rooms, provide 5/8" thick fire-treated plywood 8'-0" high x length of wall.
  2. Provide static dissapative flooring at IDF/MDF rooms.
  3. Provide 6" high concrete house keeping pads under all floor mounted equipment.



Program ID:	8.19	Room Name:	Janitor Closet	S		Department:
Quantity:		Area (SF):		Occupants:	<u> </u>	C+S
Function:		-		_		-
		IN	ITERIOR FINIS	SHES		
FLOORING	CEILINGS	PARTITIONS	WALL FINISH	WALL BASE	DOC	R
☐ Carpet	<b> ✓</b> GWB	<b> GWB</b>	<b>☑</b> Epoxy	✓ Integral Cove	☐ Hollow Metal	
☐ Sheet Flooring	□ACT	✓ Mold/Moisture	☐ Paint	Cove	✓Wood	
☐ Rubber Flooring	Open	☐ Impact Resistant	FRP		Glass	
Sealed Concrete	☐ Unistrut	□ сми		☑ Height- 4"	☐ 48in	
<b>☑</b> Other	Other	Other	Other	<b>☑</b> Other	☑ Door Size	3'-0" x 7'-0"
Epoxy				Ероху		
<b>DUCTED LAB EQU</b>	IPMENT		PLUMBING	SERVICES	CASEW	ORK
☐ Fume Hood			Lab Sink		_ Mobile Casework	
Snorkel			☐ Hand Wash		☐ Fixed Casework	
☐ Canopy			Cup Sink		− □ Casework Materia	
☐ Biological Safety	Cabinet		☐ Deep Sink		_ ☐ Counter Material	
Other			☐ Floor Drain		_ □ Other	
HVAC			Scullery Sink		STOR	AGE
☐ Pressurization	1		✓ Floor Sink	Mop Sink	Tall Cabinets	,
☐ Air Change Per H	lour		Other		_ ☐ Tall Shelving	
☐ Air Filtration (Sup	pply and/or Exhau	ıst)			Peg Board	
POWER AND DATA	A		LABORATOR	RY SERVICES	Lockers	
☐ Island Bench			□Nitrogen		☐ Mobile Cabinets	
Perimeter Bench			$\square$ Compressed air		SPECIAL REQ	UIREMENTS
☐ Ceiling Mounted	☐ Floor Mounte	ed	☐ Purified Water		☐ Vibration Control	
☐ Emergency	□UPS		□Vacuum		Temperature	
☑ 120V					Acoustics	
□ 208V			☐ Other/Specialty		Humidity	
☐ 480V			HAZARDOUS MA	TERIAL STORAGE	☐ Sound Isolation	
☐ Data	☐ WiFi Router	☐ Comm.	☐ Acid/ Corrosive	☐ Flammable	Radioactivity	
Other			Toxic	Radiactive	Other	
			Other			
LIGHTING				FIRE PROTECTION	VISU	AL
Ambient Light Level	See Lighting B.	O.D.	☐ Safety Shower		_ ☐ White Board	
☐ Task Light			☐ Eyewash		_ Monitor	
☐ Zoned Lighting			Goggles		Projection	
Dimmer			☐ PPE		SECUE	RITY
☑ Occ Sensor			☐ In-Use Signage		□сст∨	
☐ Window Treatme	n <u>t</u>		Sprinkler Type		Keyed Entry	
☐ Natural Light			☐ Fire Extinguisher	•	Access Contol	



Program ID:	8.19	Room Name: Janitor Closets	Department:
riogiani ib.	O. I J	Room Name. Jamitor Closets	Department.

