

WY 21-18-304 A11: Requires each Community College to update their facilities master plan every five years.

Previous master plan efforts:

- 2004
- 2011 (with appendixes)
- 2016
- 2020 Ag

Inclusion in the Master Plan is the first step in the design sequence, and is a preface to:

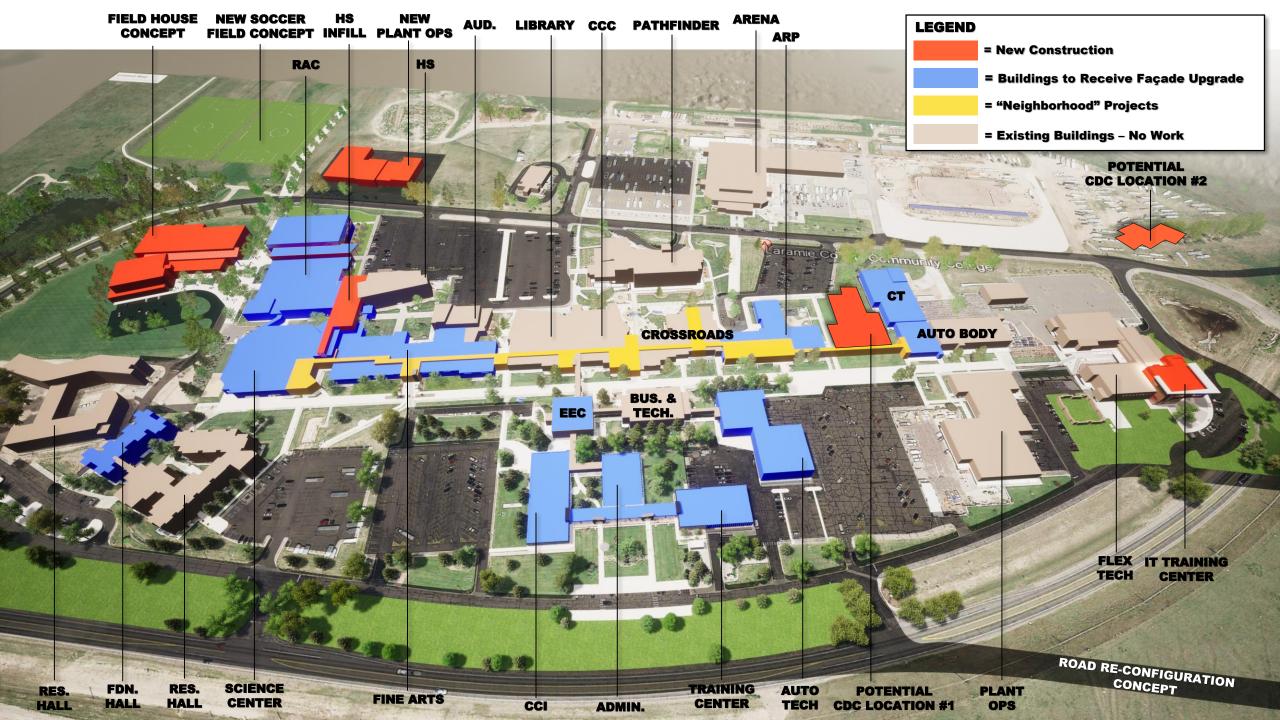
Level I/II Preliminary Design (for funding)

 Level III Final Design and Construction (implementation)



TASKS	END DATE	2021 June	July	Aug.	Sept.	Oct.	Nov.	Dec.
PROPOSED NEW FACILITIES								
Kickoff Meeting	07/15/21	1	•	1				1
Indoor Turf Facility Project						 		1
Leadership Review				1		 		1
Physical Plant Building Project					, 	, 		! !
Campus Storage Facility Project		1			 	 		-
Leadership Review				•	 	 	<u> </u> 	1
PROPOSED RENOVATIONS								
HR Consolidation/Crisis Center Remodel				•		 		1
8 Master Plan Storefront Nelghborhoods		1			 	 		
IT Training Center				 	•			
Advanced Manufacturing Workforce Center & Fabrication Lab				1 1	•			
Leadership Review					 	•		1
Healthcare Program Lab Expansion		1		 	 			
The Cookhouse - Culinary Lab				 	 			1
Leadership Review				1			**	1
Campus Aesthetics, Re-skin 8 buildings		1	•		 	 		 - -
Building Condition Index Assessment		1	•				•	
Campus Landscaping		-	•			I I	•	
Campus Parking Evaluation			•				•	1
Issue Draft Final Report	11/17/21						•	
Leadership Review				1	 	I I		•
Final Presentation To Board	12/1/21			!	 	 	-	•

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Kickoff Meeting	07/15/21	1	* ~	1	1		1	1
Indoor Turf Facility Project					-		 	
Leadership Review				1	•	//		-
Physical Plant Building Project		1		\			 	
Campus Storage Facility Project		1		V		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 	 - - -
Leadership Review				•		1	1	
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Leadership Review		-		i I	i I	•		1
Healthcare Program Lab Expansion				1	 			
The Cookhouse - Culinary Lab				1 1 1 1	! ! !	•		
Leadership Review				1	 	1	•	
Campus Aesthetics, Re-skin 8 buildings				•				
Building Condition Index Assessment		1						
Campus Landscaping		1	•	1	I I			
Campus Parking Evaluation			•	1	I	1		
Issue Draft Final Report	11/17/21	1			1	1	•	!
Leadership Review		-		1	I I	1		•
Final Presentation To Board	12/1/21			1	!			♦









DATE Thursday, September 23, 2021 753 Apr. LAST SANTO Bit LADGEON



MARTIN/MARTIN W Y O M I N G 10 0 20 SCALE: 1"=20" ALL DIMENSIONS ARE U.S. SURVEY FEET C501



MARTIN/MARTIN W Y O M I N G

20 10 0 20 AL DIMINISTRA U.S. SERVEY FEET



Site Assessment, Cheyenne, Wyoming October 27, 2021



According to the utility maps, there is an extensive underground storm drainage system conveying flows west of the high point. It appears that this system has been modified and expanded over the years as the campus grew and buildings filled in open spaces. One item of note is the inability for drainage to be routed via surface flow due to the existing structures blocking overland paths. Buildings along the north side of the central pedestrian corridor are located below the path.



Photo 5 - ARP Building South Entrance

SCHEMATIC NARRATIVE



Laramie County Community College, Cheyenne, Wyoming October 27, 2021

GENERAL

The Laramie County Community College (LCCC) is located on the south end of Cheyenne, Wyoming. It consists of approximately 260 acres of developed and undeveloped land and is bounded by undeveloped and developed land. It is more specifically located on the north side of College Drive/Wyoming Highway 212. Refer to the plat in the enclosures for specific location of property lines. The existing site is made up of roughly 28 multi-use buildings. These buildings range in age from 70 to 4 years old.

DOMESTIC WATER

South Chevenne Water and Sewer District is the domestic water service provider to the College. There are two main meter locations that serve the entire LCCC campus. Internal to the campus, the system is private and maintained by the College.

There are four metered connections to the South Cheyenne water main. An 8-inch and 2-inch meter located at the west end of the campus and a 10-inch and 2-inch meter located at the east end of the campus.

The existing water distribution system consists of water mains, laterals, service lines, and fire hydrants for the entire site. The water mains located throughout the site are either 10-inch or 8-inch; service connections vary in size. Not all buildings on the campus are equipped with sire sprinkler systems.

As the college opened in the late 1960's, it could be assumed that the older portions of the water distribution system consist of cast iron pipe. Since 2006, there have been significant modifications to the existing system. Portions have been replaced with modern lines while new lines have been installed with the construction of several new buildings. Most of the improvements have occurred on the north half of the campus.

The distribution lines within central corridor are believed to still be mostly original piping. Per discussions with facility staff, the older portion of the system has deteriorated, and maintenance efforts have increased. This is the area of primary concern for the facility staff. Staff reported that failures observed include corrosion and pin hole deterioration of metallic pipe.

It is assumed that the newly constructed buildings (10 years or younger) have backflow preventers per Wyoming Department of Environmental Quality Rules and Regulations. It was determined during discussions with the facility staff that the older buildings do not have backflow preventers. It is recommended that all facilities be assessed for backflow protection.

MARTIN/MARTIN WYOMING, INC.

4020 Laramie Street Cheyenne, Wyoming 82001 mmwvo.com

Lakewood, CO martinmartin.com

Fort Collins, CO Bay Area, CA Northwest Arkansas

Laramie County Community College, Cheyenne, Wyoming October 27, 2021





Photo 7 - Roof Drain on Fine Arts, North Face



Photo 8 - Old Residence Hall, North Face

A drainage study was not conducted with this Master Plan update, discussions with staff, and on-site observations suggest that this system may not be adequately sized to convey flows or may not be extensive enough to capture runoff, especially from roof drainage and downspouts. Further detailed studies of the drainage system along the central pedestrian corridor path are recommended.

For any future construction on LCCC Campus, as part of the site approval process, Laramie County requires an approved Site Plan, Grading, Erosion and Sediment Control (GESC) permit, and Storm Water Pollution Prevention Plan (SWPPP). Construction plans for the proposed storm sewer and detention/stormwater quality systems will also require review and approval.

Project
Project # 21-039

Date Title | Date | DUILDING IMPROVEMENTS ON LCCC CAMPUS

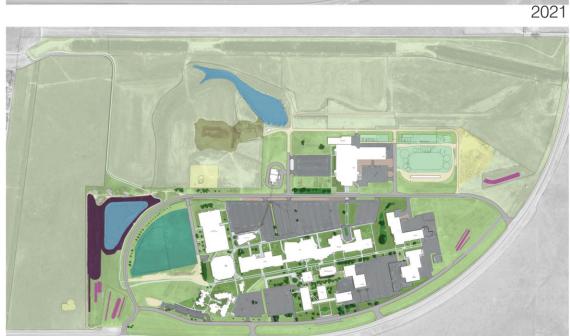


BUILDING IMPROVEMENTS SUMMARY

BUILDING NAME Administration	PROJECT CATEGORY Site Site Site Site Site	IMPROVEMENT CATEGORY Maint/Repair Maint/Repair Maint/Repair Maint/Repair Maint/Repair	COMMENTS Adjust splash blocks to prevent standing water against buildings Replace broken splash blocks Mow strip movement on north side of building Drainage and site improvements need on north side of building Provide underground hard pipe from downspouts to storm sewer to prevent water ponding against building	PRIORITY Immediate Immediate Short Term Short Term Short Term	COST
Agriculture Building	Site Site Site	ADA ADA Maint/Repair	Provide ADA compliant pvmt markings from parking stalls to sidewalk Provide ADA compliant ramps from parking lot to building entrance Provide underground hard pipe from downspouts to retention area	Short Term Short Term Short Term	
ARP	Site Site	ADA Maint/Repair	Provide ADA compliant pvmt markings from parking stalls to sidewalk Provide underground hard pipe from downspouts to storm sewer to prevent water ponding against building Replace settled mow strips and reseal at northwest corner of	Short Term Short Term Short Term	
	Site Site Site	Maint/Repair Code ADA	building Fill voids under mow strip at south wall Provide ADA accessible ramp to south entry	Short Term Long Term	











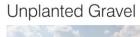










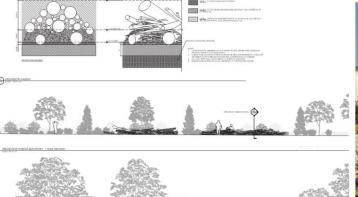




Building Footprints



~2011



NW Winds - Create series of vegetated breaks and/or Hedgerows that increase biodiversity and micro-ecologies



Connection to Sweetgreen Development and Greenway Integration - Identify LCCC-to-Sweetgrass connection and find opportunities for nodes of interest to increase the Campus visibility in Cheyenne as a destination.



Signature Areas - Identify and provide initial concepts for target areas such as building entrances and gathering spaces to encourage interaction and a sense of place.



Reduce Irrigation needs with Planting - identify opportunities to replace turf to reduce water needs and maintenance.



BioBlitz - an event that focuses on finding and identifying as many species as possible in a specific area over a short period of time. Integrate with local biologists and students

Additional Items:

- · Canopy Cover Increase deciduous tree plantings along pedestrian Circulations and parking areas
- · Horse trails investigate horse riding around campus and it's opportunities
- Site Boot Sculpture Find an appropriate home for the Art piece Landmark
- Bike Lock up access increase bike lock up points at building entrances and investigate opportunities for an on campus bike share/scooter parking location
- Pervious Pavement opportunities Identify areas where impervious pavement can be replaced to increase water infiltration







DRAFT

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13	Training Center (TC)
15	Administration (AM)
17	Center for Conferences and Institutions (CCI)
19	Residential Hall (RH old)
22	Residence Hall New (RH)
24	Science Center (SC)
26	Recreation & Athletic Complex (RAC)
28	Health Sciences (HS)
30	Fine Arts and Auditorium (FA/AUD)
32	Library (LIB)
34	College Community Center and Crossroads (CCC/CR)
36	Children's Discovery Center (ARP)
38	Clay Pathfinder (PF)
40	Central Plant North (CPN)
42	Arena and Agriculture (AG)



Building Auto Tech (AT)

Structural Description Precast double tee walls and roof

Date Observed September 3, 2021

Observation By Derek Swanson



Condition Summary:

The main building is in fair condition with some areas that warrant some repairs or further investigation. The building includes a loading dock on the west side and a bridge connector to the Business Technology building. No movement or settlement of the foundation was observed. Drainage around the bridge connector could be improved. Multiple down spouts discharge adjacent to the connector and are causing erosion.

Noted Issues or Irregularities:

- AT.1: Handrail post bases at the loading are rusting and causing the concrete to deteriorate around them.
- AT.2: There are a couple of concrete spalls in the webs of the double tee walls.
- AT.3: Some of the double tee webs at the stairs on the north side are experiencing freeze/thaw damage.
- AT.4: There appears to be some movement at the wing wall of the west entry vestibule.
- AT.5: Surface drainage around the connector bridge has caused soil erosion under the bridge.
- AT.6: Bearing plates at the connector bridge roof girders are rusting and could lead to concrete spalling.

Recommended Actions:

- AT.1: To prolong the life of the railing and slab, the bases could be painted and caulked, however they will eventually need to be patched or replaced.
- AT.2: Spalled areas should be patched and painted to prevent water intrusion.
- AT.3: The deteriorated areas need to be patched to prevent further damage. This will likely require removal of the stairs to access all the damage.
- AT.4: The potential movement should be investigated some more to try to determine if it has stabilized.
- AT.5: Correct the surface drainage away from under the bridge or provide a more durable drainage path.
- AT.6: The bearing plates should be cleaned off and repainted/sealed.

LCCC Masterplan Update



Figure 1 AT.1 - handrail base



Figure 2 AT.2 - Spalling at exterior wall



Figure 3 AT.3 - Freeze thaw damage in wall webs



Figure 4 AT.4 - movement at west vestibule



Figure 5 AT.5 - Erosion at bridge connector



Figure 6 AT.6 - Rusting bearing plates

A/M/E/P Building Condition Index Assessment

D -	BUILDING	TAG	LOCATION	SYSTEM	COMPONENT	MATEQUIP ~	SUBCOMPONENT -	YEAR INSTALLE	C
6	Central Plant North		BOILER ROOM	D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304003 HOT WATER DISTRIBUTION SYSTEMS	Heat Exchanger, Plate Type	2009	90 0
	Central Plant North		BOILER ROOM	D30 HVAC	D3020 HEAT GENERATING SYSTEMS	D302004 AUXILIARY EQUIPMENT	Expansion Tank - 1,200 gal	2009	800
10	Central Plant North		2	D30 HVAC	D3020 HEAT GENERATING SYSTEMS	D302004 AUXILIARY EQUIPMENT	Expansion Tank - 100 gal	2009	100
13	Central Plant North	HC-3		D30 HVAC	D3050 TERMINAL & PACKAGE UNITS	D305004 FIN TUBE RADIATION	Other	2009)
14	Central Plant North			D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304003 HOT WATER DISTRIBUTION SYSTEMS	Heat Exchanger, Plate Type - 400 GPM	2009	300
15	Central Plant North			D30 HVAC	D3030 COOLING GENERATING SYSTEMS	D303004 AUXILIARY EQUIPMENT	Expansion Tank - 400 gal	2009	400
10	Central Plant North			D30 HVAC	D3030 COOLING GENERATING SYSTEMS	D303004 AUXILIARY EQUIPMENT	Expansion Tank	2009	1000
17	Central Plant North			D30 HVAC	D3030 COOLING GENERATING SYSTEMS	D303004 AUXILIARY EQUIPMENT	Expansion Tank - 24 gal	2009	1000
19	Plant Operations		ROOF AND WALL	D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304007 EXHAUST SYSTEMS	Fan System, Roof Exhaust - 1500 CFM	2000)
20	Career & Technical		ROOF	D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304007 EXHAUST SYSTEMS	Fan System, Roof Exhaust - 3500 CFM	2006	3000
21	Auto Body		ROOF	D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304008 AIR HANDLING UNITS	Central Station - 10000 CFM, VAV	2011	1000
22	Auto Body		SHOP	D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304007 EXHAUST SYSTEMS	Industrial Exhaust System - 2000 CFM, 3 H.P.	1989)
23	Auto Body	AB-EF-0001	EXTERIOR	D30 HVAC	D3040 DISTRIBUTION SYSTEMS	D304007 EXHAUST SYSTEMS	Fan System, Roof Exhaust - 5000 CFM	2006	

						Total		
Building List	Year built	Last Renocation	Square Foot	Immediate	Short term	Long term	Total	Mechanical Description
Administration	1969	2006	9,650	\$13,565.47	\$71,081.44	\$95,145.34	\$179,792.25	HVAC system is aging expected life and cor
Andrikopoulos Business & Technology	1973	200	21,888	\$0.00	\$233,309.58	\$471,127.09	\$728,209.15	Pumps are nearing e AHU-2 is equiped wi
Arena	1982		74,745	\$9,128.80	\$105,285.43	\$81,579.69	\$195,993.92	Existing fans and information in the s
Arp	1981	2001	27,050	\$7,447.60	\$261,366.76	\$273,192.65	\$542,007.01	The AHU is a large un The units appear to recomended for rep
Auto Body	1974	1988	17,656	\$589.20	\$284,208.03	\$160,899.61	\$449,682.56	The autobody shop I beyond the expected
Auto Tech	1973		22,687	\$9,266.50	\$115,906.60	\$101,182.96	\$226,356.06	AHU and pumps are term.
Boyd Agriculture	1985		15,284	\$860.00	\$143,388.73	\$198,316.68	\$342,565.41	AHU is the original s condition it is 10+ ye Recommend replace
Career & Technical	1979	1989	27,900	\$3,137.49	\$277,332.60	\$149,215.78	\$429,685.87	Many units are beyo pneumatic controls, into the mechanical replace in the short
Center for Conferences & Institutes	1969	1990	15,921	\$4,790.20	\$251,393.19	\$392,674.54	\$648,857.92	AHU is beyond exper replacement in the s
Central Plant North	2009		4,880	\$0.00	\$44,762.86	\$1,070,027.98	\$1,133,665.30	The equipment in CF condition. A numbe replacement in the s
Clay Pathfinder				\$0.00	\$12 629 00	\$1 277 259 58	\$1 289 888 58	· ·



17: LCCC_AG_D30



19: LCCC_AG_D30



18: LCCC_AG_D30



20: LCCC_AG_D30

wood.

PROJECT NO.: 3270BLD26 DATE 10/31/2021

PAGE 5



LCCC / Master Plan Update Campus Standards for Technology Systems

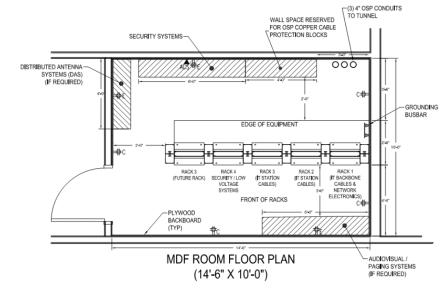
- Develop Standards for the following Technology Systems
 - > Structured Cabling Systems
 - Wireless Data Networks
 - Video Surveillance System
 - Access Control System
 - > Intrusion Detection System (if required)
 - Video Intercom System (if required)
 - > Cable TV Systems Infrastructure & Cabling Only
 - Audiovisual Systems

• The demarcation of the Wyoming Statewide Enterprise Technology Services (ETS) fiber optic infrastructure is also in the EEC Data Center.

Each MDF room within a building will need to provide outside plant underground raceways to the existing tunnel as part of the pathway for installing fiber and copper backbone cables between new buildings and the campus infrastructure. Refer to the Pathways section of the standards for OSP pathway requirements.

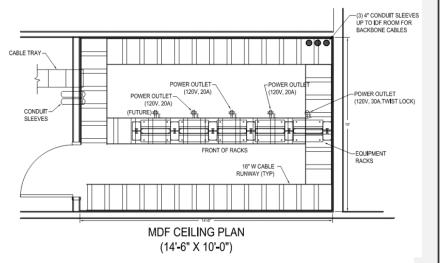
The MDF room layout below, along with the provisioning of these rooms as also specified below, shall be the College's minimum standard for MDF rooms.

Technology designers and consultants should identify any additional project specific requirements that may require more rack or wall space, affecting the size of the MDF room. The designer should draft preliminary layouts of the MDF room for coordination with the Architect and review and approval by the Owner.



Division 27 Structured Cabling System Campus Standards (draft)

December 6, 2021 Page 10 PlanOne Architects Prepared by: TCS, Inc.



5. MDF Room Provisioning

Many of the architectural and building facility requirements for an MDF room are the same as TR rooms, with exceptions noted below.

The MDF room layout below, along with the provisioning of these rooms also as specified below, shall be the College's minimum standard for MDF rooms.

Technology designers and consultants need to coordinate these requirements with the Architect and other design team members such as the mechanical and electrical engineers to ensure the rooms are properly provisioned.

A. MDF Rooms - Ladder Rack/Cable Runway

Similar to a TR room, ladder rack/cable runway would be installed around the perimeter of the rooms and above the row of equipment racks and cabinets, with an 18 inch width.

B. MDF Rooms - Doors

TR room doors shall be at least 3'-0" in width and hinged to swing outward to provide additional useable space within the rooms.

C. MDF Rooms - Floor Loading and Finishing

Floor loading and finishes shall comply with the following:

- The floor rating in ER rooms should bear both the distributed and concentrated loads of the installed equipment. ER rooms shall be designed for a minimum distributed load of 200 pounds per square foot and a minimum concentrated load rating of at least 2,000 lbf.
- Floor finish within the MDF rooms shall be sealed concrete, unless there are special project requirements for anti-static Vinyl Composition Tile (VCT) to reduce static discharge that may damage equipment.

D. MDF Rooms - Power

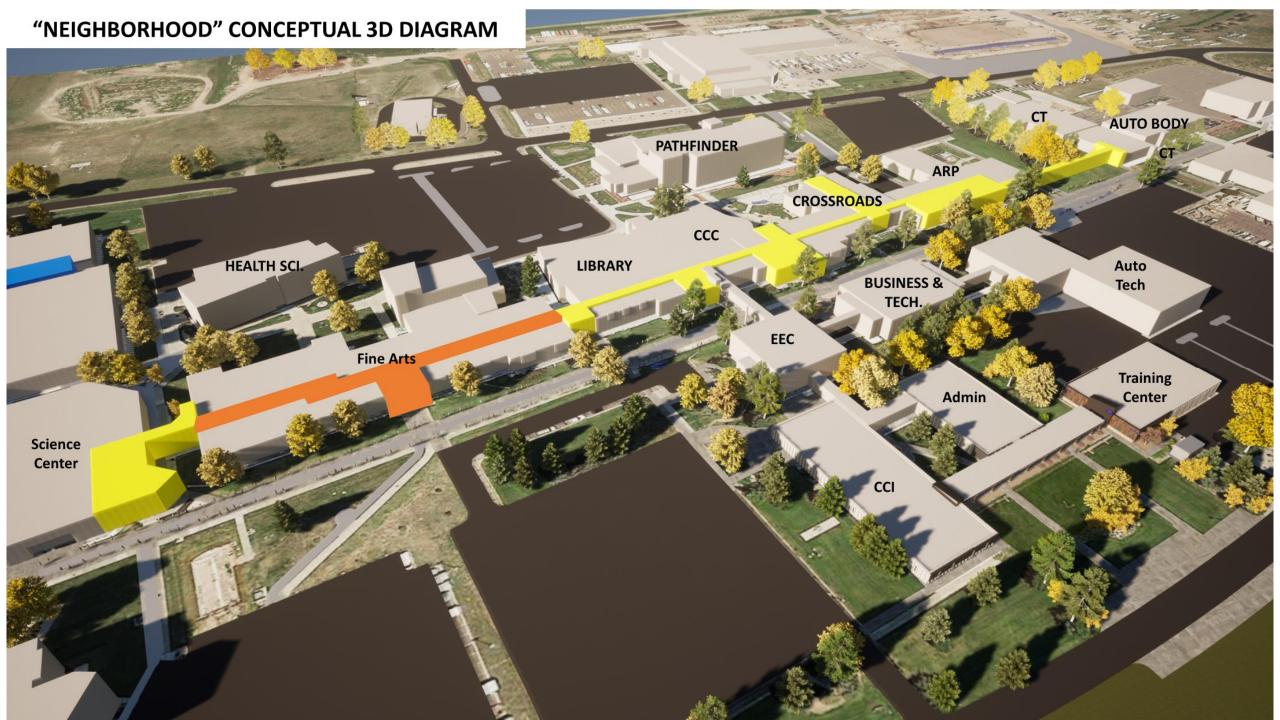
Below are the minimum power requirements for MDF rooms. Final power requirements may differ, based on the specific equipment that will be installed by the College and the Security /

Division 27 Structured Cabling System
Campus Standards (draft)

December 6, 2021 Page 11 PlanOne Architects
Prepared by: TCS, Inc.





















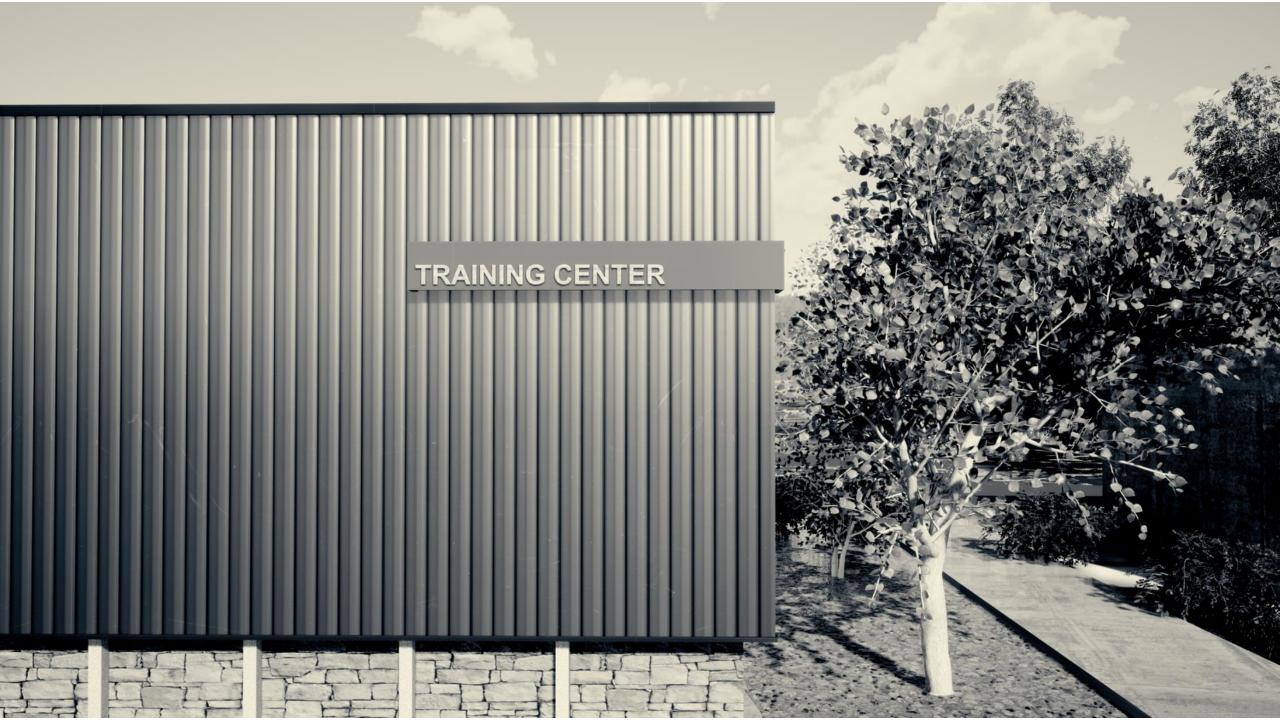




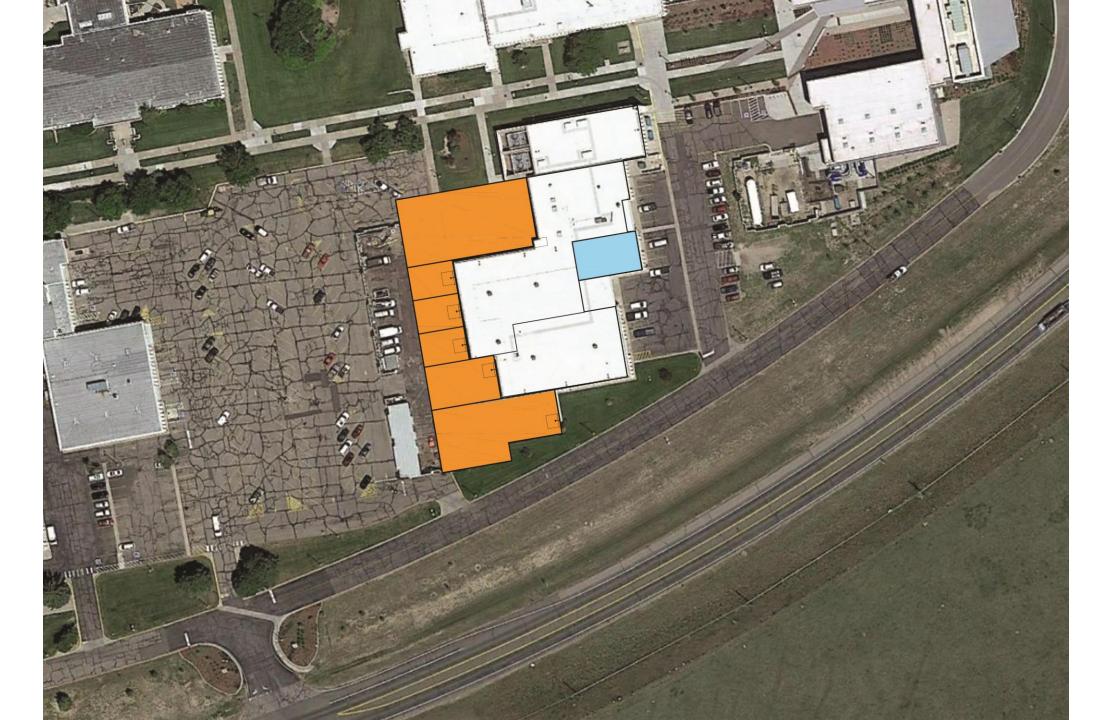


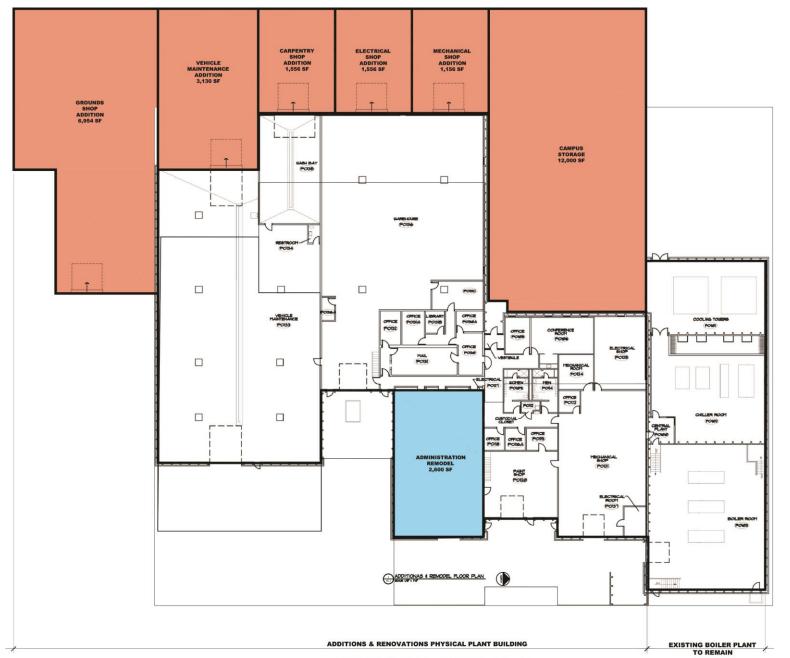






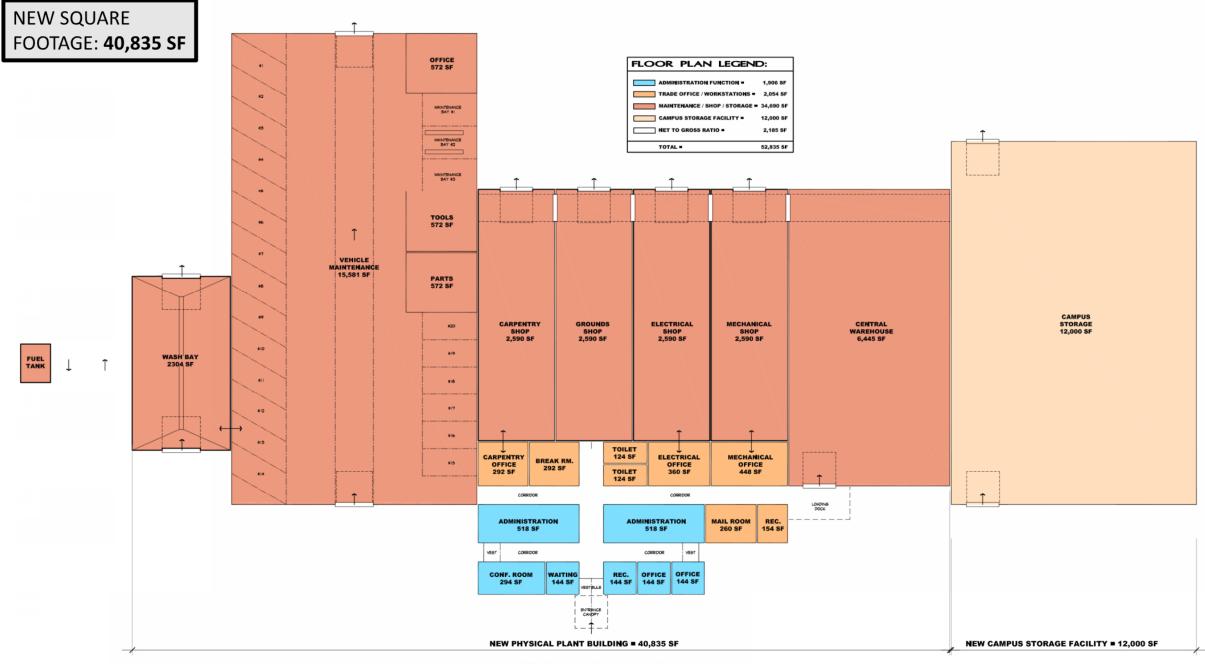
Physical Plant / Campus Storage Options



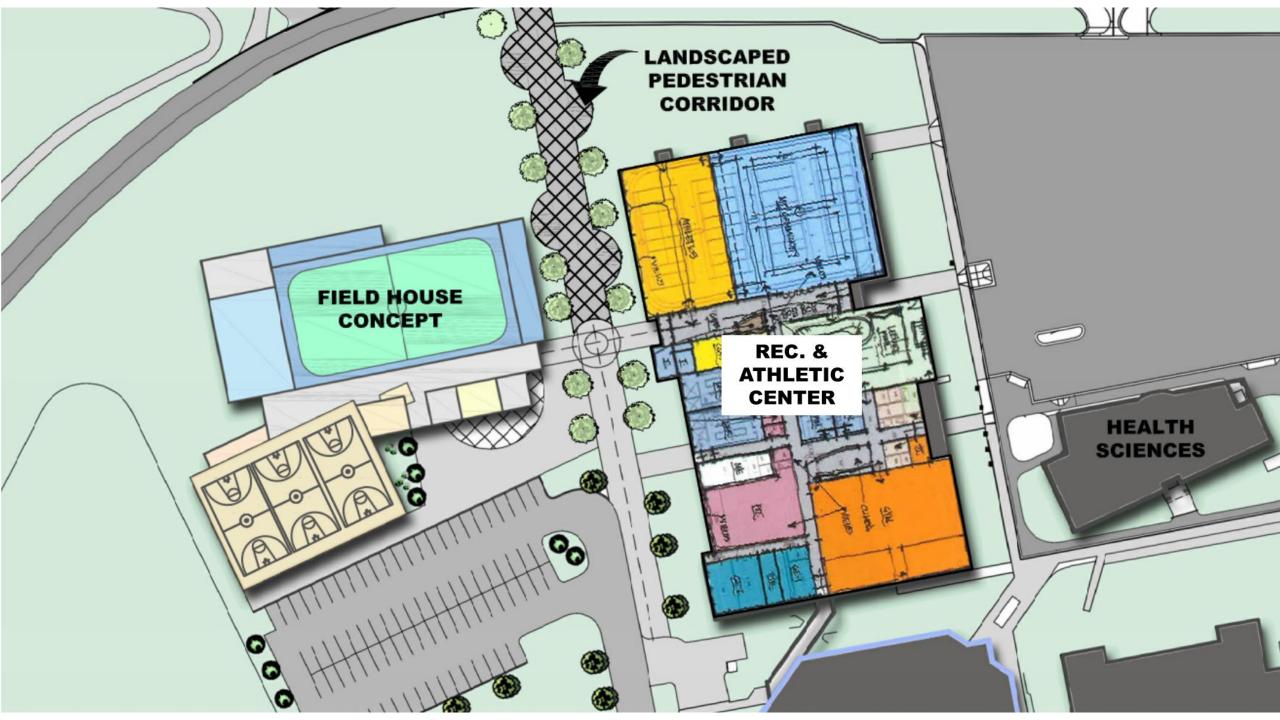




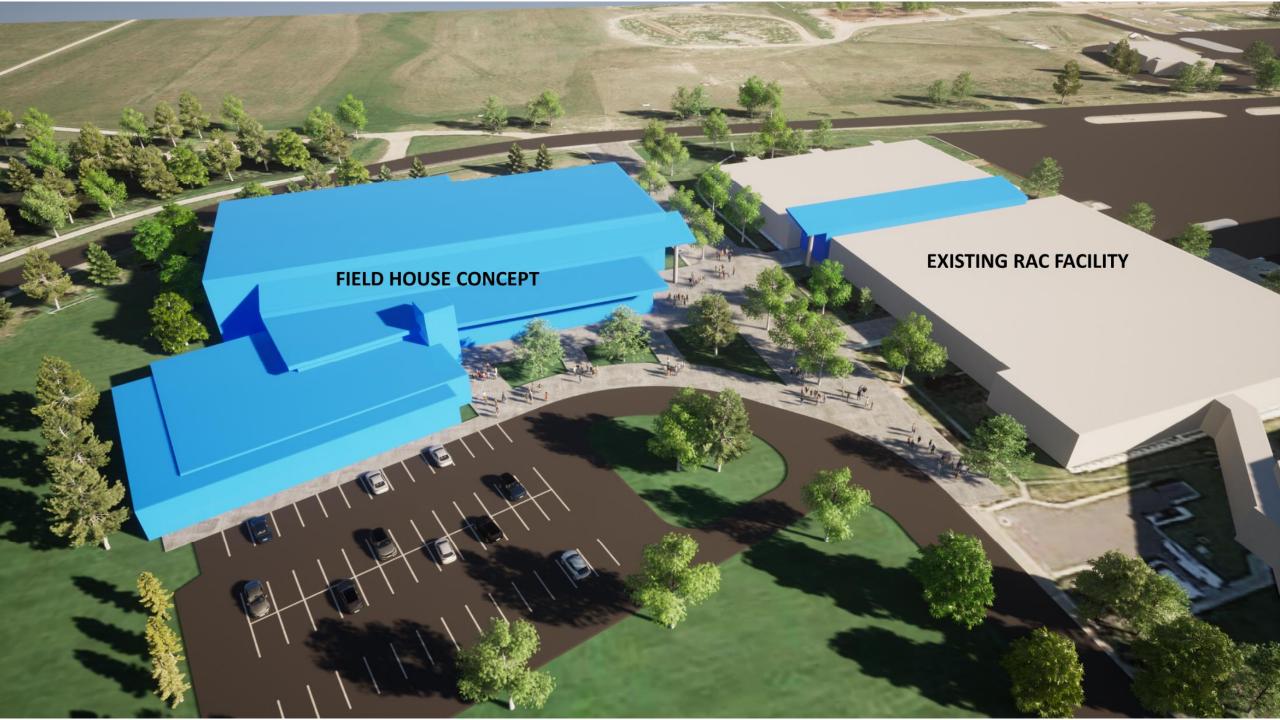




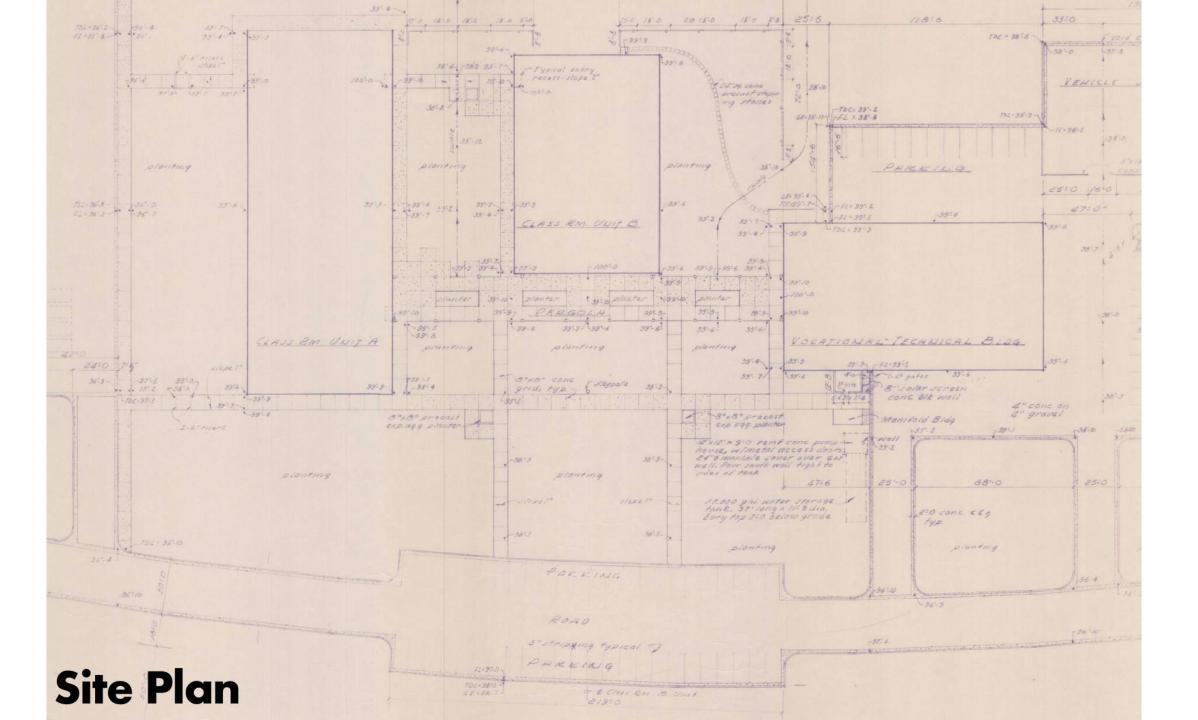


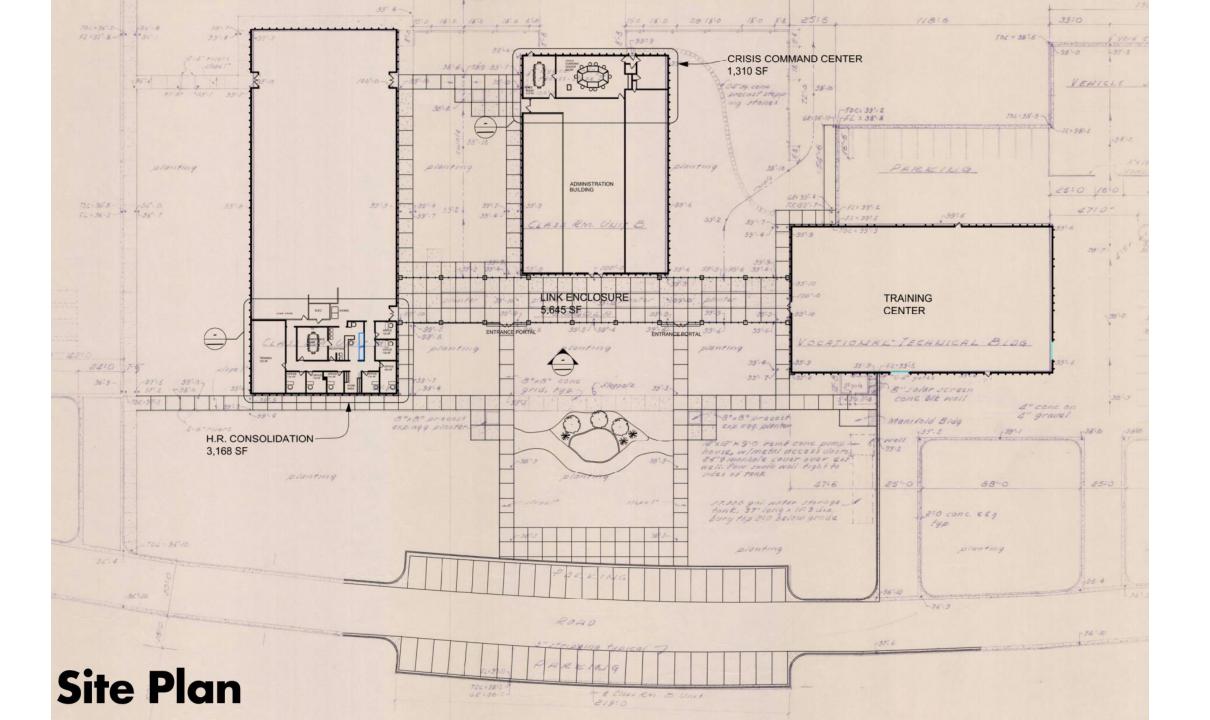


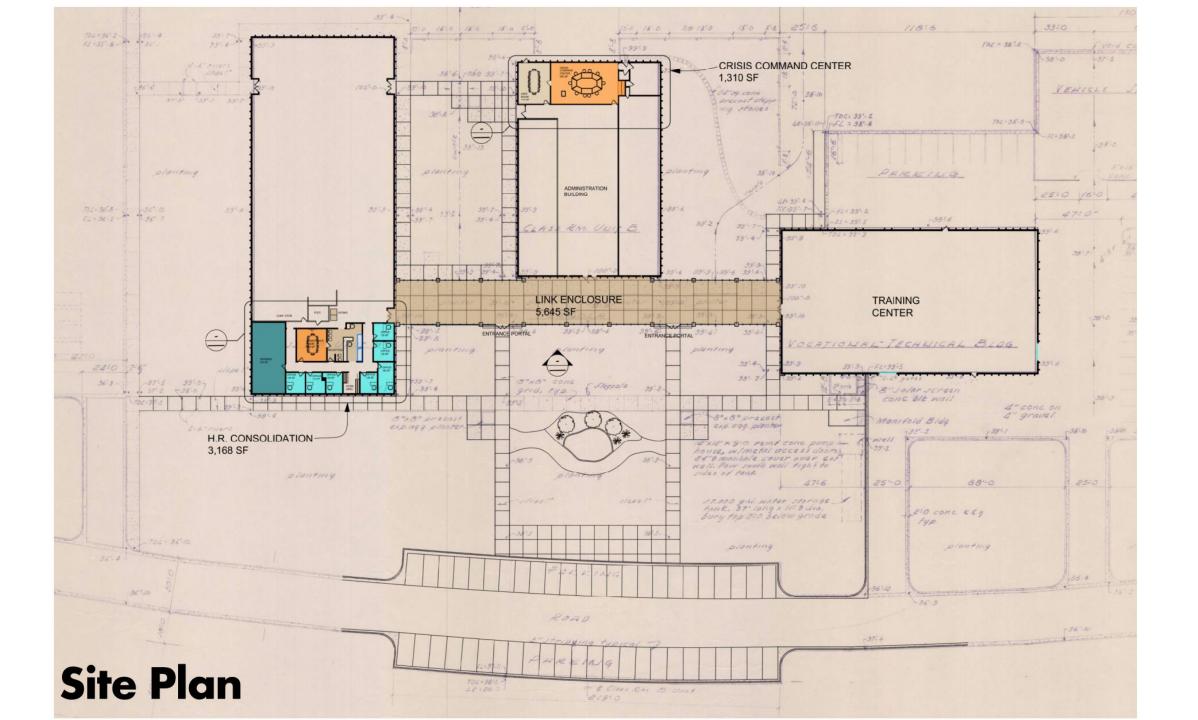




HR Consolidation / Crisis Center / New Main Entrance

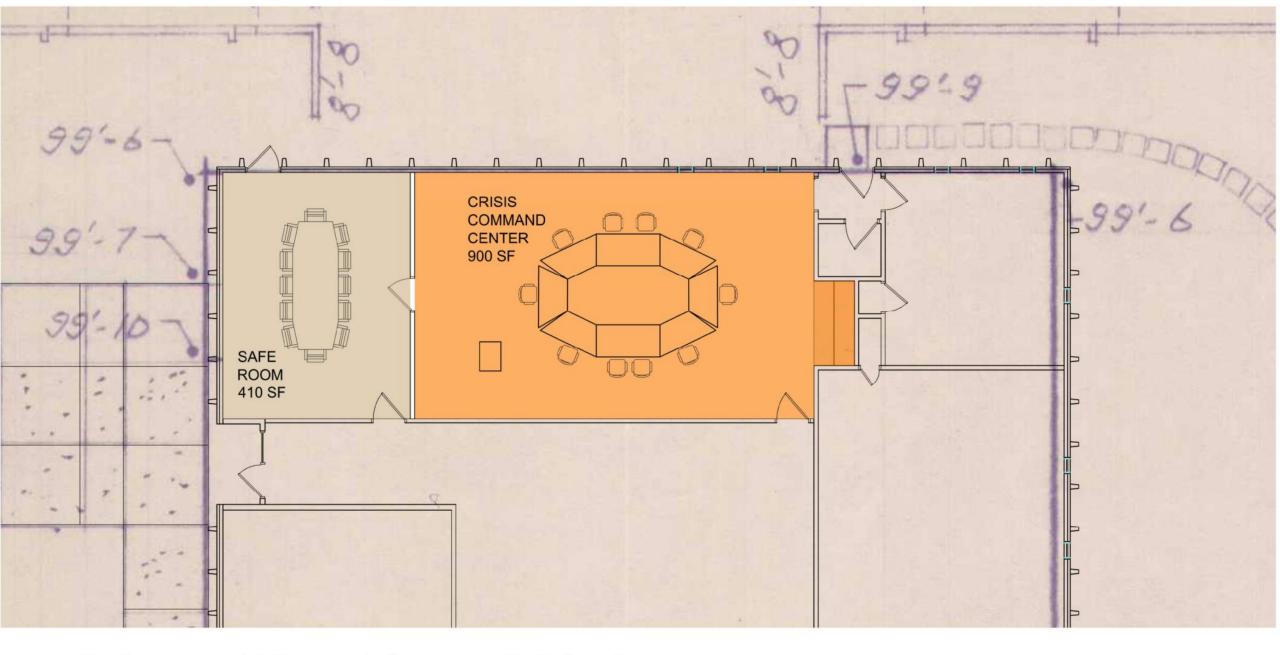








Enlarged Floor Plan – HR Consolidation



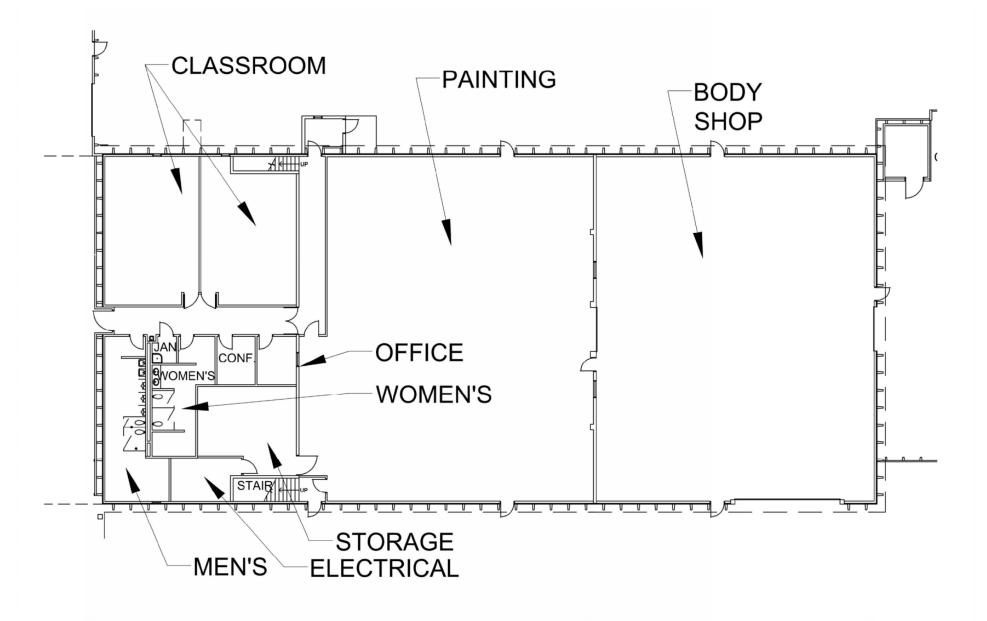
Enlarged Floor Plan – Crisis Center



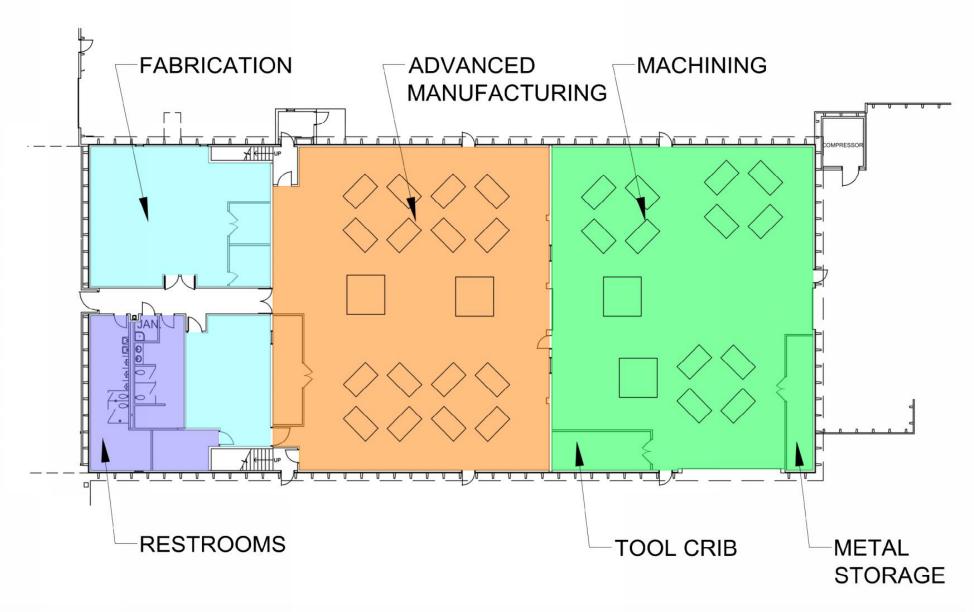








EXISTING AUTO BODY FLOOR PLAN - 14,247 SF



ADVANCED MANUFACTURING AND MATERIALS CENTER - 14,247 SF



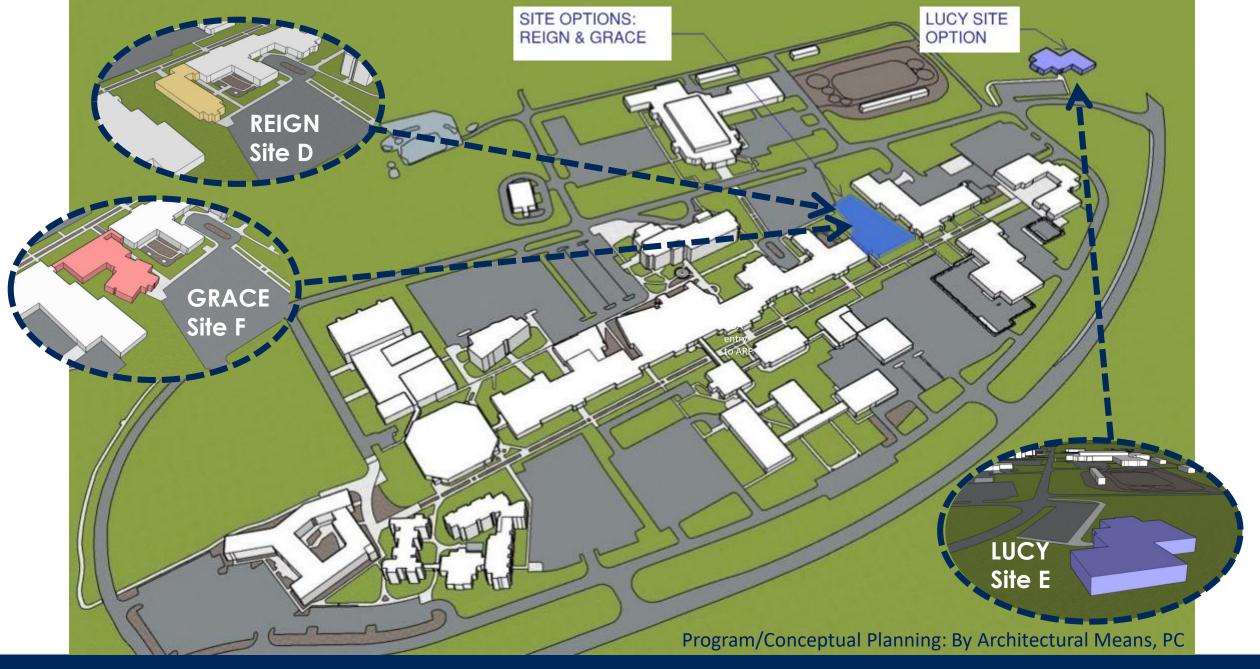


Laramie County Community College

Children's Discovery Center Expansion Planning

By Architectural Means, PC





Children's Discover Center: THREE POTENTIAL SITE OPTIONS



Site Option D

Plan Concept:

REIGN

Site Option E

Plan Concept:

LUCY

Site Option F

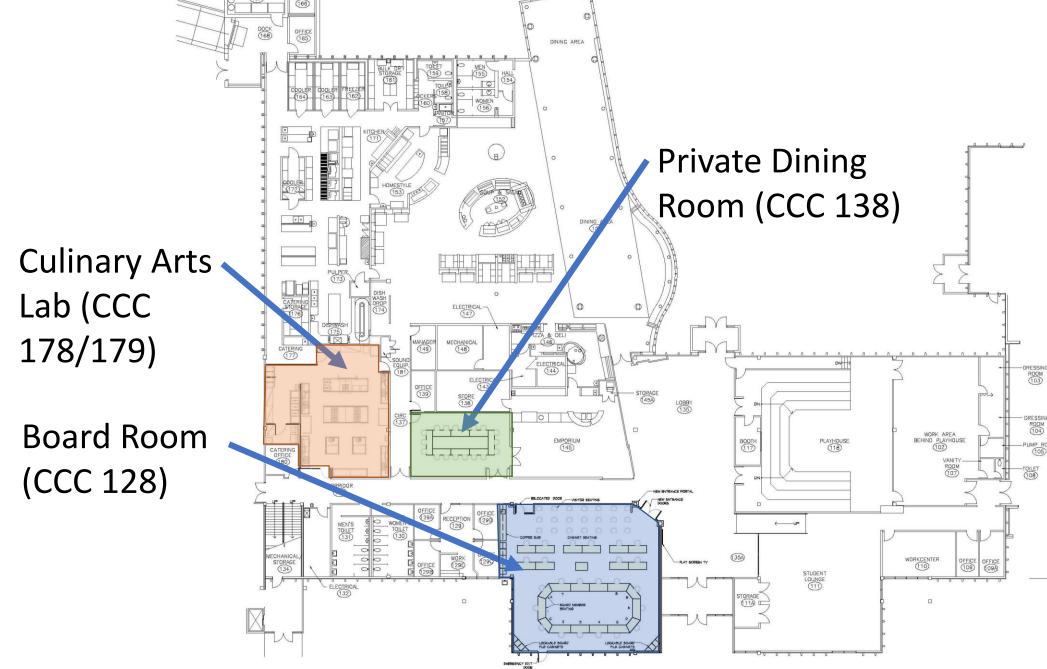
Plan Concept:

GRACE

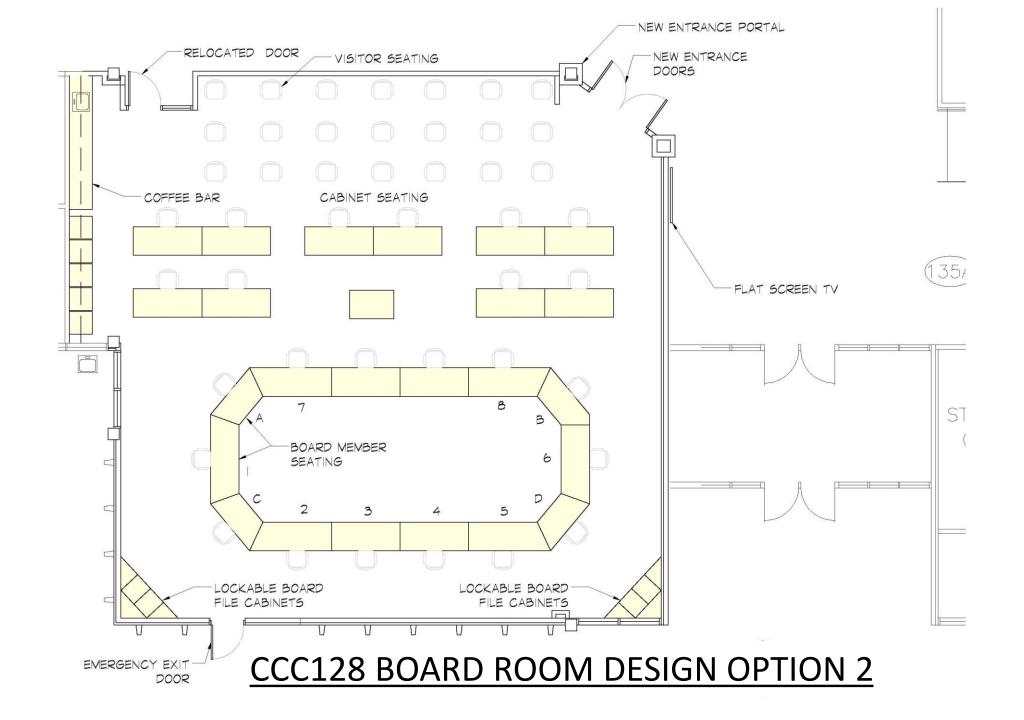
Program/Conceptual Planning: By Architectural Means, PC

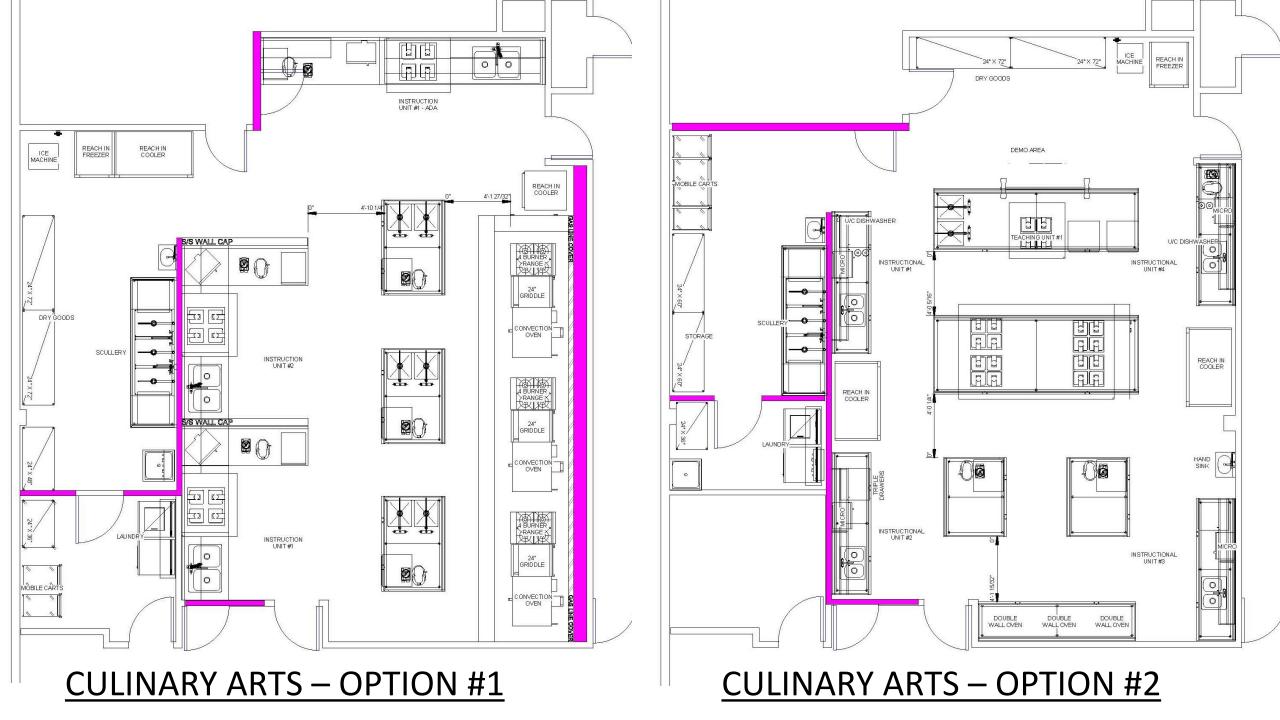
Children's Discovery Center: FLOOR PLAN CONCEPTS

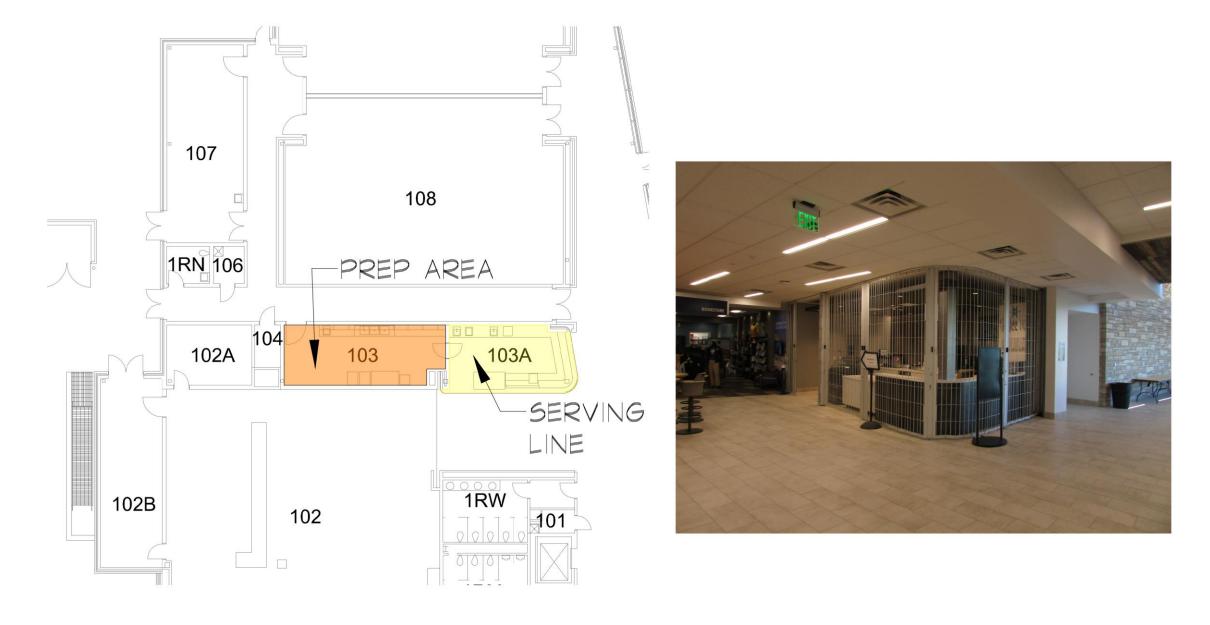




COLLEGE COMMUNITY CENTER (CCC)

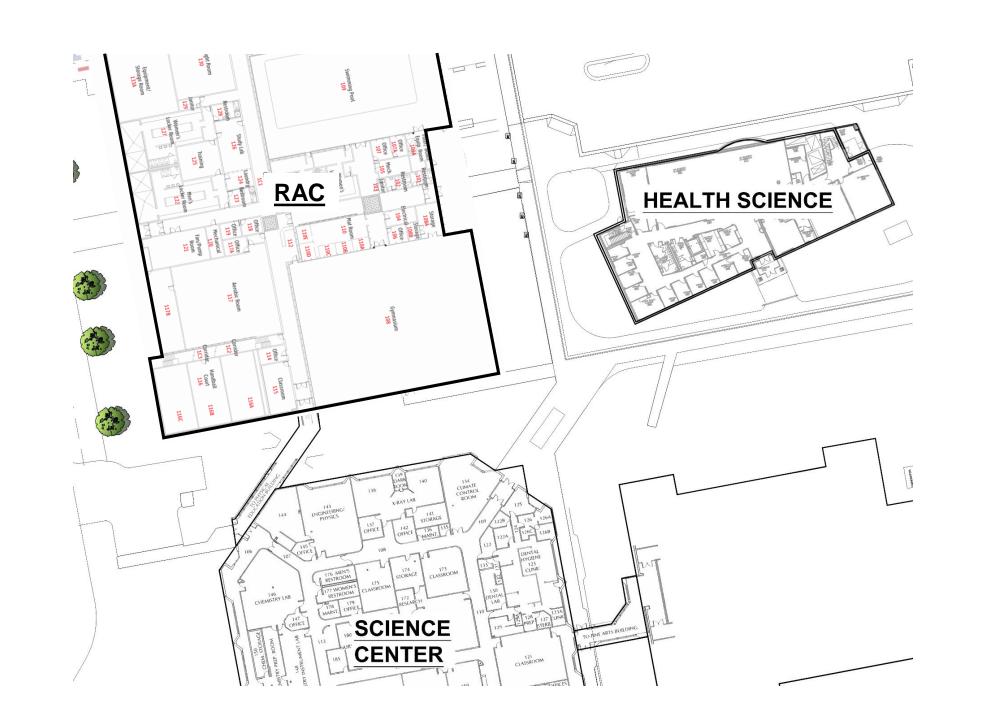


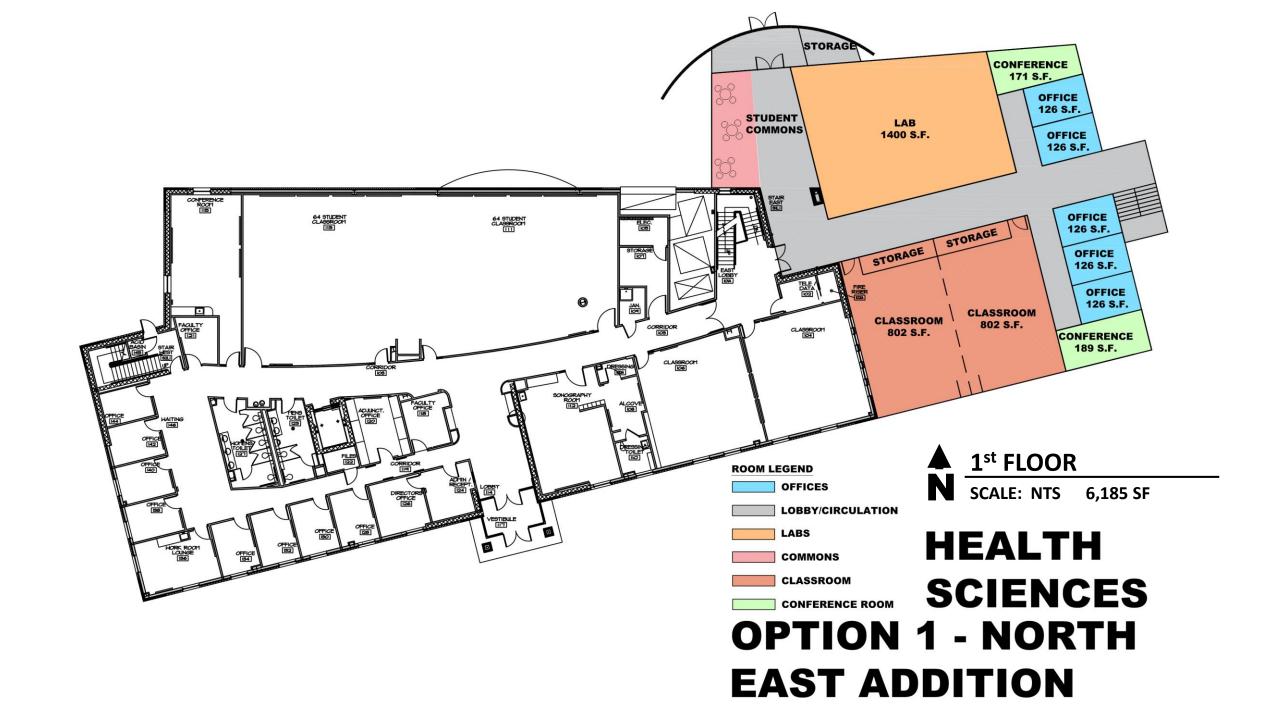


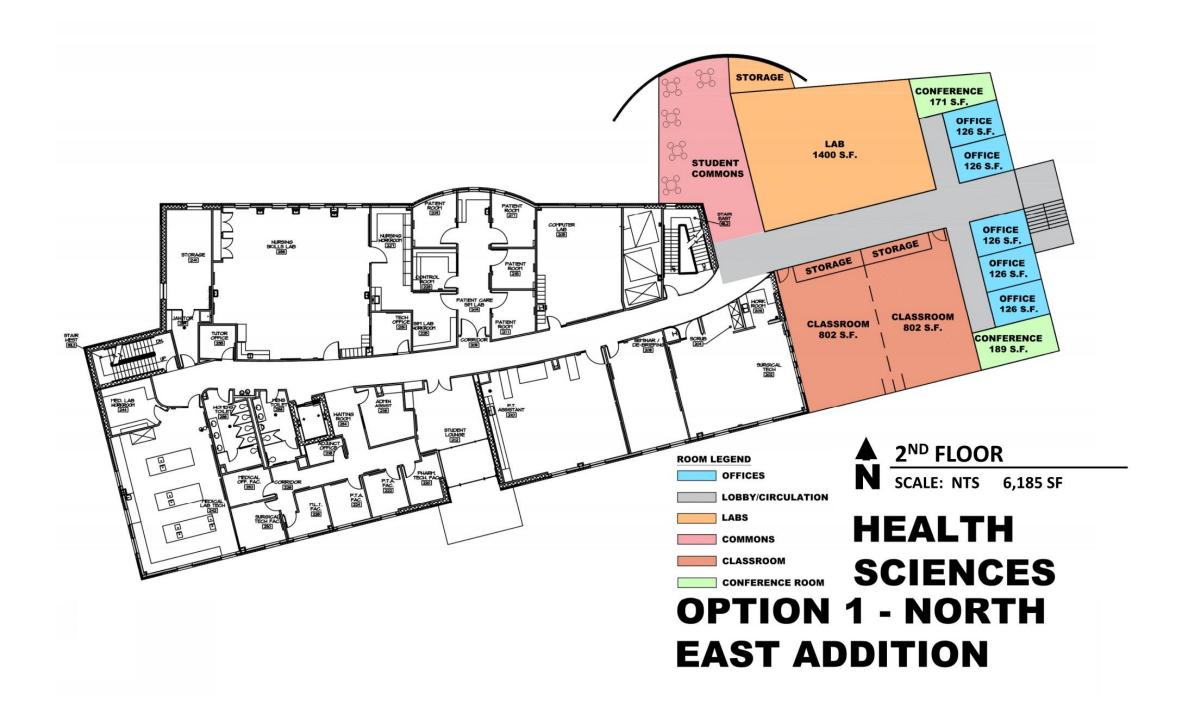


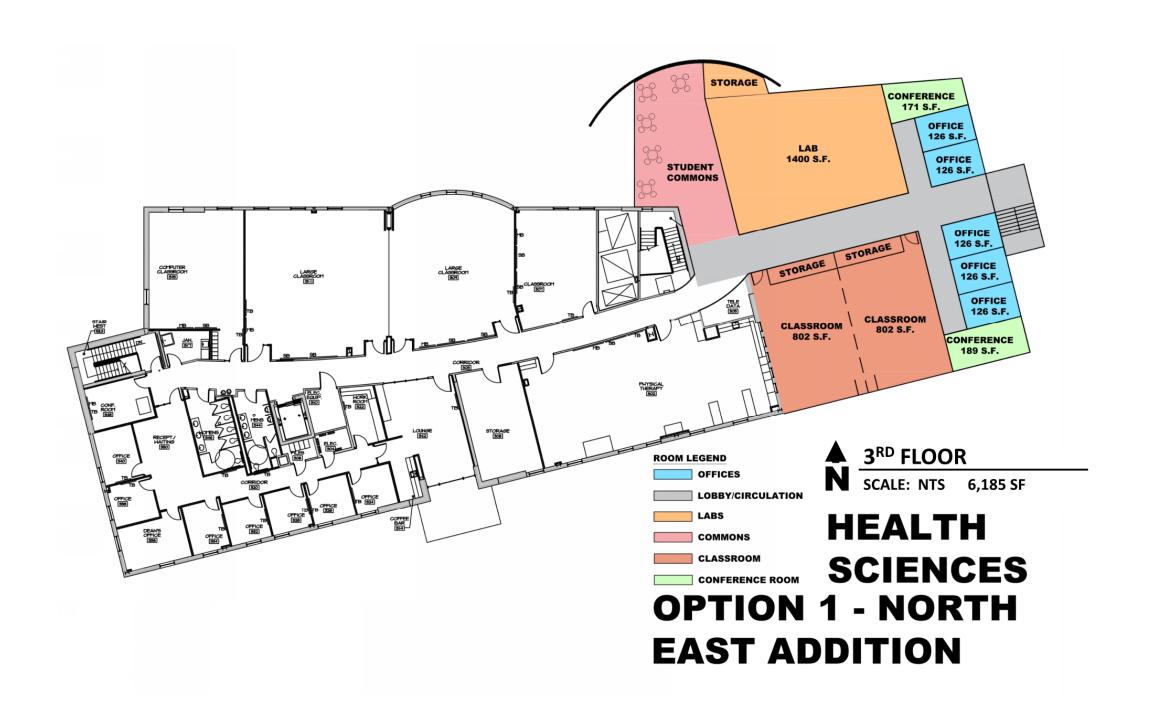
EXISTING PATHFINDER CONCESSIONS

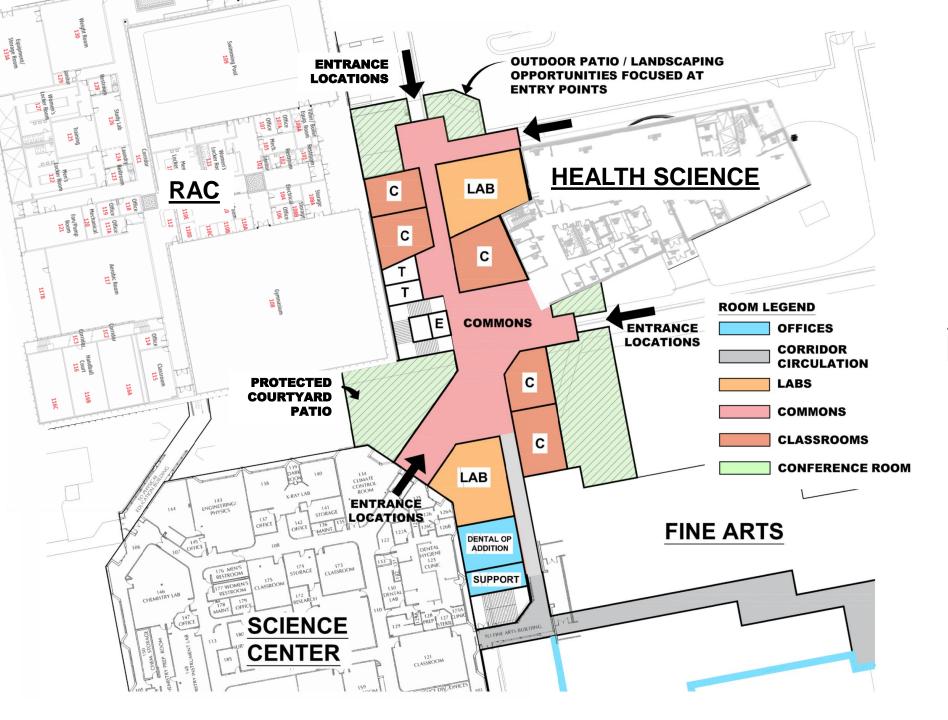






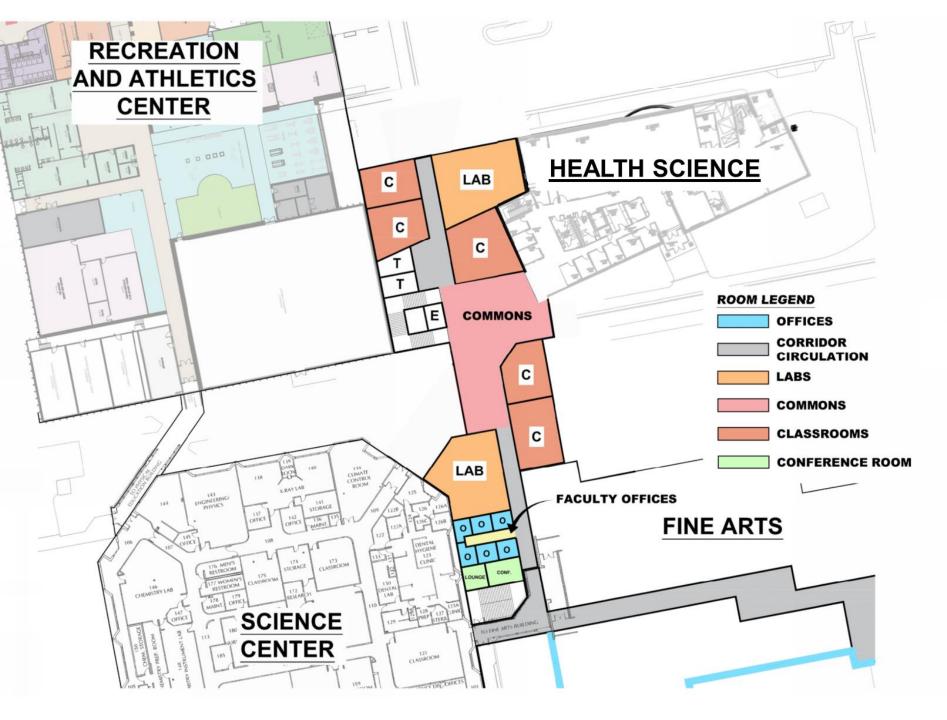






1ST FLOOR
SCALE: NTS 19,500 SF

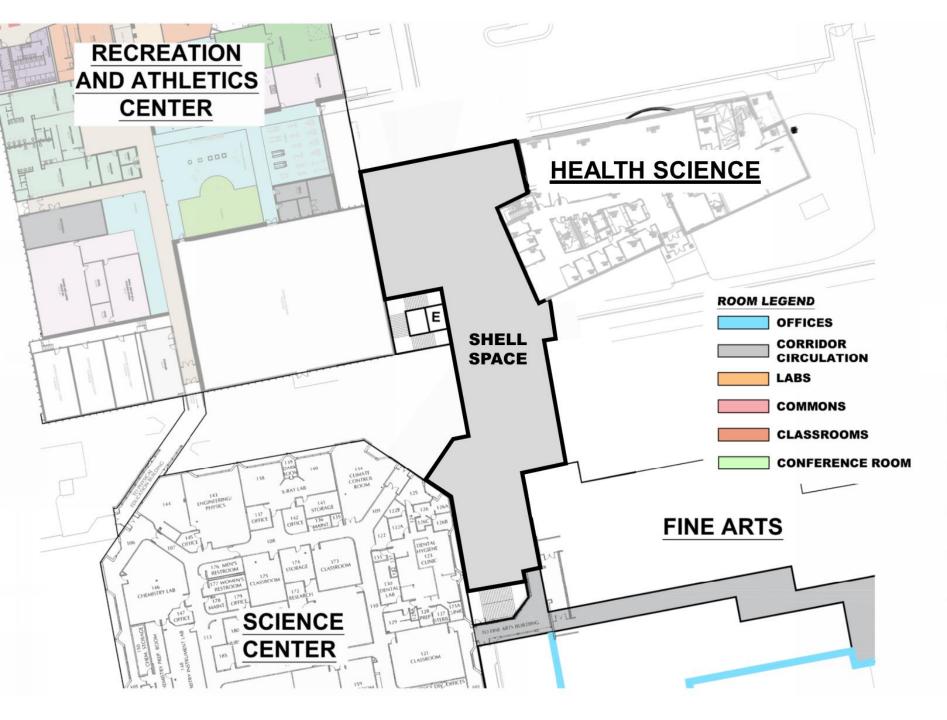
HEALTH SCIENCES OPTION 2 SOUTHWEST INFILL ADDITION



2ND FLOOR
SCALE: NTS 13,500 SF

HEALTH SCIENCES OPTION 2 SOUTHWEST INFILL ADDITION

NOTE: PROGRAM NEEDS CAN BE MET WITH 1ST AND 2ND FLOORS ONLY. 3RD FLOOR COULD BE DELETED OR SHELLED.



3RD LEVEL

▲ OPTIONAL SHELL SPACE

SCALE: NTS 13,500 SF

HEALTH SCIENCES OPTION 2 SOUTHWEST INFILL ADDITION

NOTE: PROGRAM NEEDS CAN BE MET WITH 1ST AND 2ND FLOORS ONLY. 3RD FLOOR COULD BE DELETED OR SHELLED.



