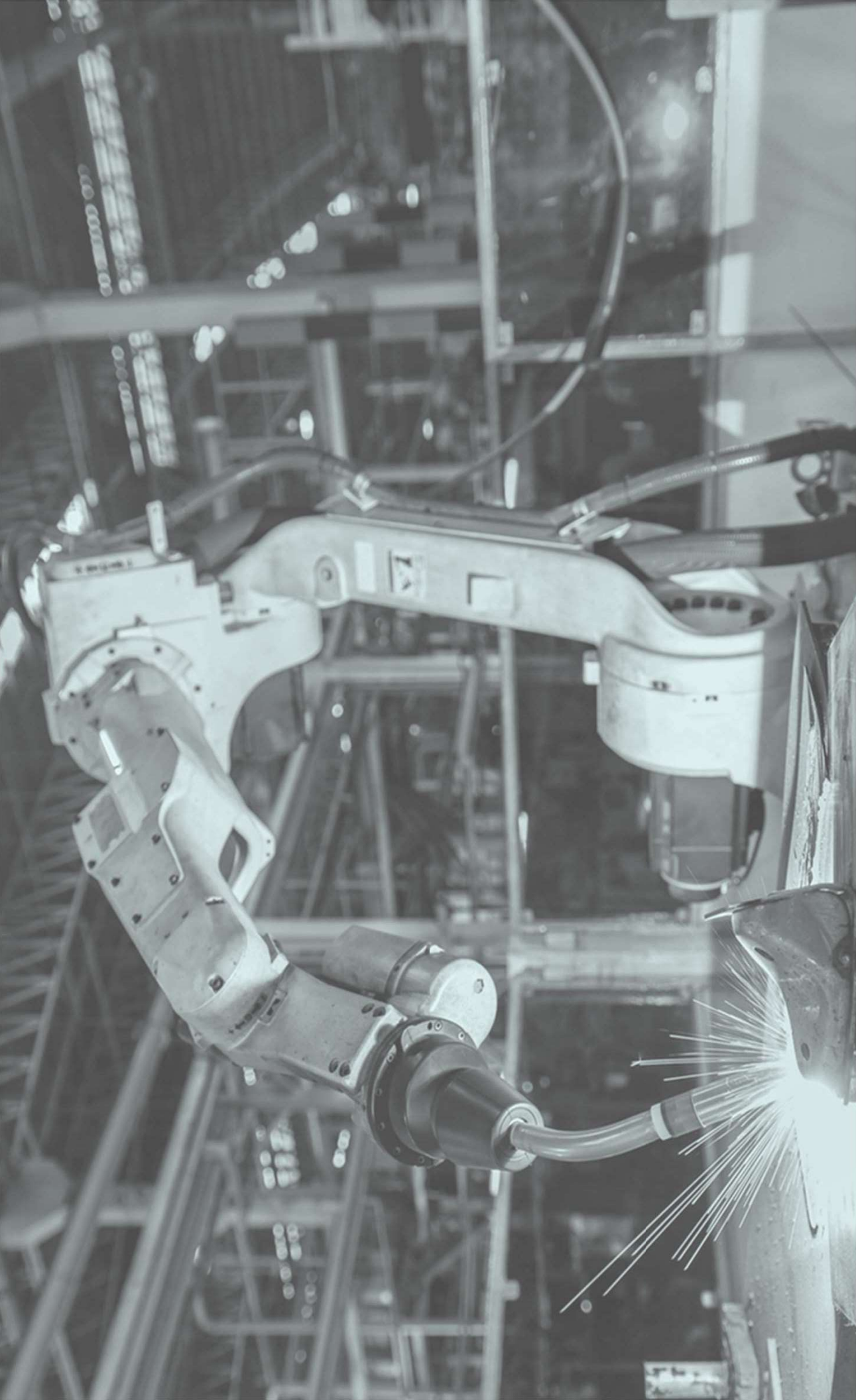


Mobilizing Tomorrow's Workforce

Advancements and Trends in CTE Facility Design

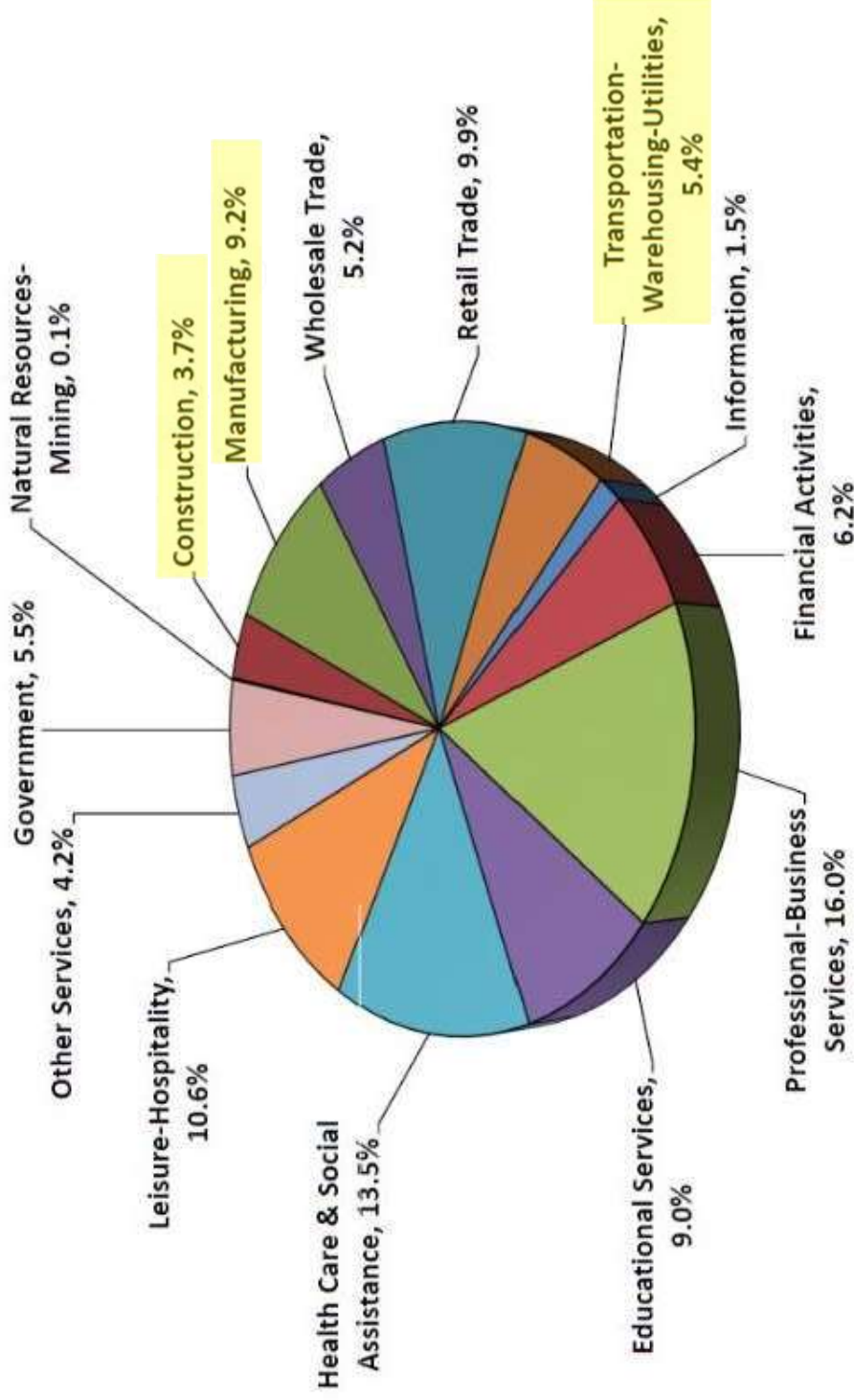


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Chief Financial Officers

STATE OF ILLINOIS

INDUSTRY EMPLOYMENT PROJECTIONS TO 2026



Professional-Business Services, Health Care & Social Assistance, Leisure-Hospitality, Retail Trade, and Manufacturing are projected to be the largest employing industries in 2026. The largest expansion will be in Professional-Business Services and Leisure-Hospitality, with projected employment growth of 177,000.

RECENT ILLINOIS COMMUNITY COLLEGE CTE PROJECTS

UPGRADE | RE-PURPOSE | NEW CONSTRUCTION

LINCOLN LAND COMMUNITY COLLEGE

Workforce Careers Center
Completed: 2010

ILLINOIS VALLEY COMMUNITY COLLEGE

Community Technology Center
Completed: 2012

MORAIN VALLEY COMMUNITY COLLEGE

Technology Center Renovations
Completed: 2012

KANKAKEE COMMUNITY COLLEGE

Manufacturing & Industrial Technology Center
Completed: 2014

WAUBONSEE COMMUNITY COLLEGE

Piano Campus Re-Invention
Completed: 2020

MORTON COLLEGE

Welding Lab Upgrades
Completed: 2021

KANKAKEE COMMUNITY COLLEGE

Technology Center Renovations
Completed: 2022

ILLINOIS CENTRAL COLLEGE

Workforce Sustainability Center
Completed: 2023 (est.)

MCHENRY COUNTY COLLEGE

Center for Advanced Technology & Innovation
Completed: 2024 (est.)

WAUBONSEE COMMUNITY COLLEGE

New CTE Facility
Completed: TBD

BLACK HAWK COLLEGE

CTE Planning Study
Completed: N/A

ILLINOIS CENTRAL COLLEGE

Manufacturing Training Academy
Completed: N/A

EQUIPMENT – DRIVEN DESIGN

EQUIPMENT SIZE

SAFETY ISSUES

INFRASTRUCTURE NEEDS

Welding Lab											
Item #	Item	Quantity	New	Existing	Manufacturer	Model No.	Length	Width	Height	Unit Price	Total Price
100	Self-Contained Welding Booths	8	X		Clean Air America	Weldstation LEAF Dual	41	116	124	\$12,000.00	\$ 96,000.00
101	SMAW / GTAW Welders	16	X		Lincoln	(Lin) K2618-1	26	22	31	\$5,700.00	\$ 91,200.00
101	SMAW / GTAW Welder Spare	1	X		Lincoln	(Lin) K2618-1	26	22	31	\$5,700.00	\$ 5,700.00
102	GMAW Welders	16	X		Lincoln	K3520-1	40	18	37.3	\$2,800.00	\$ 44,800.00
103	NOT USED					TBD					
104	GMAW Welders	1	X		Lincoln	K4023-1	39	19	31.8	\$2,800.00	\$ 2,800.00
105	Oxy-Acetylene Torch Sets	17	X		Victor	TBD				\$400.00	\$ 6,800.00
106	Tungsten Grinder / Vacuum	1	X		Diamond Ground	DPG-1-V2	36	36	52	\$2,800.00	\$ 2,800.00
107	Pipe Beveler	2	X		E. H. Wachs	206	19	12	28	\$7,800.00	\$ 15,600.00
108	Metal Shear / Iron Worker	1	X		Kalamazoo	70 ton	74	48	68	\$25,000.00	\$ 25,000.00
109	Air Compressor	1	X		Kaeser Compressor	M460 - 59 CFM @160 PSI				\$8,000.00	\$ 8,000.00
110	Direct Pressure Blast Cabinet	1	X		Econoline	TBD	48	38	?	\$5,500.00	\$ 5,500.00
111	Downdraft grinding table	2	X		Denray	3648G	36	48		\$6,500.00	\$ 13,000.00
112	Adjustable steel stools	18	X		McMaster Carr Cat.	4833T42		13	29	\$250.00	\$ 4,500.00
113	Bench Grinders	2	X		Baldor 10 in. dust collector	Paxton Paterson Cat.				\$2,000.00	\$ 4,000.00
114	Robotic Arc Trainer	1	X		Lincoln	AD2446-2	70.2	68.2	94.2	\$70,000.00	\$ 70,000.00
115	Plasma Arc Cutter	1	X		Lincoln	Tomahawk 1500 (K2809-1)	25.4	11.8	17.9	\$2,000.00	\$ 2,000.00
115A	Metal Table for 115	1	X			TBD					
116	Metal Portable Mechanical Beveler	1	X		Trumpf	TBD				\$2,000.00	\$ 2,000.00
116A	Table for 116	1	X			TBD					
117	Weld Watch Video System for Demo	1	X		Weld Vision	V2019-edu				\$15,000.00	\$ 15,000.00
118	Steel Shelves welded	6	X		32x72x18	McMaster Carr 7673T15	32	18	72	\$375.00	\$ 2,250.00
119	Welding Helmets	20	X		Weldmark	BF8VVS9-13				\$200.00	\$ 4,000.00
120	Misc. tools	1	X		Hand Tools, etc. to go in cabinets	TBD				\$5,000.00	\$ 5,000.00
121	Heavy Duty Steel carts	2	X		McMaster Carr	2204T16	30	18	35	\$500.00	\$ 1,000.00
122	Heavy Duty Steel carts	3	X		McMaster Carr	2826T52	24	36	30	\$314.75	\$ 944.25
123	Steel cabinets fork capable	1	X		Grainger / Mcmaster	TBD				\$3,000.00	\$ 3,000.00
124	Metal storage racks	2	X		TBD	TBD				\$1,000.00	\$ 2,000.00
125	Tool carts (bench height tool cabinets)	2	X		TBD	TBD				\$750.00	\$ 1,500.00
126	Heavy duty drawer cabinets	2	X		McMaster Carr	TBD				\$500.00	\$ 1,000.00
127	Safety items, screens etc.	1	X		TBD (see note below)	TBD				\$2,500.00	\$ 2,500.00
128	Storage shelving	3	X		McMaster Carr	7673T16	36	24	72	\$430.00	\$ 1,290.00
129	Forklift	1	X		Hyster (Alfa Equipment Company)	E30-40XN	127	40	88.5	\$15,000.00	\$ 15,000.00
130	Large Metal Layout Table	3	X		TBD	TBD	72	48	30"		
										\$	454,184.25

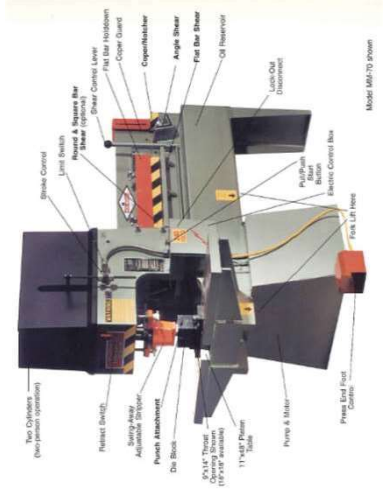
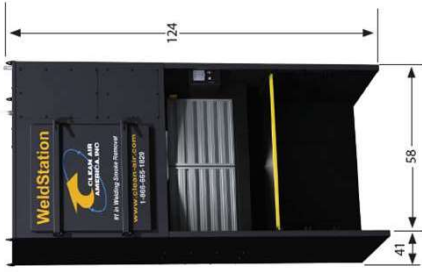


EQUIPMENT – DRIVEN DESIGN

EQUIPMENT SIZE

SAFETY ISSUES

INFRASTRUCTURE NEEDS



100
WELDING BOOTH
WXDXH: 58 X 41 X 72 in

108
METAL SHEAR/ IRON WORKER
WXDXH: 74 X 48 X 68 in



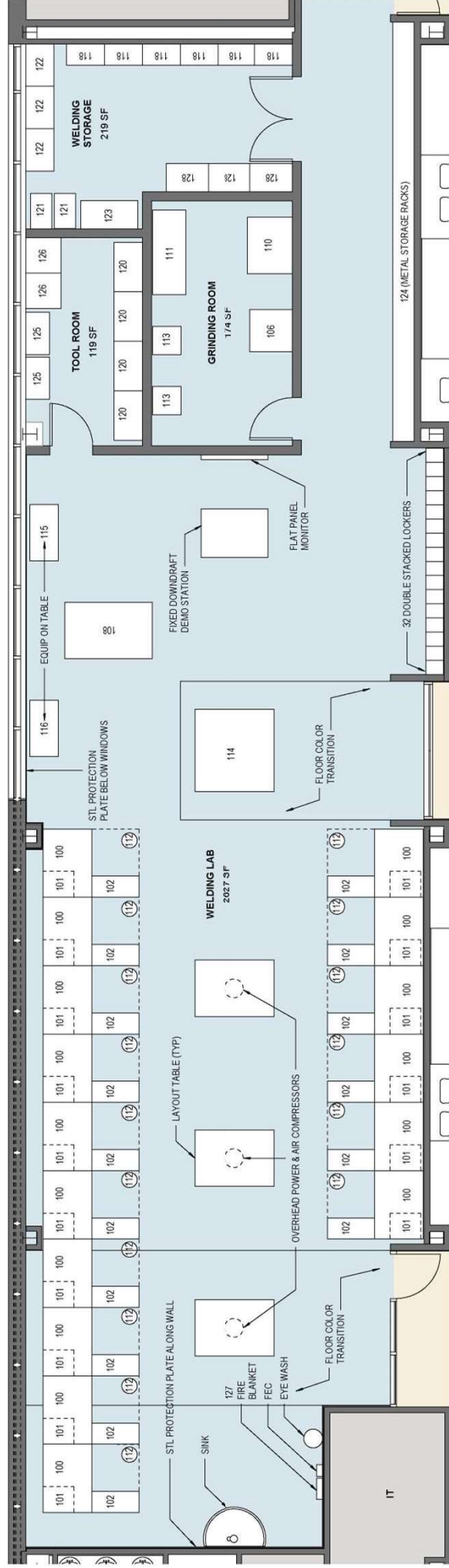
114
ROBOTIC ARC TRAINER
WXDXH: 74 X 48 X 68 in



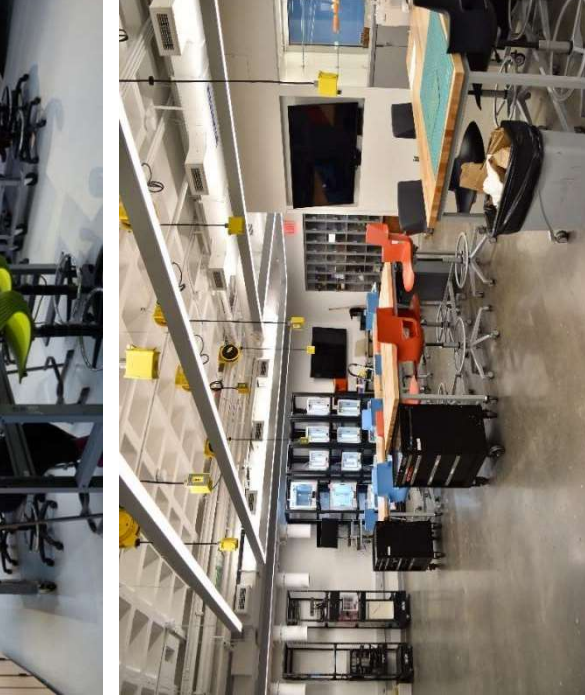
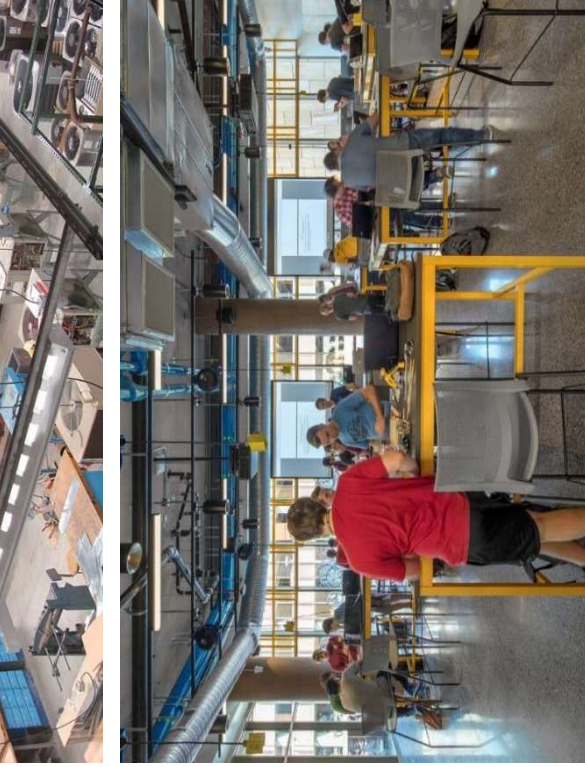
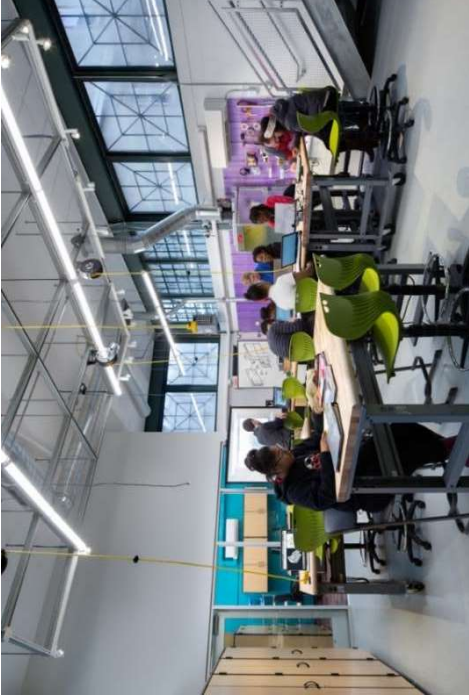
115
PLASMA ARC CUTTER
WXDXH: 19 X 9 X 15 in



102
GMAW Welder
WXDXH: 40 X 18 X 37 in



FLEXIBILITY | ADAPTABILITY | MOBILITY



Flexible **POWER** for new equipment
Adaptable **HVAC** Systems
Robust **TECHNOLOGY**

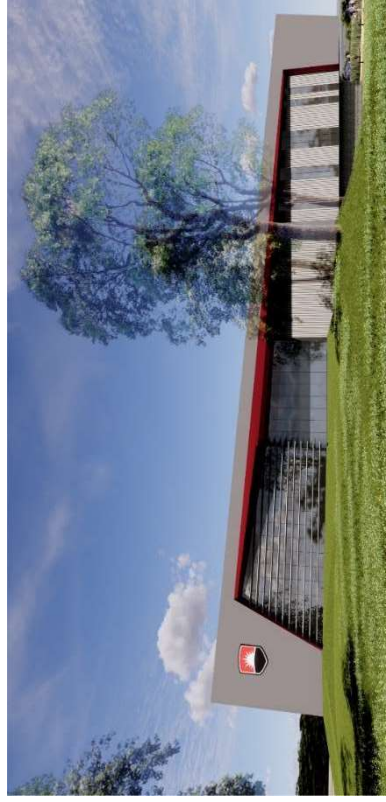
Infrastructure needs to adapt to
ever-changing equipment



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CELEBRATION OF CTE PROGRAMS ON CAMPUS





UPGRADE EXISTING CTE FACILITIES



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MORaine VALLEY COMMUNITY COLLEGE

TECHNOLOGY CENTER RENOVATIONS

NEW FLOOR PLAN

Cybersecurity

Networking

Manufacturing

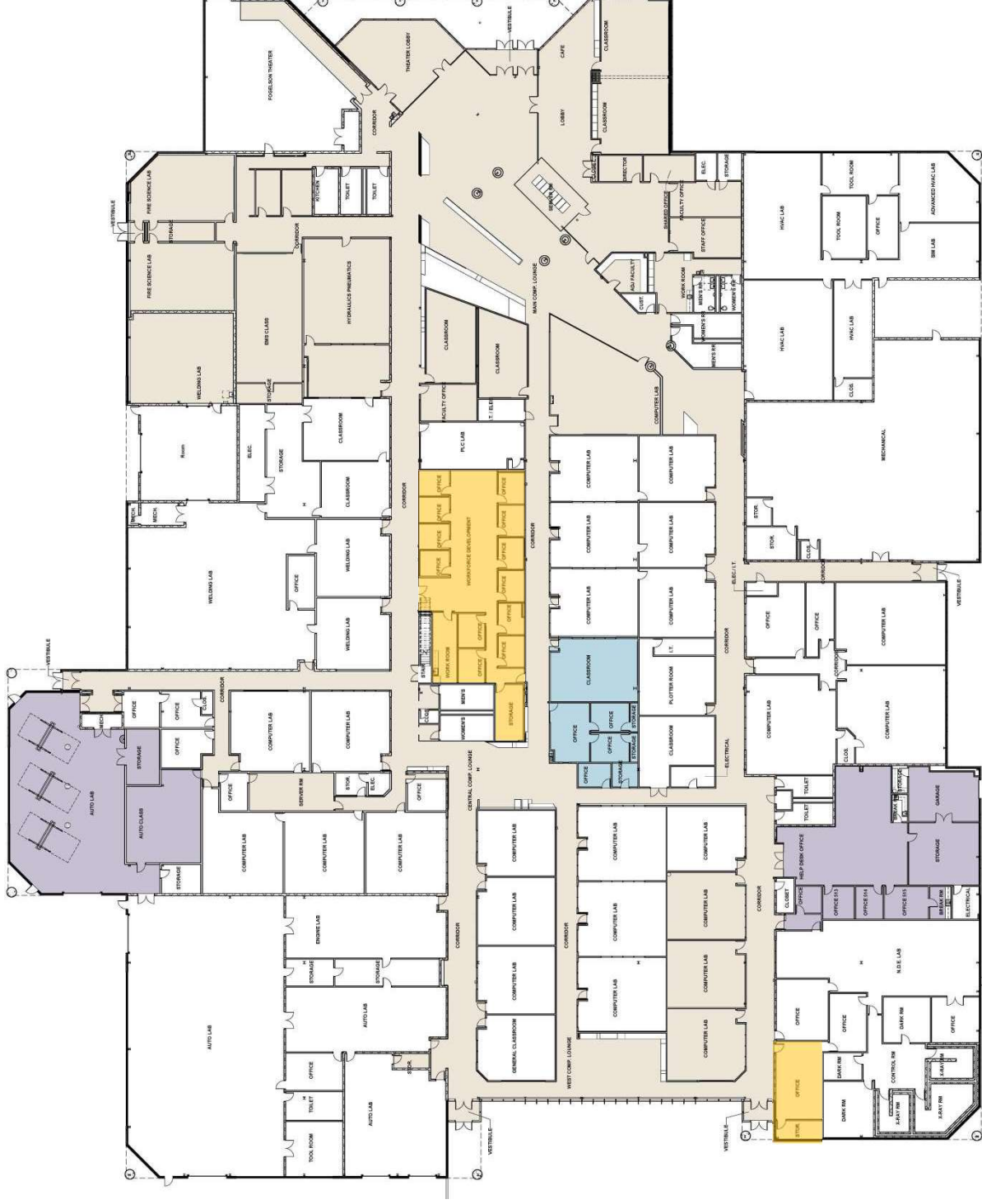
Automotive

Welding

Fire Science

EMS

ITS HELP
DESK



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TECHNOLOGY CENTER RENOVATIONS

PREVIOUS VIEW AT MAIN ENTRANCE



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MORAIN VALLEY COMMUNITY COLLEGE

TECHNOLOGY CENTER RENOVATIONS

CURRENT VIEW AT MAIN ENTRANCE

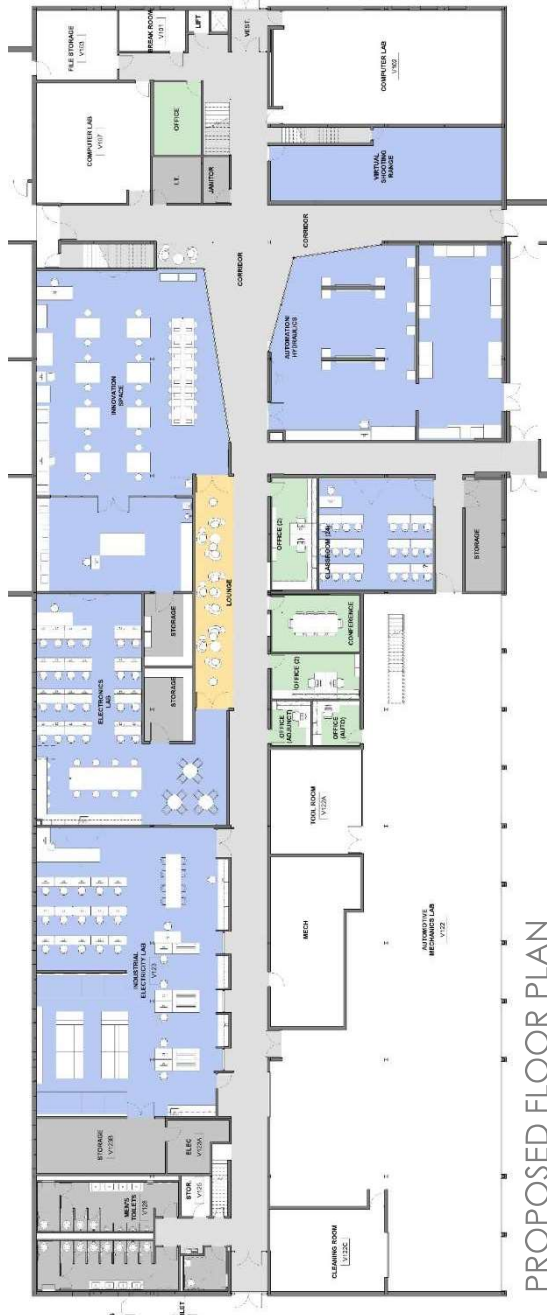


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KANKAKEE COMMUNITY COLLEGE
TECHNOLOGY CENTER RENOVATIONS

FLOOR PLANS



Industrial Electricity

Electronics

Innovation Space

Automation / Hydraulics

Automotive

Criminal Justice

E-Sports



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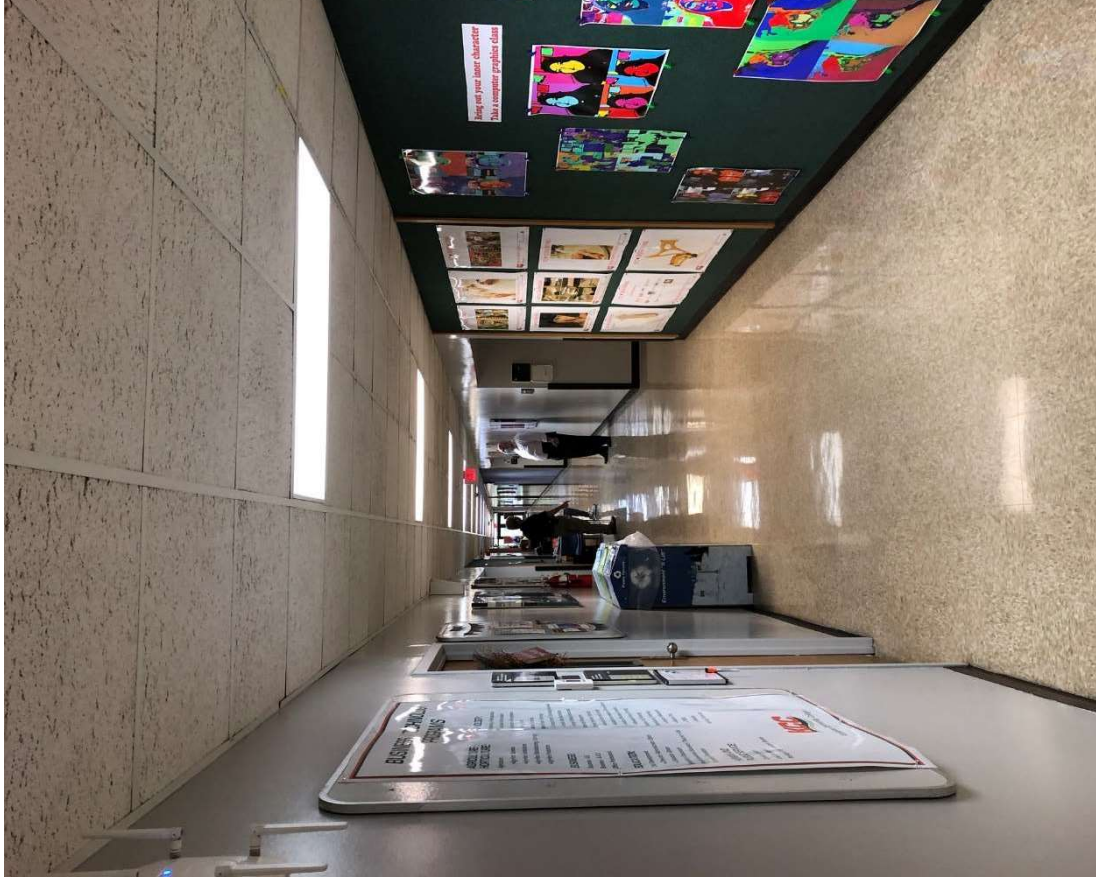
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KANKAKEE COMMUNITY COLLEGE TECHNOLOGY CENTER RENOVATIONS

EXISTING CORRIDOR



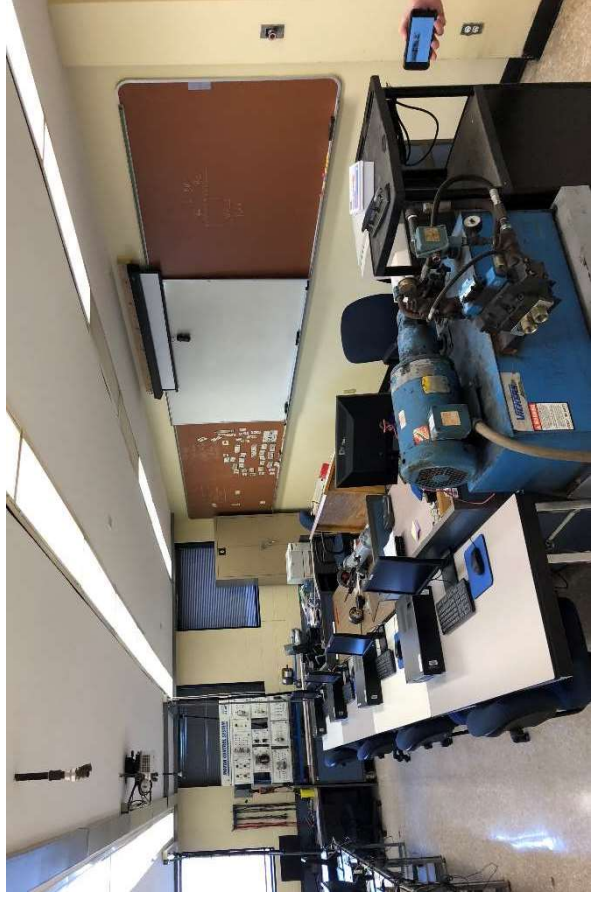
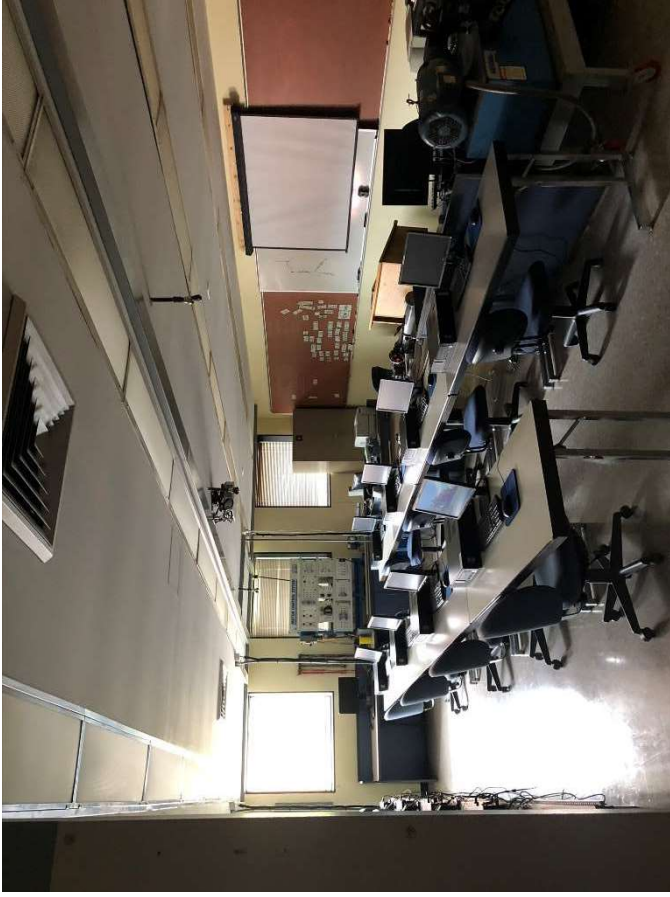
VIEW LOOKING NORTHWEST AT CORRIDOR INTERSECTION



VIEW LOOKING WEST AT EAST-WEST CORRIDOR

KANKAKEE COMMUNITY COLLEGE
TECHNOLOGY CENTER RENOVATIONS

EXISTING LAB SPACE



KANKAKEE COMMUNITY COLLEGE
TECHNOLOGY CENTER RENOVATIONS

PROPOSED CORRIDOR



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KANKAKEE COMMUNITY COLLEGE
TECHNOLOGY CENTER RENOVATIONS

PROPOSED CORRIDOR



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A grayscale photograph of an industrial robotic arm in a factory setting. The arm is positioned vertically, and its end effector is a welding torch that is actively welding a metal surface, creating a bright, starburst-like spray of sparks. The background is filled with the complex, repetitive structures of a manufacturing plant, including metal beams and overhead lighting fixtures, all rendered in a soft, out-of-focus manner.

RE-PURPOSE EXISTING FACILITIES

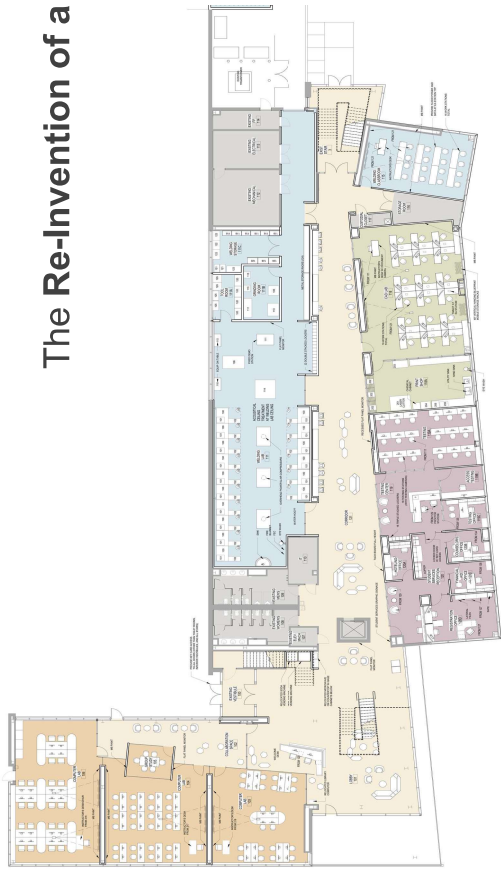
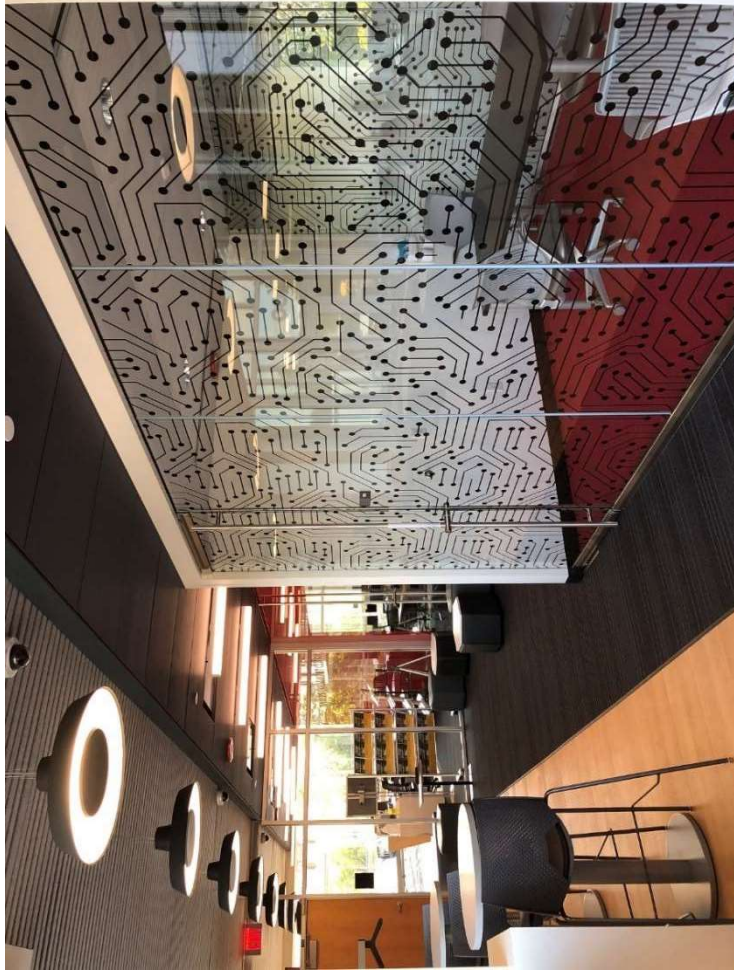
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WAUBONSEE COMMUNITY COLLEGE

PLANO CAMPUS RE-INVENTION



The Re-Invention of a Classroom Building into a CTE Facility

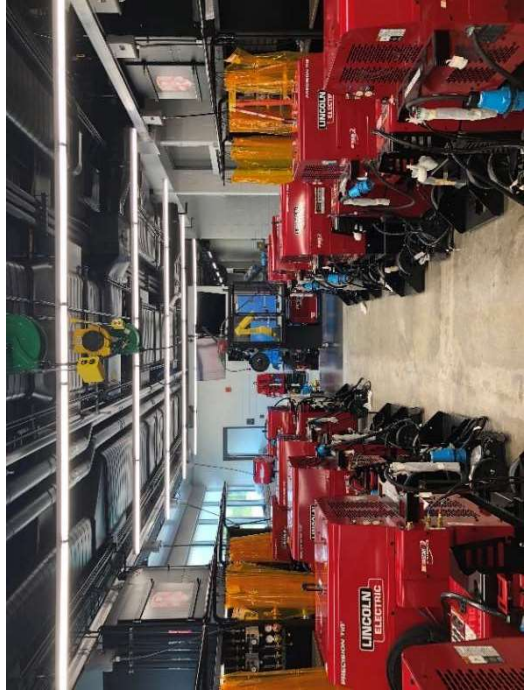
32,840 SF Facility

Cyber Security

Automation Lab

Welding / Robotics

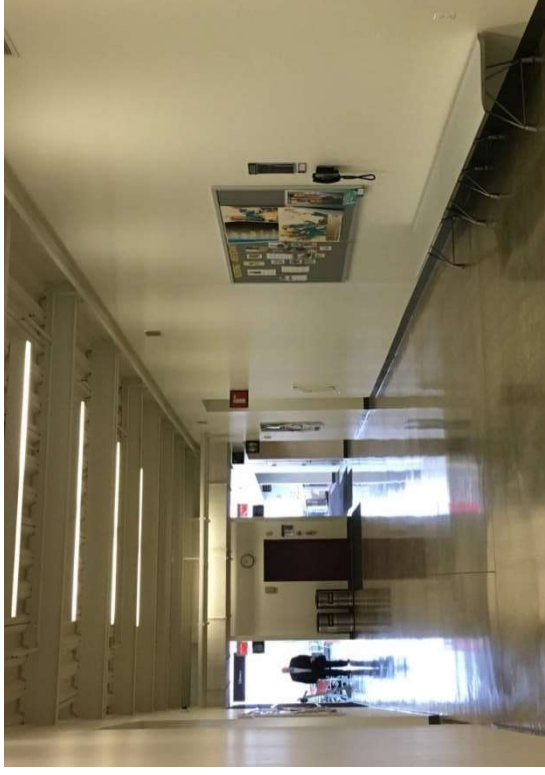
CAD Lab



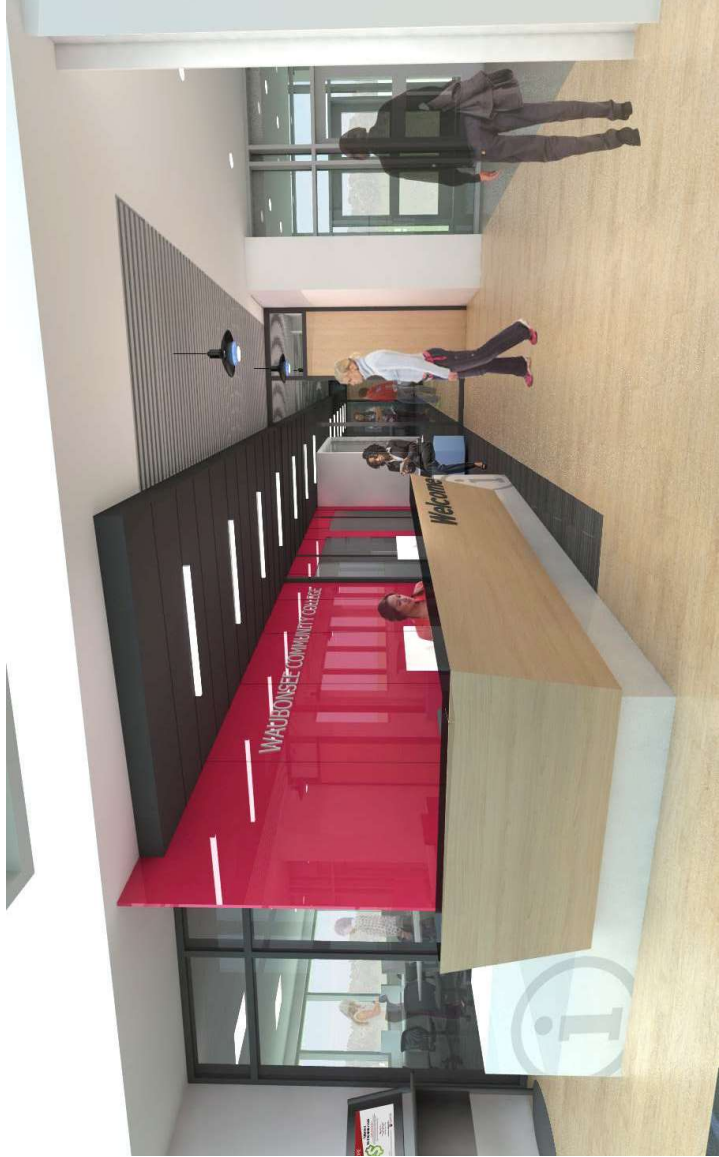
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WAUBONSEE COMMUNITY COLLEGE PLANO CAMPUS RE-INVENTION



Before



After



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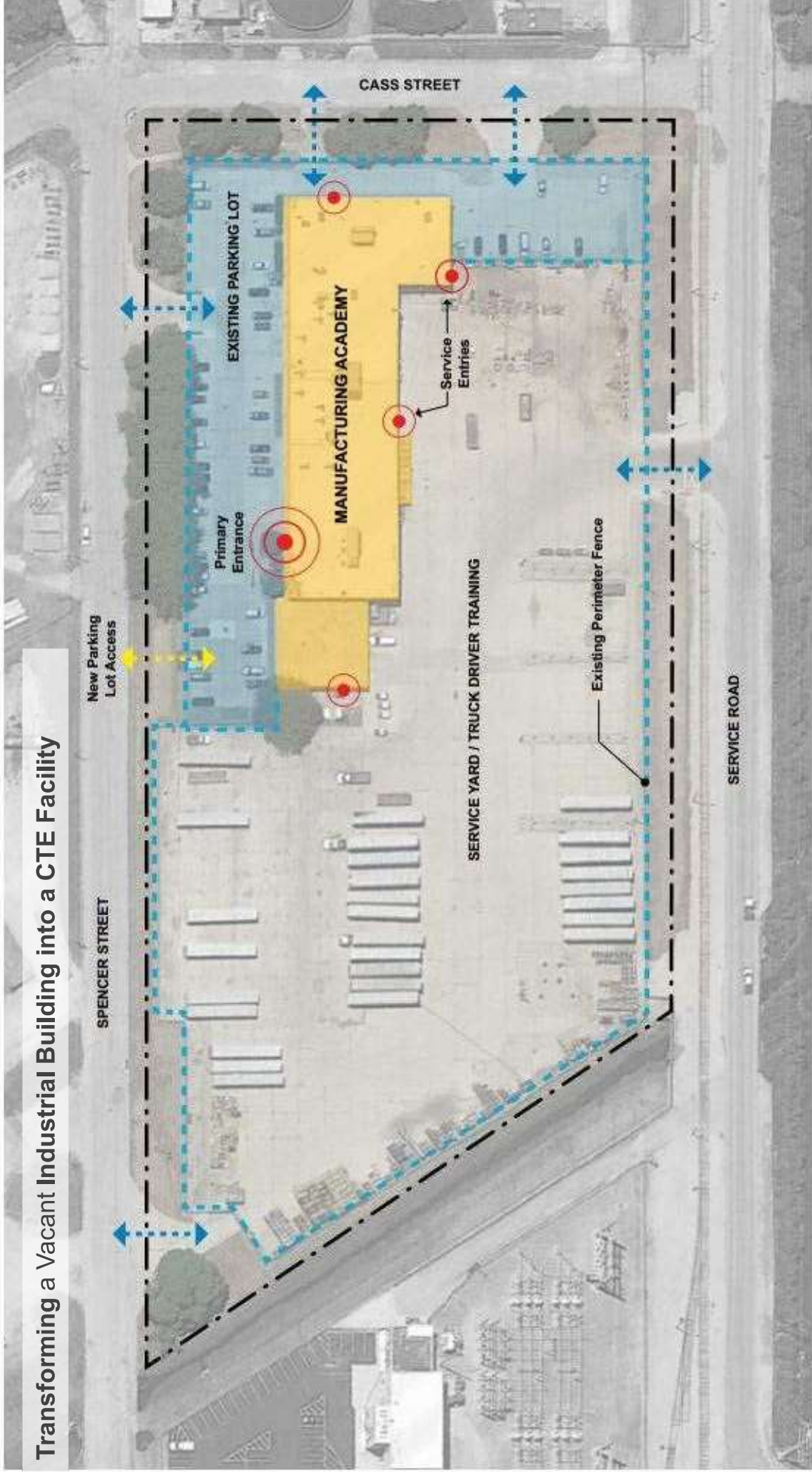
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ILLINOIS CENTRAL COLLEGE

MANUFACTURING TRAINING ACADEMY

SITE PLAN

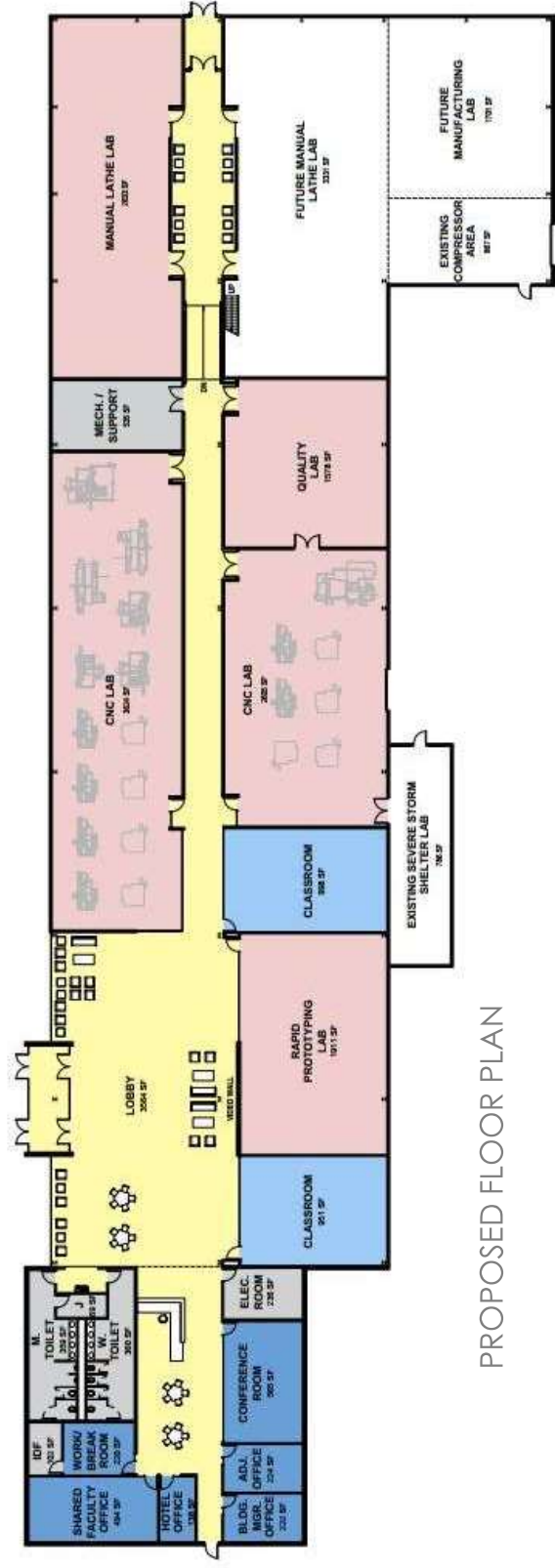
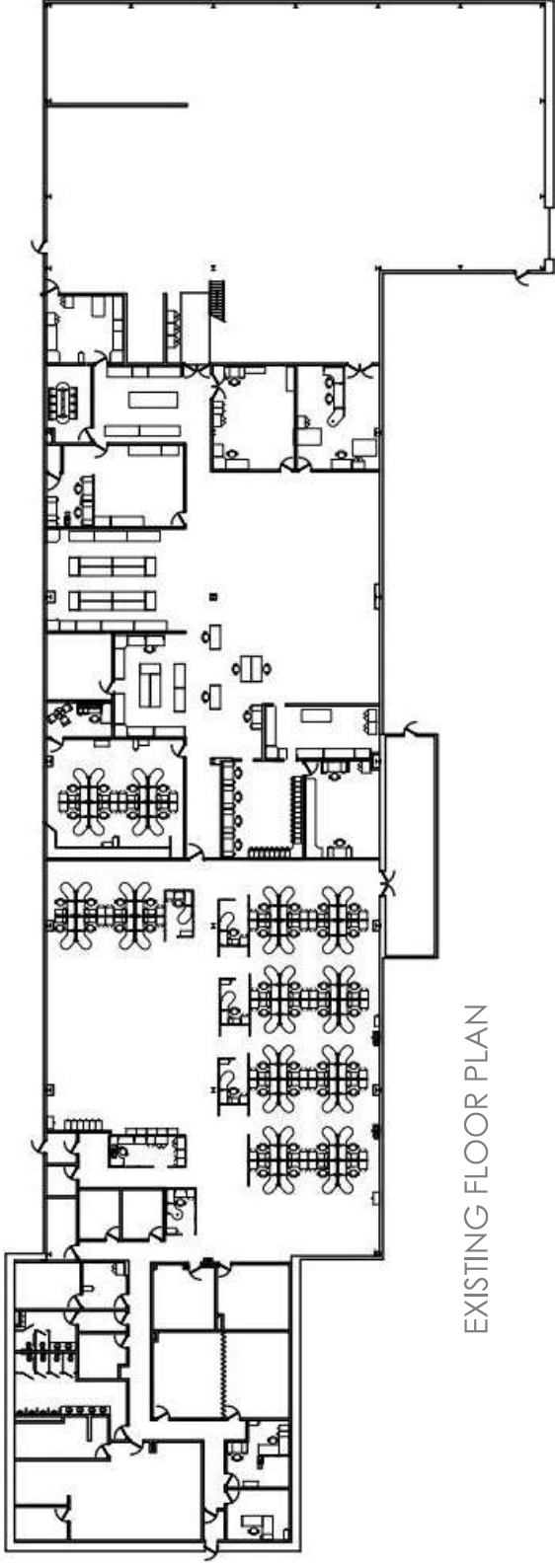
Transforming a Vacant Industrial Building into a CTE Facility



ILLINOIS CENTRAL COLLEGE

MANUFACTURING TRAINING ACADEMY

FLOOR PLAN



33,000 SF Facility

CNC Labs

Manual Lathe Lab

Quality Lab

Rapid Prototyping Lab

Maker Space

Classrooms / Computers

Office Space



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ILLINOIS CENTRAL COLLEGE

MANUFACTURING TRAINING ACADEMY

EXISTING EXTERIOR VIEW



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ILLINOIS CENTRAL COLLEGE

MANUFACTURING TRAINING ACADEMY

PROPOSED EXTERIOR VIEW



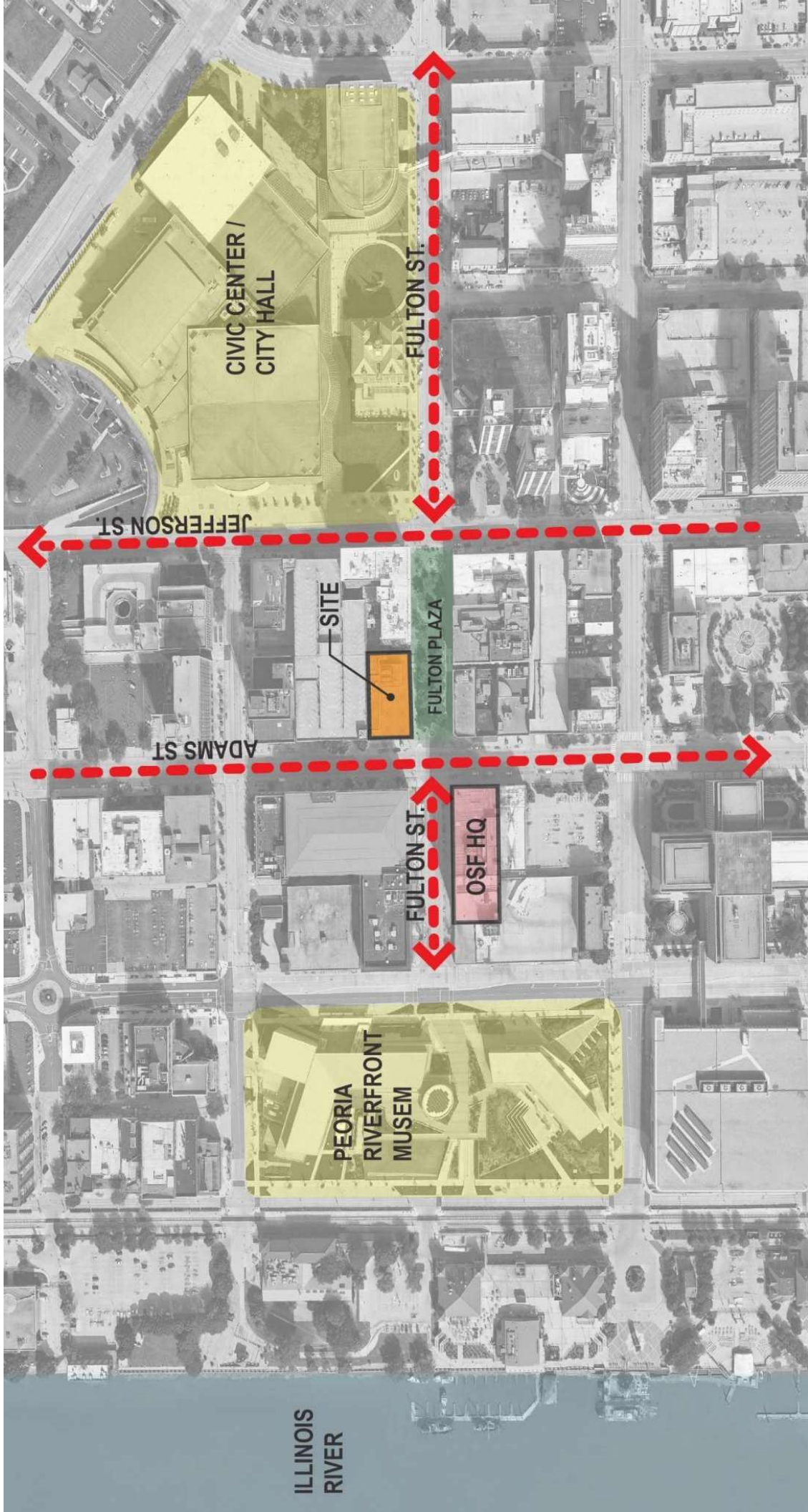
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Distillery Labs

PEORIA INNOVATION HUB

SITE LOCATION



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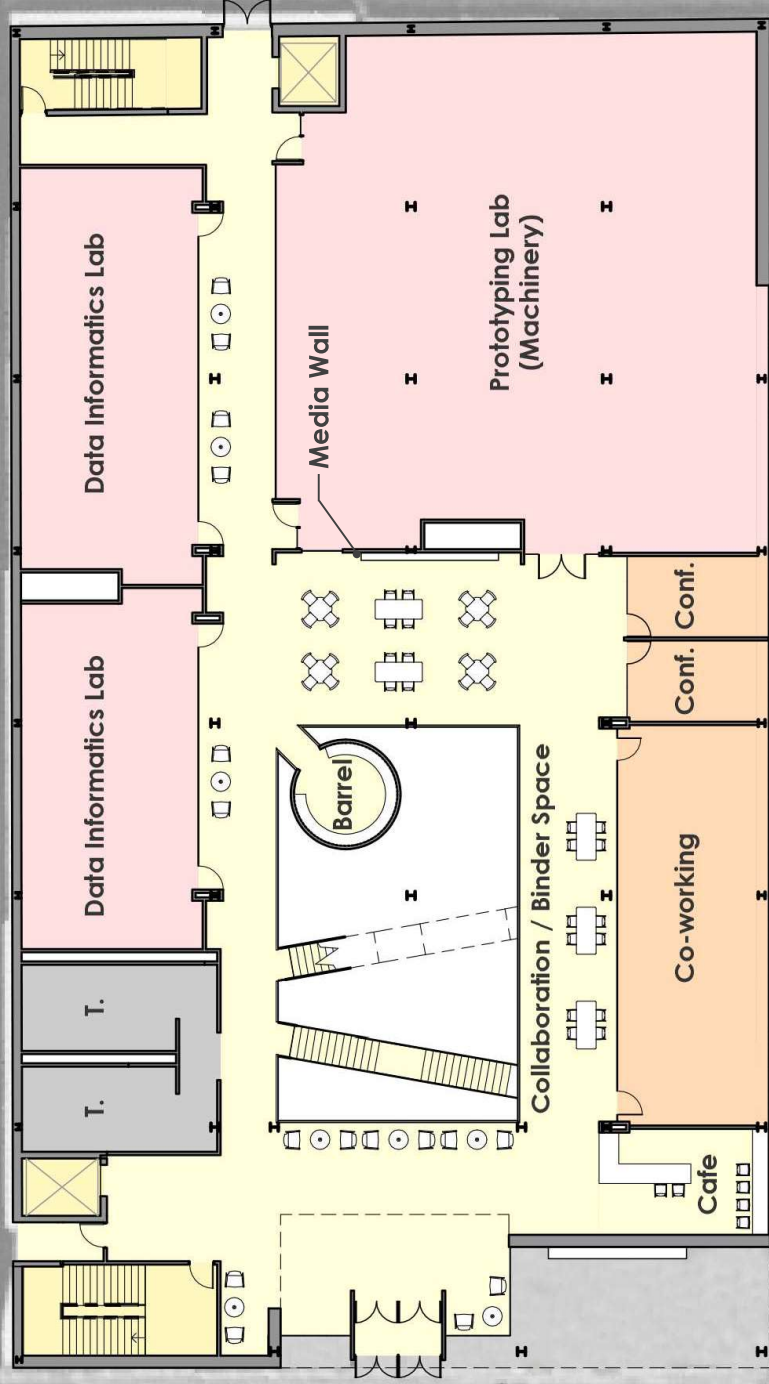
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Distillery Labs

PEORIA INNOVATION HUB

FLOOR PLAN

Fostering Entrepreneurship, Innovation & Invention through local Collaboration & Partnerships



- Prototyping Lab
- Incubator Space
- Data Informatics Lab
- Digital Makerspace
- Co-Working Spaces
- Collaboration Zones
- Urban Gardening
- Classrooms / Computers



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Distillery Labs

PEORIA INNOVATION HUB

EXISTING EXTERIOR VIEW



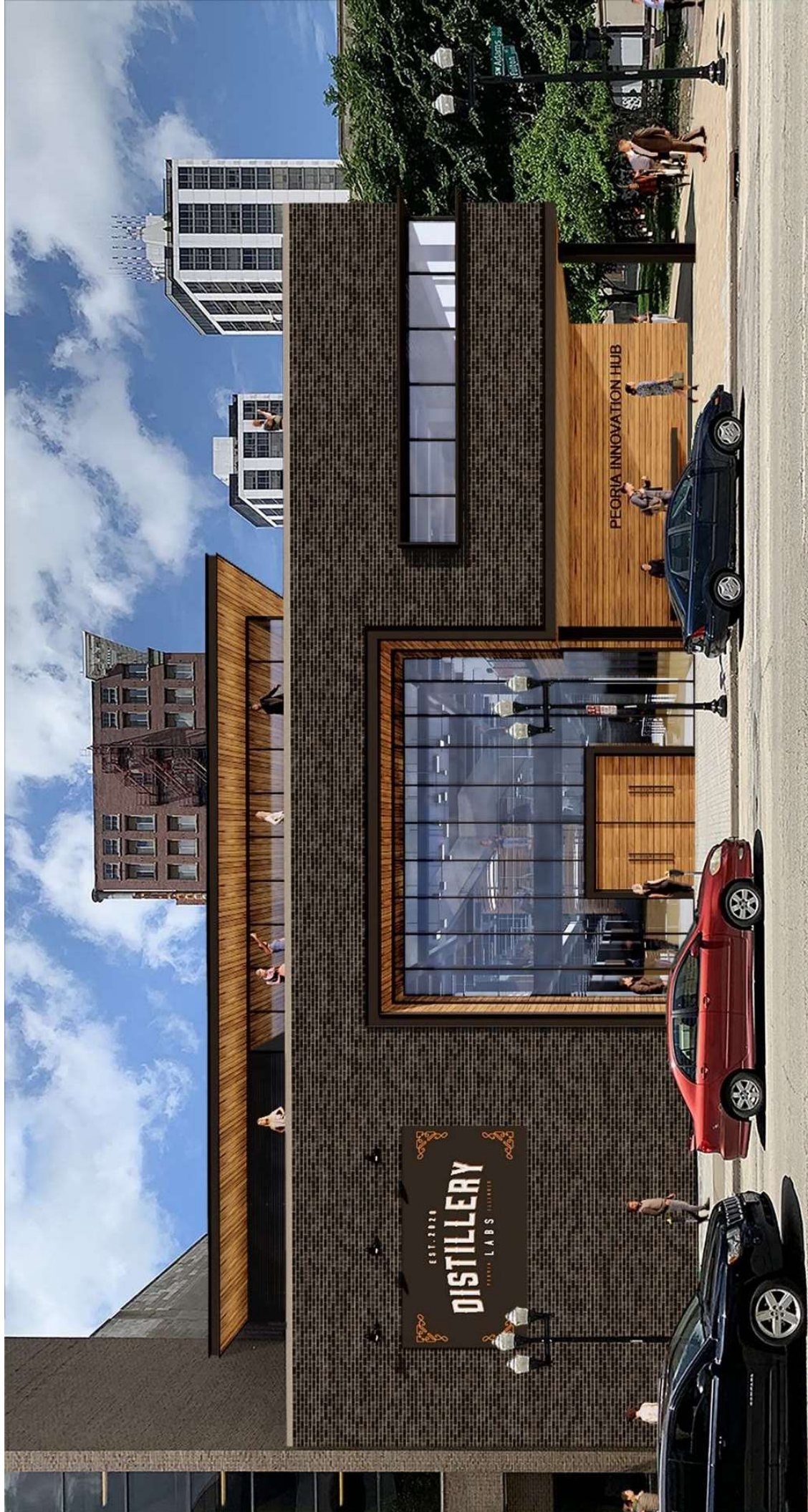
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Distillery Labs

PEORIA INNOVATION HUB

PROPOSED EXTERIOR VIEW



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Distillery Labs

PEORIA INNOVATION HUB

PROPOSED INTERIOR VIEW



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NEW CTE FACILITIES



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WAUBONSEE COMMUNITY COLLEGE

NEW CAREER & TECHNICAL EDUCATION FACILITY



A Celebration of Career Programs at the Main Entrance to Campus

106,000 SF Facility

- CNC Lab
- Metrology Lab
- Automation Lab
- Welding / Fabrication Lab
- Automotive Technology Lab
- Auto Body Repair Lab
- Exposition Space



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WAUBONSEE COMMUNITY COLLEGE

NEW CAREER & TECHNICAL EDUCATION FACILITY

VIEW FROM CAMPUS ENTRANCE



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MCHENRY COUNTY COLLEGE

CENTER FOR ADVANCED TECHNOLOGY & INNOVATION

CAMPUS / SITE PLAN



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MCHENRY COUNTY COLLEGE

CENTER FOR ADVANCED TECHNOLOGY & INNOVATION

SECOND FLOOR PLAN

Creating Connections between CTE Lab Spaces, Community & Local Industry

52,000 SF Facility

HVAC / Refrigeration

Welding

Manufacturing

Industrial Maintenance

Engineering

Artificial Intelligence

Flex Lab

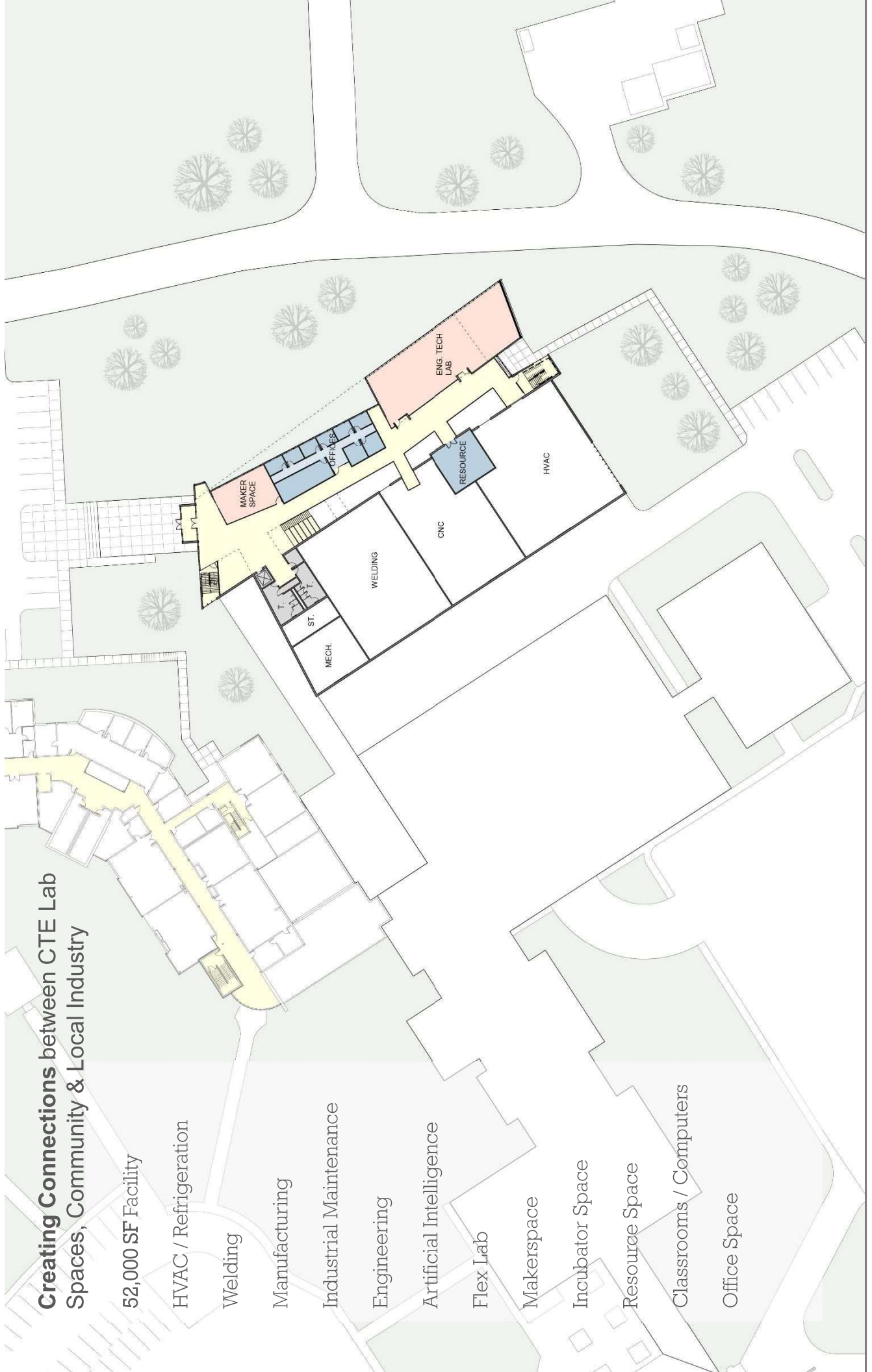
Makerspace

Incubator Space

Resource Space

Classrooms / Computers

Office Space



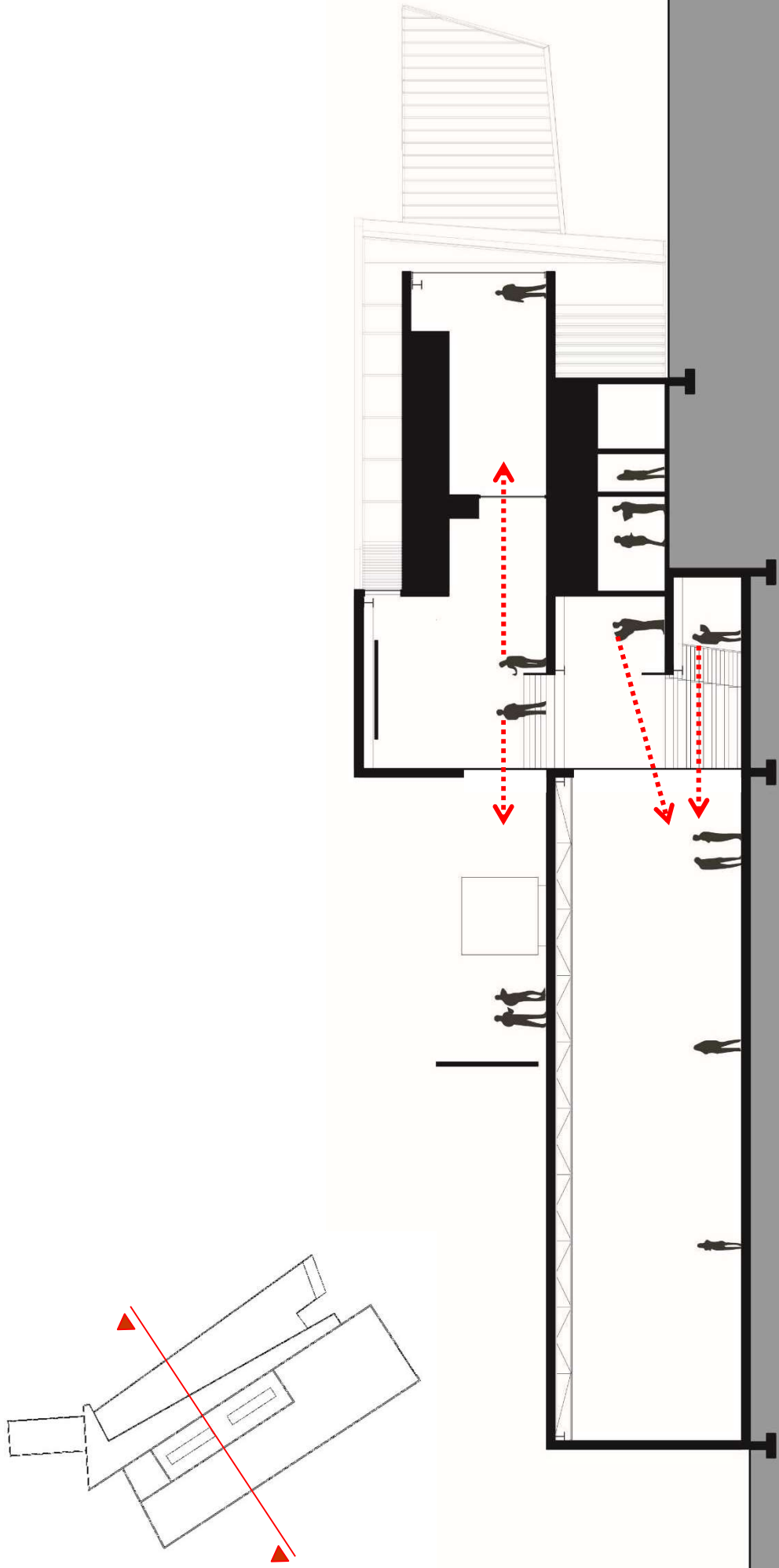
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MCHENRY COUNTY COLLEGE

CENTER FOR ADVANCED TECHNOLOGY & INNOVATION

SECTION THRU BUILDING



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MCHENRY COUNTY COLLEGE

CENTER FOR ADVANCED TECHNOLOGY & INNOVATION

VIEW OF BUILDING ENTRY



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CENTER FOR ADVANCED TECHNOLOGY & INNOVATION

INTERIOR VIEW OF CORRIDOR



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CENTER FOR ADVANCED TECHNOLOGY & INNOVATION

INTERIOR VIEW OF CORRIDOR



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LINCOLN LAND COMMUNITY COLLEGE

WORKFORCE CAREERS CENTER

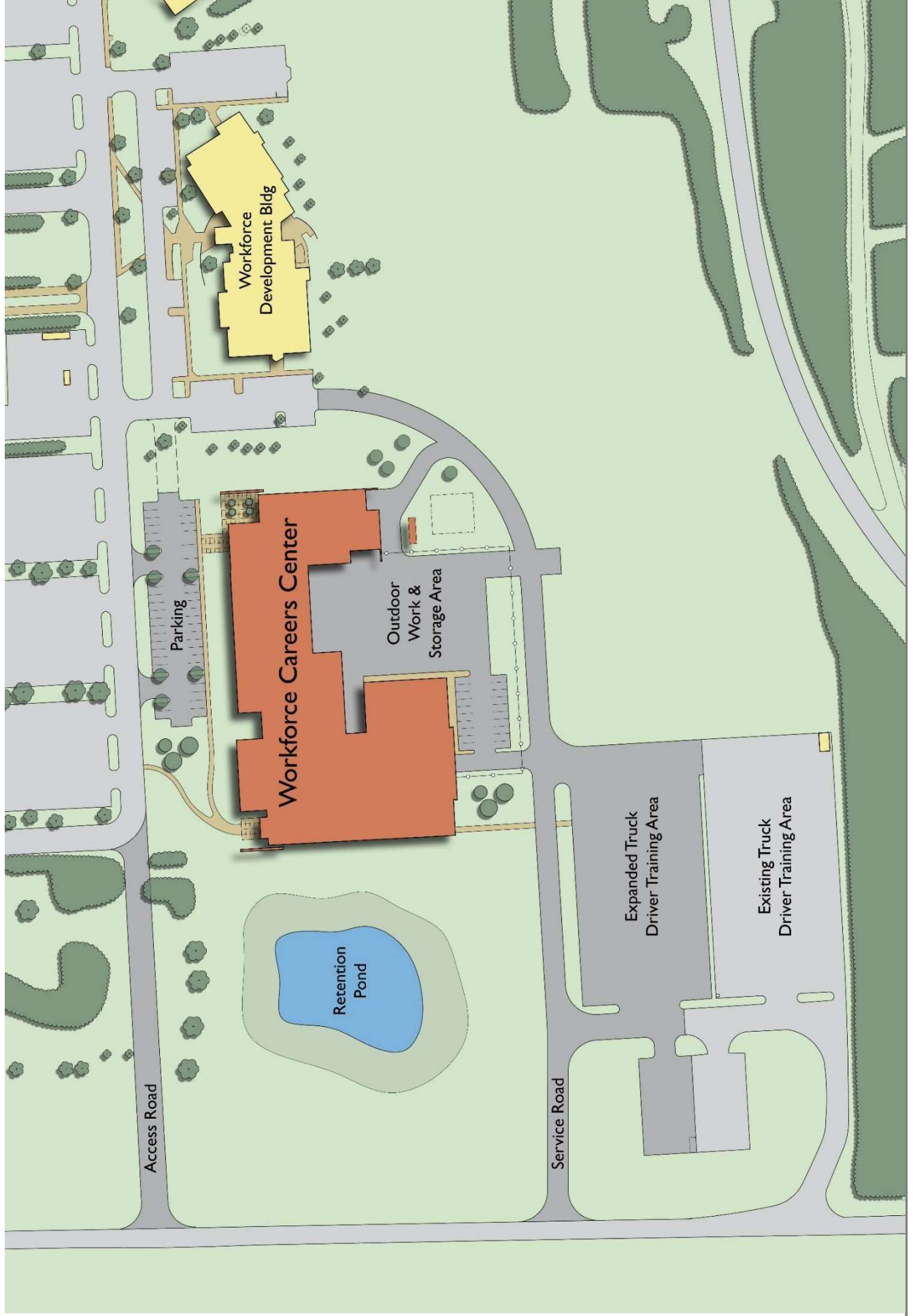
CAMPUS PLAN



LINCOLN LAND COMMUNITY COLLEGE

WORKFORCE CAREERS CENTER

SITE PLAN

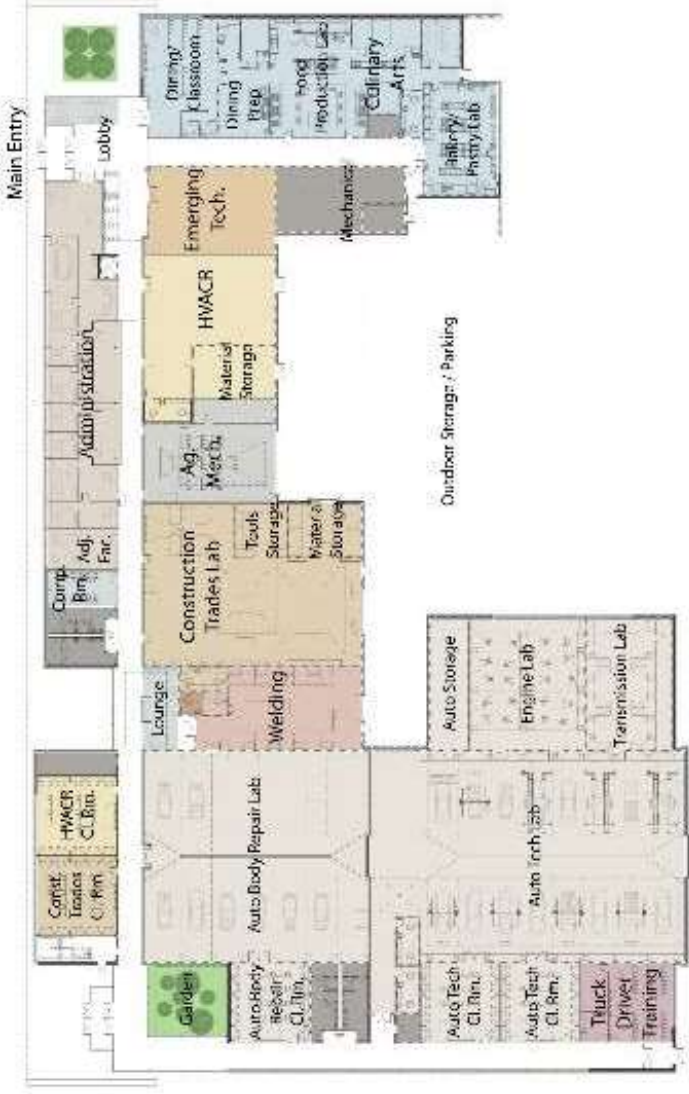


LINCOLN LAND COMMUNITY COLLEGE

WORKFORCE CAREERS CENTER

Long-term flexibility to accommodate the ever-changing needs of CTE programs

- 80,000 SF Facility
- HVAC / Refrigeration
- Welding
- Construction Trades
- Industrial Maintenance
- Sustainable Technologies
- Automotive Technology
- Auto Body Repair



LINCOLN LAND COMMUNITY COLLEGE

WORKFORCE CAREERS CENTER



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ILLINOIS VALLEY COMMUNITY COLLEGE COMMUNITY TECHNOLOGY CENTER



74,000 SF Facility

CNC Lab

(2) Industrial Maintenance Labs

(2) Industrial Electricity Labs

Maker Space

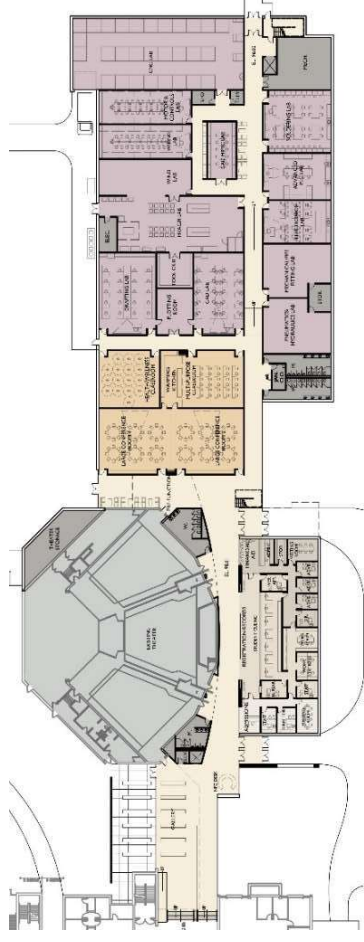
Sustainability Lab

(2) CAD / Drafting Labs

HVAC / Refrigeration Lab



A hands-on CTE building with state-of-the-art facilities / encouraging **community engagement**



ILLINOIS CENTRAL COLLEGE WORKFORCE SUSTAINABILITY CENTER

CAMPUS PLAN



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ILLINOIS CENTRAL COLLEGE

WORKFORCE SUSTAINABILITY CENTER

SITE / FIRST FLOOR PLAN

A Centerpiece for Workforce Development at Illinois Central College

28,400 SF Facility

HVAC/Refrigeration Lab

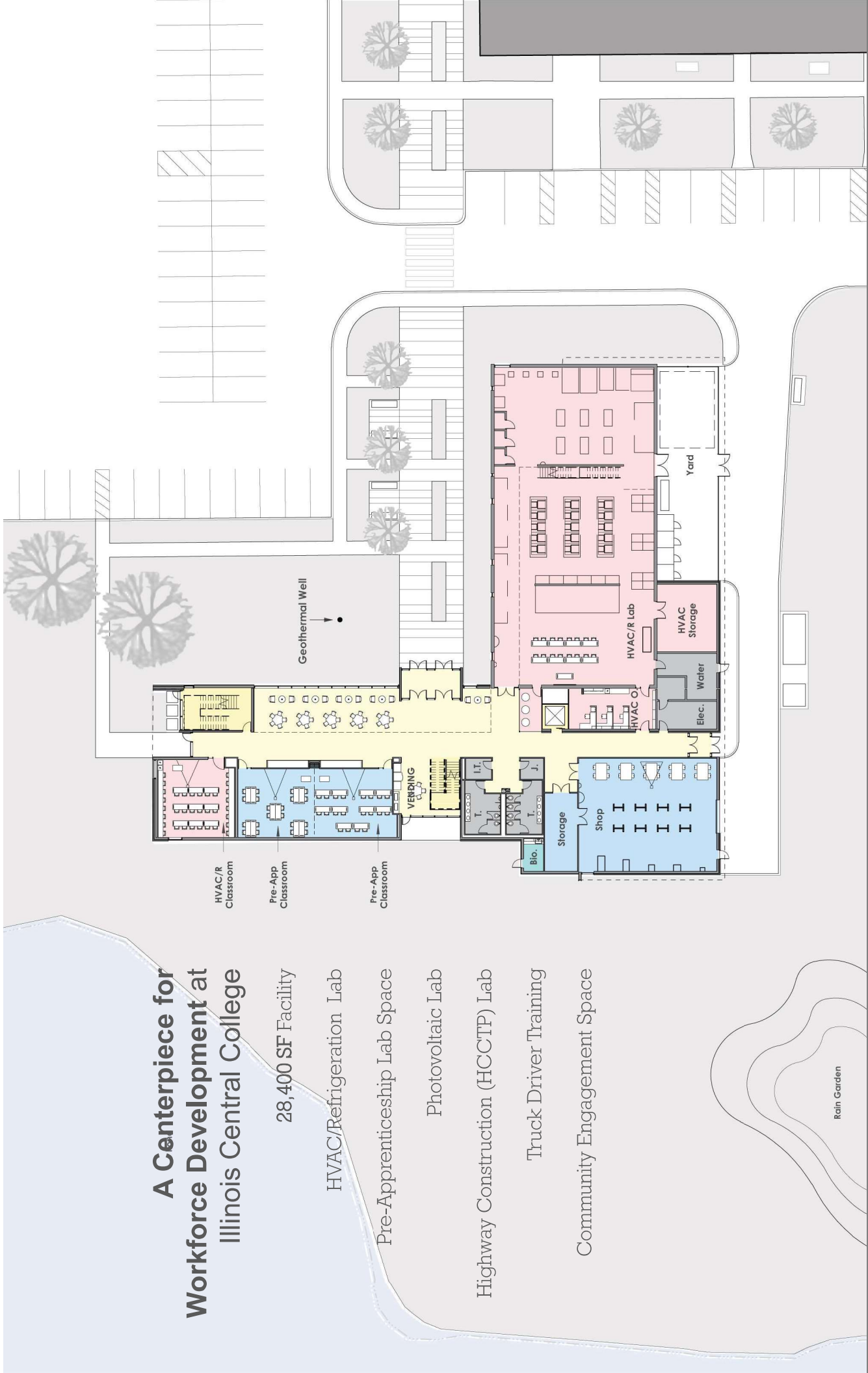
Pre-Apprenticeship Lab Space

Photovoltaic Lab

Highway Construction (HCCCTP) Lab

Truck Driver Training

Community Engagement Space

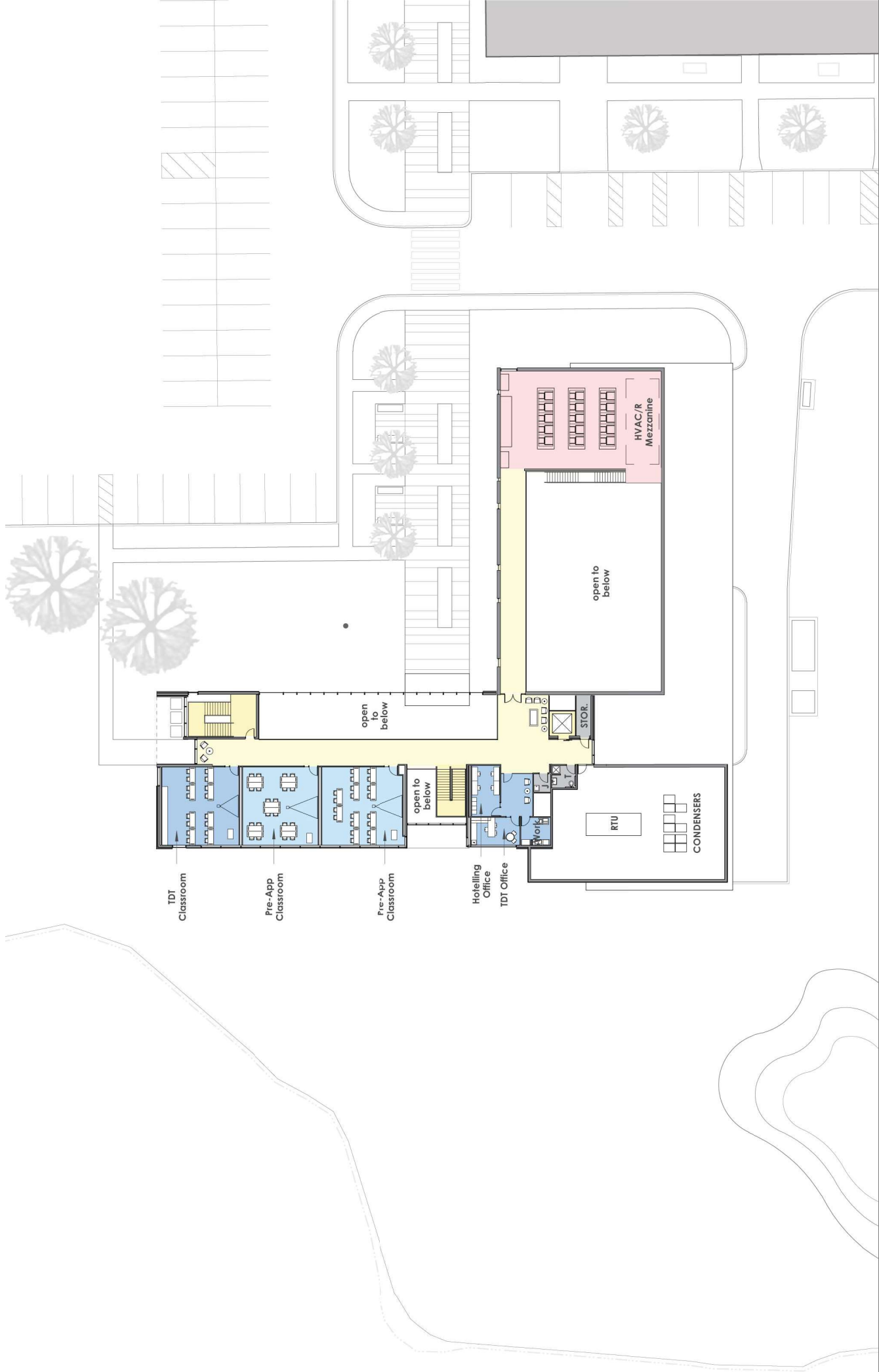


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ILLINOIS CENTRAL COLLEGE
WORKFORCE SUSTAINABILITY CENTER

SECOND FLOOR PLAN



ILLINOIS CENTRAL COLLEGE
WORKFORCE SUSTAINABILITY CENTER

VIEW OF ENTRY



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ILLINOIS CENTRAL COLLEGE
WORKFORCE SUSTAINABILITY CENTER

VIEW OF ENTRY



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ILLINOIS CENTRAL COLLEGE
WORKFORCE SUSTAINABILITY CENTER

VIEW FROM POND

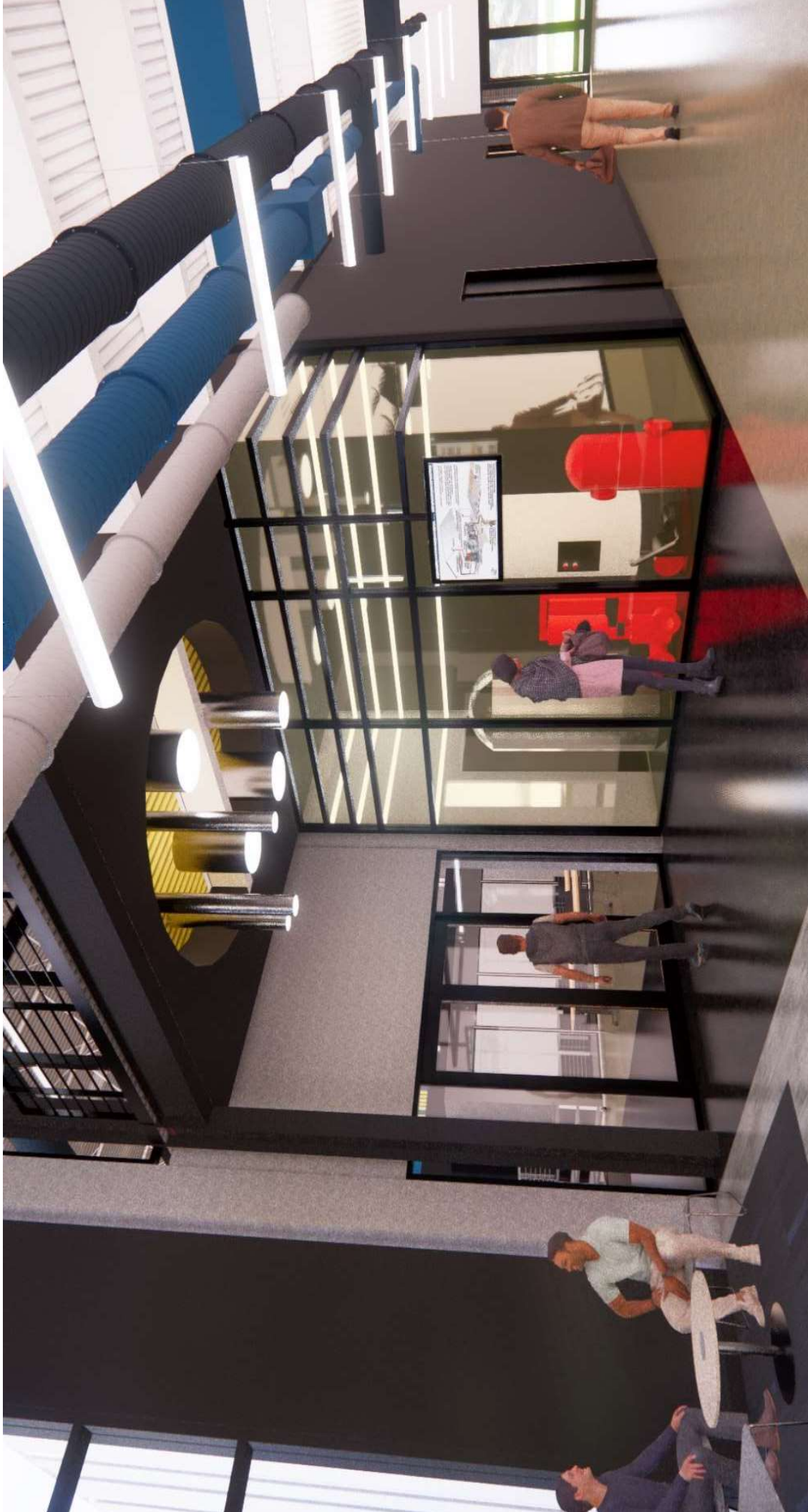


DEMONICA KEMPER ARCHITECTS

*Illinois Community College
Chief Financial Officers*

ILLINOIS CENTRAL COLLEGE
WORKFORCE SUSTAINABILITY CENTER

VIEW OF GEOTHERMAL PUMP ROOM



DEMONICA KEMPER ARCHITECTS

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Chief Financial Officers*

ILLINOIS CENTRAL COLLEGE
WORKFORCE SUSTAINABILITY CENTER

VIEW OF HVAC/R LAB



DEMONICA KEMPER ARCHITECTS

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Chief Financial Officers*



THANK YOU...
QUESTIONS?



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