

# OHIO SCHOOL DESIGN MANUAL

## Ohio School Facilities Commission

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Program Type 1

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***Spatial Relationship Diagram***

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CT-P1-1 Lab

***Accounting – G0/14.0100 - 7***

***Administrative and Professional Support – C0/14.0300 - 8***

***Automation & Robotics – R0/17.0370 - 9***

Aviation Occupations – T4/17.0400 - 10

***Business Management – C1/14.0800 - 11***

***Electronics – R1/17.1503 - 9***

***Financial Services – G1/14.0110 - 12***

***Information Support & Services – N0/14.0210 - 16***

***Interactive Media – N1/14.0240 - 16***

***Legal Management and Support – C2/14.0310 - 8***

Medical Management and Support – C3/14.0320 - 13

***Network Systems – N2/14.0220 - 16***

***Programming and Software Development – N3/14.0230 - 16***

***Telecommunications – F5/17.1504 - 14***

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***Visual Design and Imaging – B2/34.0005 - 16***

CT-P1-2 Office

CT-P1-3 Storage Area

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Program Type 2

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***Spatial Relationship Diagram***

Example

CT-P2-1 Lab

***Allied Health and Nursing – JM - 16***

***Biomedical Science – F0 - 7***

***Biotechnology for Food, Plant, Animal Science – A3/01.2000 - 8***

Community Health Aide – J2/07.0906 - 10

***Criminal Science Technology – P2/17.2815 - 8***

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Emergency Medical Technician – Secondary – P3/17.2811 - 12

***Energy Science – F1/17.1600 – 7***

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***Exercise Science and Sports Medicine – J6/07.0410 - 13***

***Health Information Management – J7/07.4890 - 15***

Health Support Pathway – J8/07.4840 - 14

***Health Unit Coordinator – J9/07.0913 - 15***

Home Health – JA/07.0307 - 10

***Medical Bioscience – J0/07.4850 - 7***

***Medical Laboratory Technology – JC/07.0203 - 8***

***Pharmacy Technician – JG/07.0912 - 7***

***Practical Nursing – JJ/07.0302 - 16***

Therapeutic Pathway – JL/07.4830 - 14

CT-P2-2 Office

CT-P2-3 Storage Area

CT-P2-4 Changing Room

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Program Type 3

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Spatial Relationship Diagram

Example

CT-P3-1 Lab

Early Childhood Education – E0/35.0201 - 7

Observation Room / Infants Room / Kitchen/Break Room

Work Room / Toddler Restroom / Reception

Entrepreneurship – S1/04.4110 - 15

Bookstore / Display

Ground Operations – T5/17.0403 - 19

Reference Room

Lodging – L1/33.0010 - 21

Banquet Room

Marketing Communications – S3/04.0815 - 15

Bookstore/Display

Marketing Management – S4/04.0810 - 15

Bookstore / Display

Supply Chain Management – S0/04.1900 - 15

CT-P3-2 Office

CT-P3-3 Storage Area

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Program Type 4

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**Spatial Relationship Diagram**

Example

CT-P4-1 Lab

Animal Science and Management (small animal) – A2/01.0901 - 7

Pet Shop/Clinic/Grooming/Animal Room #1/Animal Room #2 /Kennel

Career Paths for the Law Profession – P0/17.2810 - 14

Weight Room / Interrogation Room

Clinical Health Care Services – J1/07.1100 - 17

Training Restroom / Laundry Room

Cosmetology – M1/17.2602 - 20

Dispensary / Laundry Room / Facial Room / Manicure Room /

Customer Toilet

Criminal Justice – P1/17.2802 - 14

Weight Room / Interrogation Room

Culinary and Food Service Operations – L0/33.0005 - 26

Restaurant / Dry Storage

Dental Assistant – J3/07.0101 - 29

X-Ray Room / Darkroom

Diagnostic Pathway – J5/07.4820 - 32

Exam Room

Fire Fighter Training – P4/17.2801 - 34

Weight Room

**Firefighting and Emergency Medical Services – P6 - 34**

**Weight Room**

Media Arts – B0/34.0015 - 36

Media Arts Control Room/Edit / Vestibule

Medical Assistant – JB/07.0904 - 17

Training Restroom / Laundry Room

Nurse Assisting – JD/07.0303 - 17

Training Restroom / Laundry Room

Optometric Occupations – JE/07.0603 - 39

Exam Room

Patient Care Technician – JF/07.0994 - 41

Training Restroom / Laundry Room  
 Performing Arts – B1/34.0020 - 44  
 Practice Room  
 Private Security – P5/17.2808 - 14  
 Weight Room / Interrogation Room  
 Surgical Technology – JK/07.0305 - 46  
 Operating Room / Instrument Room / Scrub Room  
 CT-P4-2 Related Classroom  
 CT-P4-3 Office  
 CT-P4-4 Storage Area  
 CT-P4-5 Changing Room

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Program Type 5

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**Spatial Relationship Diagram**

Example

CT-P5-1 Lab

**Agribusiness and Production – A0/01.0301 - 8**

Auto Specialization – T2/17.0303 - 9

Brick, Block, and Cement Masonry – D0/17.1004 - 10

Building and Property Maintenance – D1/17.1011 - 11

Building Technology – D2/17.1017 - 11

Custodial Services – D6/17.1100 - 12

Electrical Trades – D7/17.1002 - 13

Environmental Control Technologies – D8/17.0100 - 14

**Heavy Equipment Operations – D9/17.1003 - 15**

Integrated Systems Technology – R2/17.1012 - 16

**Interior Design Applications – DA/17.1005 - 17**

Manufacturing Design and Development – R3/17.1300 - 18

Natural Resource Management – A6/01.0701 - 19

Plumbing and Pipefitting – DB/17.1007 - 20

Power Equipment Technology – T8/17.3100 - 21

Power Transmission – F4/17.1402 - 22

Welding and Cutting – R6/17.2306 - 23

CT-P5-2 Related Classroom

CT-P5-3 Office

CT-P5-4 Storage Area

CT-P5-5 Changing Room

CT-P5-6 Tool Crib

CT-P5-7 Reference Room

CT-P5-8 Toilet Room

6316

Program Type 6

**Table of Contents**

**Spatial Relationship Diagram**

Example

CT-P6-1 Lab

Auto Collision Repair – T1/17.0301 - 10

Auto Parts Storage

Auto Technology – T3/17.0302 - 12

Engine Storage / Machine Room / Flammable Material Storage

Carpentry – D3/17.1001 - 16

Finishing Room / Material Storage

Construction (2 clusters) - 19

Design/Build - D4/17.1805

Management – D5/17.1806 / CAD Room

**Construction Design and Management – DF - 19**

**CAD Room**

**Engineering Technology – F3/17.1810 - 21**

**CAD Room**

Food Science and Technology – A4/01.1001 - 23

Freezer / Cooler / Retail

**Ground Transportation – T9 - 12**

**Engine Storage / Machine Room / Flammable Material Storage**

Horticulture – A5/01.0601 - 27

Retail

**Industrial Power Technology –A1/01.0201 - 7**

**Engine Storage / Flammable Material Storage**

**Manufacturing Occupations – R7 - 33**

**CNC Room / Inspection Room**

**Mechanical, Electrical, and Plumbing – DE - 19**

**CAD Room**

Medium/Heavy Truck Technician – T7/17.1200 - 29

Engine Storage / Flammable Material Storage / Machine Room

Precision Machining – R5/17.2302 - 33

CNC Room / Inspection Room

**Structural Systems – DD - 19**

**CAD Room**

Wood Product Technologies – DC/17.3601 - 36

Finishing Room / Material Storage

CT-P6-2 Related Classroom

CT-P6-3 Office

CT-P6-4 Storage Area

CT-P6-5 Changing Room

CT-P6-6 Tool Crib

CT-P6-7 Reference Room

CT-P6-8 Toilet Room

6317 Program Type 7 - Table of Contents

**Spatial Relationship Diagram**

Example

CT-P7-1 Lab

**Aircraft Maintenance – T0/17.0401 - 7**

**Cleaning Room / Parts Storage / Hazardous Material Storage**

**Air Transportation – TA - 7**

**Cleaning Room / Parts Storage / Hazardous Material Storage**

Animal Science and Management (Equine) – A2/01.0901 - 11

Stables

CT-P7-2 Related Classroom

CT-P7-3 Office

CT-P7-4 Storage Area

CT-P7-5 Changing Room

CT-P7-6 Tool Crib

CT-P7-7 Reference Room

CT-P7-8 Toilet Room

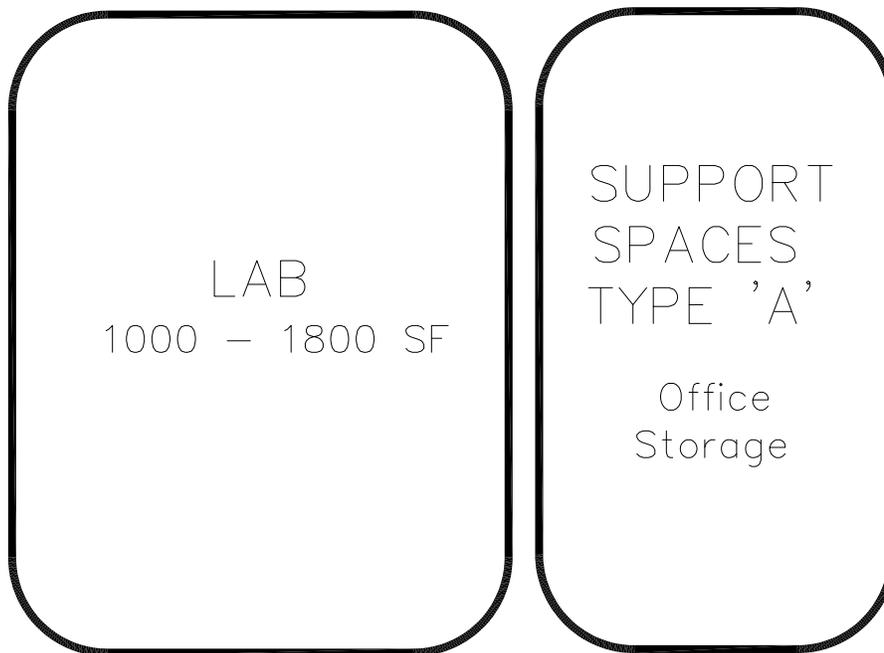
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**Program Type 1**

Description: Small to medium sized lab space with typical support space. Lab and support space to have finished floor, painted walls, and suspended acoustical ceiling. **Where necessary, include emergency shut-off switch for equipment.**

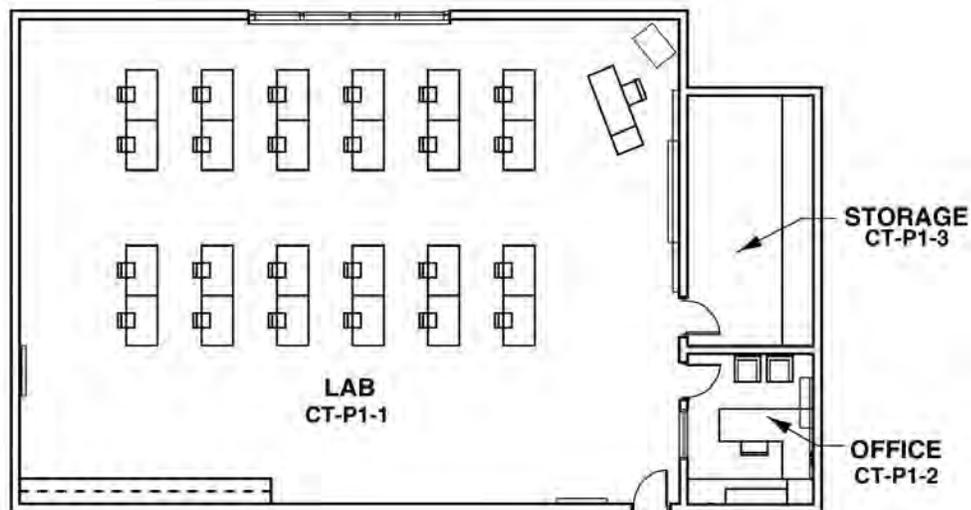


## NOTES:

This is an example of how the Program Type 1 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 1 space plates:

- CT-P1-1 Lab
- CT-P1-2 Office
- CT-P1-3 Storage

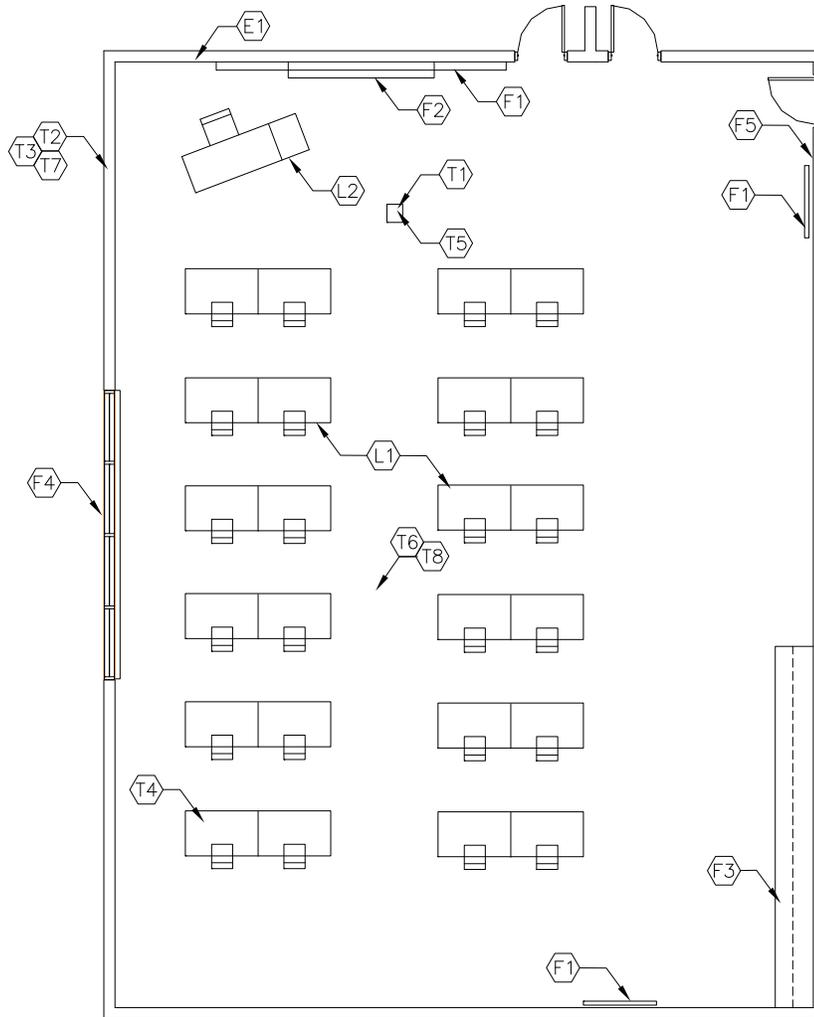


**Program Type 1**

This is an example to show the possible relationships of spaces for this program type.

**NOTES:**

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements for the storage room and office.



CAPACITY:	24 Students
SIZE:	1,000 – 1,800 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P1-2 and CT-P1-3

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

<p><b><u>PROGRAM DESCRIPTION:</u></b>                  Prepares students for careers that record, classify, summarize, analyze and communicate a business's financial information and business transactions. Accounting includes such activities as bookkeeping, systems design, and analysis and interpretation of accounting information. Sample occupations include: certified public accounting (CPA), auditor, financial accountant, accounting clerk, treasurer, bookkeeper, forensic accountant, and international accountant.</p> <p><b>Program Type:</b> 1</p> <p><b>Size Requirements:</b> 1,200 SF Lab</p> <p><b>Lab Requirements:</b></p> <table border="0"> <tr> <td style="width: 30%;"><b><u>FINISHES:</u></b></td> <td style="text-align: right;"><b>Spec.</b></td> </tr> <tr> <td></td> <td style="text-align: right;"><b>Ref #</b></td> </tr> <tr> <td><b>Flooring:</b></td> <td></td> </tr> <tr> <td>    Carpet</td> <td style="text-align: right;">096816</td> </tr> <tr> <td>    Optional: ET, sheet vinyl, or linoleum</td> <td style="text-align: right;">096500 096516</td> </tr> <tr> <td><b>Base:</b></td> <td></td> </tr> <tr> <td>    Resilient</td> <td style="text-align: right;">096500</td> </tr> <tr> <td><b>Ceiling:</b></td> <td></td> </tr> <tr> <td>    Suspended acoustical</td> <td style="text-align: right;">095113</td> </tr> <tr> <td><b>Walls:</b></td> <td></td> </tr> <tr> <td>    Painted concrete masonry units</td> <td style="text-align: right;">042000/ 099100</td> </tr> <tr> <td colspan="2"> <b><u>LOOSE FURNISHINGS:</u></b></td> </tr> <tr> <td>L1 (24) Computer workstation furniture &amp; chairs</td> <td></td> </tr> <tr> <td>L2 (1) Teacher station &amp; chair</td> <td></td> </tr> <tr> <td>    Wastebasket</td> <td></td> </tr> <tr> <td colspan="2"> <b><u>Electronic Safety and Security:</u></b></td> </tr> <tr> <td>    Life safety devices per code</td> <td style="text-align: right;">283111</td> </tr> <tr> <td colspan="2"> <b><u>Miscellaneous:</u></b></td> </tr> <tr> <td>    Pencil sharpener (optional)</td> <td></td> </tr> </table>	<b><u>FINISHES:</u></b>	<b>Spec.</b>		<b>Ref #</b>	<b>Flooring:</b>		Carpet	096816	Optional: ET, sheet vinyl, or linoleum	096500 096516	<b>Base:</b>		Resilient	096500	<b>Ceiling:</b>		Suspended acoustical	095113	<b>Walls:</b>		Painted concrete masonry units	042000/ 099100	 <b><u>LOOSE 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Note 4</td> <td style="text-align: right;">272133</td> </tr> <tr> <td>T7</td> <td>Classroom technology center video port</td> <td style="text-align: right;">271543, 274116, 274119, 275127</td> </tr> <tr> <td>T8</td> <td>Wireless access point cable above ceiling</td> <td style="text-align: right;">271513</td> </tr> <tr> <td>E1</td> <td>Duplex receptacle with dedicated circuit for wireless devices</td> <td></td> </tr> </table>	F1	24' of marker board, tack board, or tackable wall surface	101100	F2	Projection screen, 6'x8'	115213	F3	40' of base and wall cabinets	123550	F4	Windows with integral blinds	085113	F5	Pencil sharpener support (optional)	062000		Fire suppression system	211000		Supply/return air system	Div. 23		Independent temperature control	230923		Multilevel switching	262726		6 duplex receptacles	262726		Double duplex receptacle adjacent to each data and video port	262726	T1	1 projector video port	271543	T2	1 voice port and phone	271513/273123	T3	1 data port near teacher 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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**C2 / 14.0310 ADMINISTRATIVE and PROFESSIONAL SUPPORT**  
**C0 / 14.0300 LEGAL MANAGEMENT and SUPPORT**  
**CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>PROGRAM DESCRIPTION:</b>	<b>FEATURES<sup>1</sup>:</b>	<b>Spec Ref.#</b>	
<p><b>A&amp;PS:</b> Based on a sequence of courses, students will be prepared for careers which support business operations through a variety of administrative duties including information and communication management, data processing and collection, and project tracking. Due to changes in technology, the skills required in administrative support careers have increased and correspond with that of a mid-level manager. Sample occupations within this pathway include: administrative assistant, customer service representative, executive assistant, office manager, and project coordinator.</p> <p><b>LM&amp;S:</b> Based on a sequence of courses, students will be prepared for careers which facilitate legal operations through a variety of management and administrative duties. Employees in this field are found in law firms, courts, court reporting firms, legal departments of corporate businesses, and government regulatory agencies. Sample occupations within this pathway include: legal office manager, legal assistant, legal secretary, paralegal, court administrator, compliance analyst, and regulatory analyst.</p> <p><b>Program Type:</b> 1  <b>Size Requirements:</b> 1,200 SF Lab  <b>Lab Requirements:</b></p>	<b>Fixed Items:</b>		
	F1	24' of marker board, tack board, or tackable wall surface	101100
	F2	Projection screen, 6'x8'	115213
	F3	40' of base and wall cabinets	123550
	F4	Windows with integral blinds	085113
	F5	Pencil sharpener support (optional)	062000
	<b>Fire Suppression:</b>		
		Fire suppression system	211000
	<b>Plumbing:</b> N/A		
	<b>HVAC:</b>		
		Supply/return air system	Div. 23
		Independent temperature control	230923
	<b>Electrical:</b>		
		Fluorescent lighting,	
		<b>computer aided</b> lenses:	265100
		Illumination level: See Table 8600-5	
		Multilevel switching	262726
		6 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
	<b>Communications:</b>		
	T1	1 projector video port	271543
	T2	1 voice port and phone	271513/273123
	T3	1 data port near teacher workstation	271513
	T4	26 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
	T5	Ultra-short throw interactive projector	274119
	T6	Wireless access point (WAP) as determined by Design – refer to Note 4	272133
	T7	Classroom technology center video port	271543, 274116, 274119, 275127
	T8	Wireless access point cable above ceiling	271513
	E1	Duplex receptacle with dedicated circuit for wireless devices	
	<b>Electronic Safety and Security:</b>		
		Life safety devices per code	283111
	<b>Miscellaneous:</b> Pencil sharpener (optional)		
	<b>LOOSE FURNISHINGS:</b>		
	L1	(24) Computer workstation furniture & chairs	
	L2	(1) Teacher station & chair	
		Wastebasket	
<b>FINISHES:</b>			
<b>Flooring:</b>			
	Carpet	096816	
	Optional: ET, sheet vinyl, or linoleum	096500 096516	
<b>Base:</b>			
	Resilient	096500	
<b>Ceiling:</b>			
	Suspended acoustical	095113	
<b>Walls:</b>			
	Painted concrete masonry units	042000/ 099100	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

<p><b><u>PROGRAM DESCRIPTION:</u></b>  <u>Electronics:</u> Classroom, laboratory, and practical learning experiences that includes both theory and practice. Students learn construction, maintenance, and repair of digital, analog, and microprocessor circuits in applications such as communications equipment, consumer equipment, and industrial equipment.  <u>Automation &amp; Robotics:</u> Utilizing business and Industry, math, English, science and technology standards, introduces concepts in Automation and Robotics technologies: Computer Numerical Control (CNC), Data Acquisition and Analysis, Electrical/Electronic controls, Fluid Power, Robotics and Programmable Logic Controllers (PLC).</p> <p><b>Program Type:</b> 1</p> <p><b>Size Requirements:</b> 1,800 SF Lab</p> <p><b>Lab Requirements:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FINISHES:</u></th> <th style="text-align: left;"><u>Spec. 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1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity/placement per 272133 requirements.

**T4 / 17.0400 AVIATION OCCUPATIONS  
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Classroom and practical experiences that include instruction relating to aircraft maintenance, operation, and ground support. Instructor and program must be certified by the Federal Aviation Administration (FAA).	<b>Spec. Ref.#</b> <b>FEATURES<sup>1</sup>:</b> <b><u>Fixed Items:</u></b>
<b>Program Type:</b>	1	24' of marker board, tack board, and tackable wall surface 101100 Demonstration table/teacher desk 123550 60' of perimeter sink base cabinets with 5 sinks 123550 30' of wall cabinets 123550 Fume hood 115313 (5) Paper towel dispensers 102813 (1) Safety shower/eyewash 224000 Pencil sharpener support (optional) 062000 Windows with integral blinds 085113 Projection screen, 6'x8' 115213
<b>Size Requirements:</b>	1,500 SF Lab	<b><u>Fire Suppression:</u></b>
<b>Lab Requirements:</b>		Fire suppression system 211000
<b><u>FINISHES:</u></b>		<b><u>Plumbing:</u></b>
Flooring:	Spec. Ref #	Plumbing connections
ET, sheet vinyl, or linoleum	096500	221116/221119/224000
Base:	096516	Safety shower/eyewash connections 224000
Resilient	096500	Master shut-off for gas 226313
Ceiling:		Gas connections 226313
Suspended acoustical	095113	Compressed air connections 221500
Walls:		<b><u>HVAC:</u></b>
Painted concrete masonry units	042000/ 099100	Supply/return air system Div. 23
<b><u>LOOSE FURNISHINGS:</u></b>		Independent temperature control 230923
(12) 2-person work tables w/epoxy tops and gas & electric connections		Manual exhaust Div. 23
(24) Student stools/chairs		Fume hood exhaust Div. 23
(1) Teacher chair or stool		<b><u>Electrical:</u></b>
(4) Computer workstations		Fluorescent lighting 265100
Wastebasket		Illumination level: See Table 8600-5
<b><u>Electronic Safety and Security:</u></b>		Multilevel switching 262726
Life safety devices per code	283111	6 duplex receptacles 262726
<b><u>Miscellaneous:</u></b>		Double duplex receptacle adjacent to each data and video port 262726
Pencil sharpener (optional)		Emergency lighting 265100
<b><u>Communications: (cont'd)</u></b>		Means of egress lighting per code 265100
<b><i>Classroom technology center video port</i></b>		<b><u>Communications:</u></b>
<b><i>271543, 274116, 274119, 275127</i></b>		1 <b>projector</b> video port 271543
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		1 voice port and phone 271513/273123
<b><u>NOTES:</u></b>		1 data port near teacher workstation 271513
1. Finishes/Features: Refer to Chapter 9 for specification references.		11 data ports 271513
2. <b><i>Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.</i></b>		Clock 275313
		Central sound system 275123
		Sound reinforcement system 275127
		<b><i>Ultra-short throw interactive projector</i></b>
		274119
		<b><i>Wireless access point cable above ceiling</i></b>
		271513
		<b><i>Wireless access point (WAP) as determined by Design – refer to Note 4</i></b>
		272133

<b><u>PROGRAM DESCRIPTION:</u></b>	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.																																				
An instructional program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in human resources management, strategic planning, managing technology, staffing functions, general office functions, financial functions, telecommunications, and supervisory functions.	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>																																				
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**G1 / 14.0110 FINANCIAL SERVICES  
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Prepares students for careers in banking, securities and investments, and insurance. Activities include accepting deposits, lending funds and extending credit, banking services, investments, mortgages and loans, real estate, and insurance. Sample occupations include: loan officer, branch manager, investment banker, financial planner, bank teller, personal financial advisor, real estate broker, and credit analyst.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.															
<b>Program Type:</b>	1	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>															
<b>Size Requirements:</b>	1,200 SF Lab	<table border="0"> <tr> <td>F1</td> <td>24' of marker board, tack board, or tackable wall surface</td> <td>101100</td> </tr> <tr> <td>F2</td> <td>Projection screen, 6'x8'</td> <td>115213</td> </tr> <tr> <td>F3</td> <td>40' of base and wall cabinets</td> <td>123550</td> </tr> <tr> <td>F4</td> <td>Windows with integral blinds</td> <td>085113</td> </tr> <tr> <td>F5</td> <td>Pencil sharpener support (optional)</td> <td>062000</td> </tr> </table>	F1	24' of marker board, tack board, or tackable wall surface	101100	F2	Projection screen, 6'x8'	115213	F3	40' of base and wall cabinets	123550	F4	Windows with integral blinds	085113	F5	Pencil sharpener support (optional)	062000	
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Flooring:		<b><u>Plumbing:</u></b>																
Carpet	096816	N/A																
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<b><u>LOOSE FURNISHINGS:</u></b>		6 duplex receptacles	262726															
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<b><u>Electronic Safety and Security:</u></b>	283111	T2 1 voice port and phone	271513/273123															
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<b><u>Miscellaneous:</u></b>		T4 26 data ports	271513															
Pencil sharpener (optional)		Clock	275313															
<b><u>NOTES:</u></b>		Central sound system	275123															
1. Finishes/Features: Refer to Chapter 9 for specification references.		Sound reinforcement system	275127															
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.		T5 Ultra-short throw interactive projector	274119															
<b>Ohio School Design Manual-CT Ohio School Facilities Commission</b>	6311 - 12	T6 Wireless access point (WAP) as determined by Design – refer to Note 4	272133															
<b>2014</b>	6311 - 12	T7 Classroom technology center video port	271543, 274116, 274119, 275127															
<b>Ohio School Design Manual-CT Ohio School Facilities Commission</b>	6311 - 12	T8 Wireless access point cable above ceiling	271513															
<b>Ohio School Design Manual-CT Ohio School Facilities Commission</b>	6311 - 12	E1 Duplex receptacle with dedicated circuit for wireless devices																

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1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**C3 / 14.0320 MEDICAL MANAGEMENT AND SUPPORT**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P1-1**

<b><u>PROGRAM DESCRIPTION:</u></b>	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.																		
Based on a sequence of courses, students will be prepared for careers which facilitate medical business operations, through a variety of management and administrative duties. Employees in this field are found in medical offices, hospitals, and insurance companies. Sample occupations within this pathway include: admissions specialists, benefits coordinators, medical billing specialists, medical records and health information technician, medical office manager, claims processor, and medical coding specialist.	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>																		
<b>Program Type:</b> 1	<table border="0"> <tr> <td>F1</td> <td>24' of marker board, tack board, or tackable wall surface</td> <td align="right">101100</td> </tr> <tr> <td><b>F2</b></td> <td>Projection screen, 6'x8'</td> <td align="right">115213</td> </tr> <tr> <td>F3</td> <td>40' of base and wall cabinets</td> <td align="right">123550</td> </tr> <tr> <td><b>F4</b></td> <td>Windows with integral blinds</td> <td align="right">085113</td> </tr> <tr> <td>F5</td> <td>Pencil sharpener support (optional)</td> <td align="right">062000</td> </tr> <tr> <td></td> <td>Paper towel dispenser</td> <td align="right">102813</td> </tr> </table>	F1	24' of marker board, tack board, or tackable wall surface	101100	<b>F2</b>	Projection screen, 6'x8'	115213	F3	40' of base and wall cabinets	123550	<b>F4</b>	Windows with integral blinds	085113	F5	Pencil sharpener support (optional)	062000		Paper towel dispenser	102813	
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<b>Size Requirements:</b> 1,200 SF Lab	<b><u>Fire Suppression:</u></b> Fire suppression system 211000																			
<b>Lab Requirements:</b>	<b><u>Plumbing:</u></b> Plumbing connections 221116/221119/224000																			
<b><u>FINISHES:</u></b>	<b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923																			
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Ceiling: Suspended acoustical 095113	T5 <b>Ultra-short throw interactive</b> projector 274119																			
Walls: Painted concrete masonry units 042000/ 099100	T6 <b>Wireless access point (WAP) as determined by Design – refer to Note 4</b> 272133																			
<b><u>LOOSE FURNISHINGS:</u></b> (12) Two-person work stables (24) Student chairs/stools (1) Teacher station & chair Wastebasket	T7 <b>Classroom technology center video port</b> 271543, 274116, 274119, 275127																			
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<b><u>Miscellaneous:</u></b> Pencil sharpener (optional)	E1 <b>Duplex receptacle with dedicated circuit for wireless devices</b>																			

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**F5 / 17.1504 TELECOMMUNICATIONS  
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Specialized classroom and practical experiences concerned with the assembly, installation, operation, maintenance, and repair of telephone equipment, which includes pole climbing, cable construction, cable splicing, cable pulling, job planning, equipment wiring, trouble-shooting procedures of PBX systems, and field repair of telephones.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.																																										
<b>Program Type:</b>	1	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>																																										
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2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**L2 / 33.0200 TRAVEL AND TOURISM  
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b><u>PROGRAM DESCRIPTION:</u></b> Educational programs in travel and tourism prepare learners for careers in management, marketing and operation of destination marketing organizations, attractions, meetings and events, transportation, and travel related services.</p> <p><b>Program Type:</b> 1</p> <p><b>Size Requirements:</b> 1,200 SF Lab</p> <p>Lab Requirements:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FINISHES:</u></th> <th style="text-align: left;"><u>Spec. 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E1	Duplex receptacle with dedicated circuit for wireless devices																																																																																																																															

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

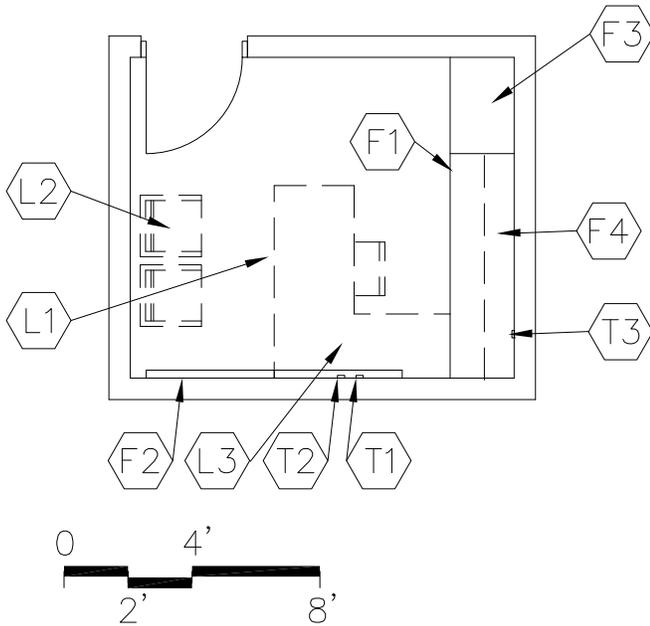
**B2 /34.0005 VISUAL DESIGN AND IMAGING ■ N0 /14.0210 INFORMATION SUPPORT & SERVICES  
 N3 /14.0230 PROGRAMMING and SOFTWARE DEVELOPMENT  
 N2 /14.0220 NETWORK SYSTEMS ■ N1 /14.0240 INTERACTIVE MEDIA  
 CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>PROGRAM DESCRIPTION:</b>  <u>VD&amp;I:</u> Programs that focus on the creation, design, and execution of layouts and illustrations on various mediums including electronic media and the theory and processes of image transfer, including offset, flexography, lithography, photoengraving and other techniques. Communications, business principles and leadership skill development related to the industry are essential to the program. Specialization areas include commercial art and graphic occupations.  <u>IS&amp;S:</u> An instructional program that provides training for careers in dealing in information technology deployment and information systems management.  <u>P&amp;SD:</u> An instructional program that provides training for careers dealing with hardware and software programming, to design, development, and implementation computer systems and software.  <u>NS:</u> An instructional program that provides training for careers in communication network system planning, administration, and management. Skills for programs/pathways in this are taken from the itWORKS.OHIO Career Field Technical Content Standards.  <u>IM:</u> An instructional program that provides training in the area of interactive mutli-media development that includes creating, designing, and producing interactive multimedia products and services and digitally-generated or computer-enhanced media.  <b>Program Type:</b> 1  <b>Size Requirements:</b> 1,200 SF Lab  <b>Lab Requirements:</b> Spec.  <u>FINISHES:</u> Ref #          Flooring:            Carpet 096816            Optional: ET, sheet vinyl, 096500            or linoleum 096516          Base: Resilient 096500          Ceiling:            Suspended acoustical 095113          Walls:            Painted concrete masonry units 042000/            099100          Miscellaneous: Pencil sharpener (optional)</p>	<p><b>FEATURES<sup>1</sup>:</b> Spec Ref.#  <u>Fixed Items:</u>          F1 24' of marker board, tack board, or tackable wall surface 101100          F2 Projection screen, 6'x8' 115213          F3 40' of base and wall cabinets 123550          F4 Windows with integral blinds 085113          F5 Pencil sharpener support (optional) 062000  <u>Fire Suppression:</u>            Fire suppression system 211000  <u>Plumbing:</u> N/A  <u>HVAC:</u>            Supply/return air system Div. 23            Independent temperature control 230923  <u>Electrical:</u>            Fluorescent lighting,              <b>computer aided</b> lenses: 265100              Illumination level: See Table 8600-5            Multilevel switching 262726            6 duplex receptacles 262726            Double duplex receptacle adjacent to each data and video port 262726  <u>Communications:</u>          T1 1 projector video port 271543          T2 1 voice port and phone 271513/273123          T3 1 data port near teacher workstation 271513          T4 26 data ports 271513            Clock 275313            Central sound system 275123            Sound reinforcement system 275127          T5 Ultra-short throw interactive projector 274119          T6 Wireless access point (WAP) as determined by Design – refer to Note 4 272133          T7 Classroom technology center video port 271543, 274116, 274119, 275127          T8 Wireless access point cable above ceiling 271513          E1 Duplex receptacle with dedicated circuit for wireless devices  <u>Electronic Safety and Security:</u>            Life safety devices per code 283111  <u>LOOSE FURNISHINGS:</u>          L1 (24) Computer workstation furniture &amp; chairs          L2 (1) Teacher station &amp; chair            Wastebasket</p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.



**PROGRAM ACTIVITIES:**

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

**SPATIAL RELATIONSHIPS:**

- Near related lab
- Direct access to school circulation areas

**ENVIRONMENTAL CONSIDERATIONS:**

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P1-2**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271513
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

**PROGRAM ACTIVITIES:**

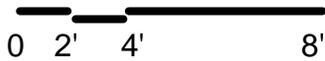
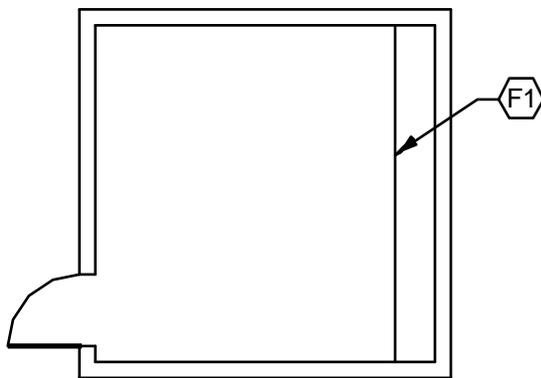
- Space for storage of lab equipment

**SPATIAL RELATIONSHIPS:**

- Near related lab

**ENVIRONMENTAL CONSIDERATIONS:**

N/A



CAPACITY:  
SIZE:

N/A  
200 SF

NOTES:

**STORAGE AREA  
CT-P1-3**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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**Program Type 2**

Description: Small to medium sized lab space with typical support space. This program is to utilize standard construction and be one-story (16'+/- tall). Lab and support space to have finished floor, painted walls, and suspended acoustical ceiling. **Where necessary, include emergency shut-off switch for equipment.**

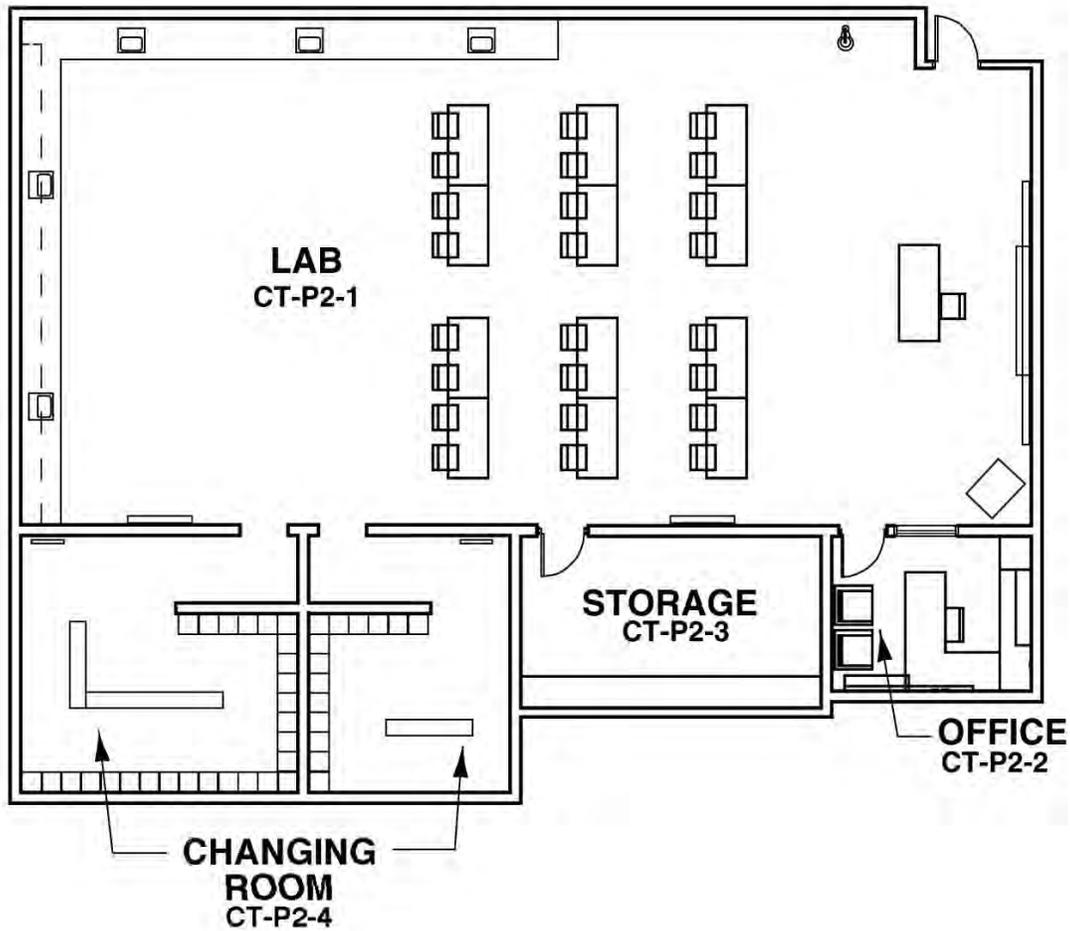


## NOTES:

This is an example of how the Program Type 2 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 2 space plates:

- CT-P2-1 Lab
- CT-P2-2 Office
- CT-P2-3 Storage
- CT-P2-4 Changing Room

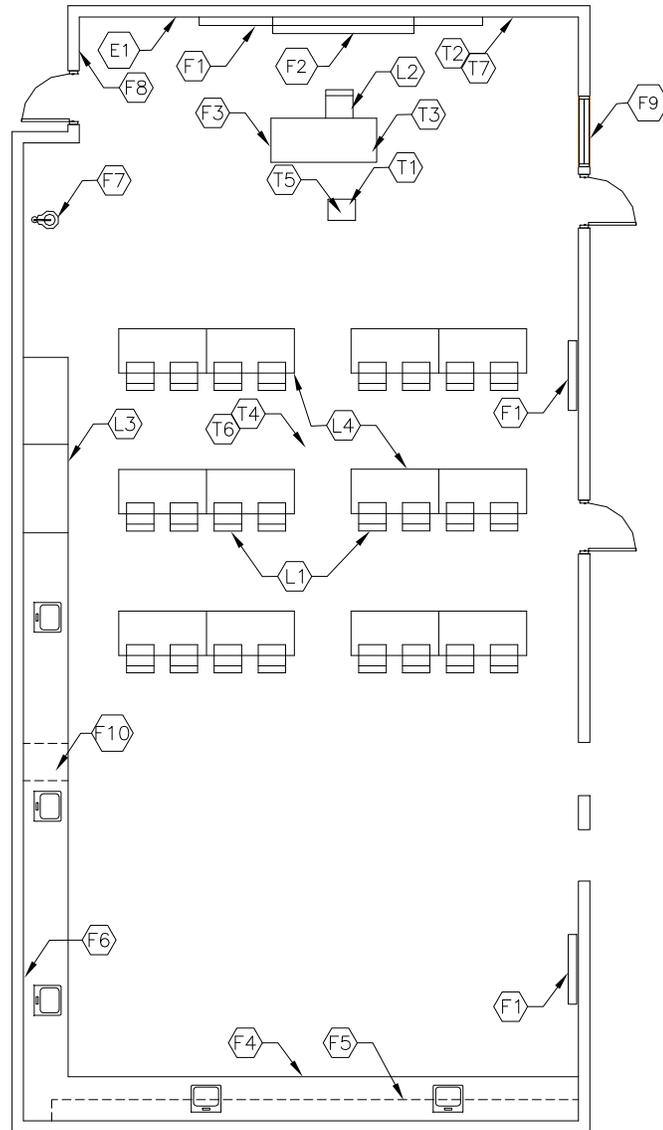


**Program Type 2**

This is an example to show the possible relationships of spaces for this program type.

**NOTES:**

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements for the office, storage room, and changing room.



CAPACITY:	24 Students
SIZE:	1,500 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P2-2 thru CT-P2-4

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.



**A3 / 01.2000 BIOTECHNOLOGY FOR FOOD, PLANT, ANIMAL SCIENCES**  
**JC / 07.0203 MEDICAL LABORATORY TECHNOLOGY**  
**P2 / 17.2815 CRIMINAL SCIENCE TECHNOLOGY**  
**CT-P2-1**

**PROGRAM DESCRIPTION:**

**BFPAS:** Applies principles of chemistry, microbiology and genetics to plant and animal research. The focus of this research is to enhance the production and physical attributes of plants and animals, as well as to generate animal and plant products used today in transportation, manufacturing, medicine, food production and environmental protection.

**MLT:** A combination of subject matter and experiences designed to prepare to work under the supervision of medical technologist, clinical pathologist, or physician to perform routine clinical laboratory procedures and specimen collection techniques including phlebotomy.

**CST:** Utilizing business and industry standards as framework for application of clinical and criminal laboratory science, evidentiary testing and analysis, study of society's formal control system, investigative techniques, criminal law, criminal process, administration of Justice System computer applications, record-keeping, and reconstruction techniques.

**Program Type:** 2

**Size Requirements:** 1,500 SF Lab

**Lab Requirements:**

<u>FINISHES:</u>	<u>Spec. Ref #</u>
Flooring:	
ET, rubber, linoleum, sheet vinyl, polished concrete finishing, or colored concrete finishing	096500 096516 033510 033519
Base:	
Resilient	096500
Ceiling:	
Suspended acoustical	095113
Walls:	
Painted concrete masonry units	042000/ 099100
<b><u>LOOSE FURNISHINGS:</u></b>	
L1 (24) Student stools/chairs	
L2 (1) Teacher chair or stool	
L3 (4) Computer workstations	
L4 (12) 2-person work tables with epoxy tops with gas and electric Wastebasket	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A3 / 01.2000 BIOTECHNOLOGY FOR FOOD, PLANT, ANIMAL SCIENCES  
 JC / 07.0203 MEDICAL LABORATORY TECHNOLOGY  
 P2 / 17.2815 CRIMINAL SCIENCE TECHNOLOGY**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P2-1**

		Spec. Ref.#
<b>FEATURES<sup>1</sup>:</b>		
<u>Fixed Items:</u>		
F1	24' of marker board, tack board, or tackable wall surface	101100
F2	Projection screen, 6'x8'	115213
F3	Demonstration table/teacher desk	123550
F4	60' of perimeter sink base cabinets with 5 sinks	123550
F5	30' of wall cabinets	123550
F6	(5) Paper towel dispensers	102813
F7	Safety shower/eyewash	224500
F8	Pencil sharpener support (optional)	062000
F9	Windows with integral blinds	085113
F10	Undercounter refrigerator	113100
<u>Fire Suppression:</u>		
	Fire suppression system	211000
<u>Plumbing:</u>		
	Plumbing connections	221116/221119/224000
	Safety shower/eyewash connections	224000
	Master shut-off for gas	226313
	Gas connections	226313
<u>Communications:</u>		
T1	1 projector video port	271543
T2	1 voice port and phone	271513/273123
T3	1 data port at demonstration table	271513
T4	Wireless access point cable above ceiling	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
T5	Overhead projector	274119
T6	Wireless access point (WAP) as determined by Design – refer to Note 4	272133
T7	Classroom technology center video port	271543, 274116, 274119, 275127
E1	Duplex receptacle with dedicated circuit for wireless devices	
<u>HVAC:</u>		
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Manual exhaust	Div. 23
<u>Electrical:</u>		
	<b>Fluorescent lighting</b>	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	6 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	Means of egress lighting per code	265100
<u>Electronic Safety and Security:</u>		
	Life safety devices per code	283111
<u>Miscellaneous:</u>		
	Pencil sharpener (optional)	

**NOTE**

1. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

<p><b><u>PROGRAM DESCRIPTION:</u></b>  <u>CHA:</u> Utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Instruction includes concepts, subject matter and experience to serve as a liaison between professional health workers and the recipients of health services.  <u>HH:</u> Utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Introduces concepts, subject matter and experiences to assist elderly, convalescent, or handicapped in their homes for daily living needs.</p> <p><b>Program Type:</b> 2</p> <p><b>Size Requirements:</b> 1,500 SF Lab</p> <p><b>Lab Requirements:</b></p> <table border="0"> <tr> <td><u>FINISHES:</u></td> <td style="text-align: right;">Spec.</td> </tr> <tr> <td>Flooring:</td> <td style="text-align: right;"><u>Ref #</u></td> </tr> <tr> <td>ET, rubber, sheet vinyl, linoleum,</td> <td style="text-align: right;">096500</td> </tr> <tr> <td>polished concrete finishing,</td> <td style="text-align: right;">096516</td> </tr> <tr> <td>or colored concrete finishing</td> <td style="text-align: right;">033510</td> </tr> <tr> <td></td> <td style="text-align: right;">033519</td> </tr> </table> <p>Base:</p> <table border="0"> <tr> <td>Resilient</td> <td style="text-align: right;">096500</td> </tr> </table> <p>Ceiling:</p> <table border="0"> <tr> <td>Suspended acoustical</td> <td style="text-align: right;">095113</td> </tr> </table> <p>Walls:</p> <table border="0"> <tr> <td>Painted concrete masonry units</td> <td style="text-align: right;">042000/ 099100</td> </tr> </table> <p><u>LOOSE FURNISHINGS:</u>          (12) Two-person work tables          (24) Students chairs/stools          (1) Teacher station &amp; chair          Wastebasket</p> <p><u>Electronic Safety and Security:</u>          Life safety devices per code 283111</p>	<u>FINISHES:</u>	Spec.	Flooring:	<u>Ref #</u>	ET, rubber, sheet vinyl, linoleum,	096500	polished concrete finishing,	096516	or colored concrete finishing	033510		033519	Resilient	096500	Suspended acoustical	095113	Painted concrete masonry units	042000/ 099100	<table border="0"> <tr> <td><u>FEATURES<sup>1</sup>:</u></td> <td style="text-align: right;">Spec.</td> </tr> <tr> <td><u>Fixed Items:</u></td> <td style="text-align: right;"><u>Ref.#</u></td> </tr> <tr> <td>24' of marker board, tack board, or tackable wall surface</td> <td style="text-align: right;">101100</td> </tr> <tr> <td>30' of sink base cabinets w/2 sinks</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>30' of wall cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>Pencil sharpener support (optional)</td> <td style="text-align: right;">062000</td> </tr> <tr> <td>Windows with integral blinds</td> <td style="text-align: right;">085113</td> </tr> <tr> <td>Projection screen, 6'x8'</td> <td style="text-align: right;">115213</td> </tr> <tr> <td>(2) Paper towel dispensers</td> <td style="text-align: right;">102813</td> </tr> </table> <p><u>Fire Suppression:</u></p> <table border="0"> <tr> <td>Fire suppression system</td> <td style="text-align: right;">211000</td> </tr> </table> <p><u>Plumbing:</u></p> <table border="0"> <tr> <td>Plumbing connections</td> <td style="text-align: right;">221116/221119/224000</td> </tr> </table> <p><u>HVAC:</u></p> <table border="0"> <tr> <td>Supply/return air system</td> <td style="text-align: right;">Div. 23</td> </tr> <tr> <td>Independent temperature control</td> <td style="text-align: right;">230923</td> </tr> </table> <p><u>Electrical:</u></p> <table border="0"> <tr> <td>Fluorescent lighting</td> <td style="text-align: right;">265100</td> </tr> <tr> <td>Illumination level: See Table 8600-4</td> <td></td> </tr> <tr> <td>Multilevel switching</td> <td style="text-align: right;">262726</td> </tr> <tr> <td>6 duplex receptacles</td> <td style="text-align: right;">262726</td> </tr> <tr> <td>Double duplex receptacle adjacent to each data and video port</td> <td style="text-align: right;">262726</td> </tr> </table> <p><u>Communications:</u></p> <table border="0"> <tr> <td>1 <b>projector</b> video port</td> <td style="text-align: right;">271543</td> </tr> <tr> <td>1 voice port and phone</td> <td style="text-align: right;">271513/273123</td> </tr> <tr> <td>1 data port near teacher workstation</td> <td style="text-align: right;">271513</td> </tr> <tr> <td><b>Wireless access point cable above ceiling</b></td> <td style="text-align: right;">271513</td> </tr> <tr> <td>Clock</td> <td style="text-align: right;">275313</td> </tr> <tr> <td>Central sound system</td> <td style="text-align: right;">275123</td> </tr> <tr> <td>Sound reinforcement system</td> <td style="text-align: right;">275127</td> </tr> <tr> <td><b>Ultra-short throw interactive projector</b></td> <td style="text-align: right;">274119</td> </tr> <tr> <td><b>Wireless access point (WAP) as determined by Design – refer to Note 4</b></td> <td style="text-align: right;"><b>272133</b></td> </tr> <tr> <td><b>Classroom technology center video port</b></td> <td style="text-align: right;"><b>271543, 274116, 274119, 275127</b></td> </tr> <tr> <td><b>Duplex receptacle with dedicated circuit for wireless devices</b></td> <td></td> </tr> </table> <p><u>Miscellaneous:</u></p> <table border="0"> <tr> <td>Pencil sharpener (optional)</td> <td></td> </tr> </table>	<u>FEATURES<sup>1</sup>:</u>	Spec.	<u>Fixed Items:</u>	<u>Ref.#</u>	24' of marker board, tack board, or tackable wall surface	101100	30' of sink base cabinets w/2 sinks	123550	30' of wall cabinets	123550	Pencil sharpener support (optional)	062000	Windows with integral blinds	085113	Projection screen, 6'x8'	115213	(2) Paper towel dispensers	102813	Fire suppression system	211000	Plumbing connections	221116/221119/224000	Supply/return air system	Div. 23	Independent temperature control	230923	Fluorescent lighting	265100	Illumination level: See Table 8600-4		Multilevel switching	262726	6 duplex receptacles	262726	Double duplex receptacle adjacent to each data and video port	262726	1 <b>projector</b> video port	271543	1 voice port and phone	271513/273123	1 data port near teacher workstation	271513	<b>Wireless access point cable above ceiling</b>	271513	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	<b>Ultra-short throw interactive projector</b>	274119	<b>Wireless access point (WAP) as determined by Design – refer to Note 4</b>	<b>272133</b>	<b>Classroom technology center video port</b>	<b>271543, 274116, 274119, 275127</b>	<b>Duplex receptacle with dedicated circuit for wireless devices</b>		Pencil sharpener (optional)	
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Double duplex receptacle adjacent to each data and video port	262726																																																																														
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<b>Wireless access point (WAP) as determined by Design – refer to Note 4</b>	<b>272133</b>																																																																														
<b>Classroom technology center video port</b>	<b>271543, 274116, 274119, 275127</b>																																																																														
<b>Duplex receptacle with dedicated circuit for wireless devices</b>																																																																															
Pencil sharpener (optional)																																																																															

- NOTES:**
1. Finishes/Features: Refer to Chapter 9 for specification references.
  2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**J4 / 07.0103 DENTAL LABORATORY TECHNOLOGY**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P2-1**

<b><u>PROGRAM DESCRIPTION:</u></b>		<b>Spec.</b>
Utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Introduces subject matter and experiences in producing restorative appliances authorized by a dentist.		<b>Ref.#</b>
<b>Program Type:</b>	2	
<b>Size Requirements:</b>	1,500 SF Lab	
<b>Lab Requirements:</b>		
<b><u>FINISHES:</u></b>	<b>Spec.</b>	
	<b>Ref #</b>	
<b>Flooring:</b>		
ET, rubber, linoleum, sheet vinyl,	096500	
polished concrete finishing,	096516	
or colored concrete finishing	033510	
	033519	
<b>Base:</b>		
Resilient	096500	
<b>Ceiling:</b>		
Suspended acoustical	095113	
<b>Walls:</b>		
Painted concrete masonry units	042000/ 099100	
<b><u>LOOSE FURNISHINGS:</u></b>		
(24) Student stools/chairs		
(1) Teacher chair or stool		
(6) 4-person work tables with epoxy tops with gas and electric		
Wastebasket		
<b><u>Electronic Safety and Security:</u></b>		
Life safety devices per code	283111	
<b><u>Miscellaneous:</u></b>		
Pencil sharpener (optional)		
Duplex receptacle with dedicated circuit for wireless devices		
		<b>FEATURES<sup>1</sup>:</b>
		<b>Fixed Items:</b>
		24' of marker board, tack board, or tackable wall surface
		101100
		40' of sink base cabinets with 6 sinks and natural gas
		123550
		40' of wall cabinets
		123550
		(6) Paper towel dispensers
		102813
		Pencil sharpener support (optional)
		062000
		Windows with integral blinds
		085113
		Projection screen, 6'x8'
		115213
		<b>Fire Suppression:</b>
		Fire suppression system
		211000
		<b>Plumbing:</b>
		Plumbing connections
		221116/221119/224000
		Safety shower/eyewash connections
		224000
		Master shut-off for gas
		226313
		Gas connections
		226313
		<b>HVAC:</b>
		Supply/return air system
		Div. 23
		Independent temperature control
		230923
		Grinding machine ventilation
		Div. 23
		Localized ventilation for specific lab-produced fumes
		Div. 23
		<b>Electrical:</b>
		<b>Fluorescent lighting</b>
		265100
		illumination level: See Table 8600-5
		Multilevel switching
		262726
		30 duplex receptacles (minimum)
		262726
		Double duplex receptacle adjacent to each data and video port
		262726
		<b>Communications:</b>
		1 projector video port
		271543
		1 voice port and phone
		271513/273123
		Wireless access point cable above ceiling
		271513
		Clock
		275313
		Central sound system
		275123
		Sound reinforcement system
		275127
		Ultra-short throw interactive projector
		274119
		Wireless access point (WAP) as determined by Design – refer to Note 4
		272133
		Classroom technology center video port
		271543, 274116, 274119, 275127

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**P3 /17.2811 EMERGENCY MEDICAL TECHNICIAN - SECONDARY**

**CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Utilizing business and industry, math, science, and technology standards, instructs to the level of EMT-Basic. This course must include the Ohio Department of Public Safety approved EMT-Basic curriculum and be provided through an accredited ODPS provider. This course is a minimum of 450 hours with the ODPS curriculum limited to the senior level.	<b>FEATURES<sup>1</sup>:</b> <b>Fixed Items:</b>	Spec. Ref.#
<b>Program Type:</b>	2	24' of marker board, tack board, or tackable wall surface 101100 30' of sink base cabinets w/2 sinks 123550 30' of wall cabinets 123550 Pencil sharpener support (optional) 062000 Windows with integral blinds 085113 Projection screen, 6'x8' 115213 (2) Paper towel dispensers 102813	
<b>Size Requirements:</b>	1,500 SF Lab	<b>Fire Suppression:</b> Fire suppression system 211000	
<b>Lab Requirements:</b>		<b>Plumbing:</b> Plumbing connections 221116/221119/224000	
<b><u>FINISHES:</u></b>	Spec. Ref #	<b>HVAC:</b> Supply/return air system Div. 23 Independent temperature control 230923	
<b>Flooring:</b>	ET, rubber, sheet vinyl, linoleum, 096500 polished concrete finishing, 096516 or colored concrete finishing 033510 Optional: carpet 033519 096816	<b>Electrical:</b> Fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 6 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726	
<b>Base:</b>	Resilient 096500	<b>Communications:</b> 1 <b>projector</b> video port 271543 1 voice port and phone 271513/273123 1 data port near teacher workstation 271513 <b>Wireless access point cable above ceiling</b> 271513	
<b>Ceiling:</b>	Suspended acoustical 095113	Clock 275313 Central sound system 275123 Sound reinforcement system 275127 <b>Ultra-short throw interactive projector</b> 274119	
<b>Walls:</b>	Painted concrete masonry units 042000/ 099100	<b>Wireless access point (WAP) as determined by Design – refer to Note 4</b> 272133 <b>Classroom technology center video port</b> 271543, 274116, 274119, 275127	
<b><u>LOOSE FURNISHINGS:</u></b>	(12) Two-person work tables (24) Students chairs/stools (1) Teacher station & chair Wastebasket	<b>Duplex receptacle with dedicated circuit for wireless devices</b>	
<b><u>Electronic Safety and Security:</u></b>	Life safety devices per code 283111		
<b><u>Miscellaneous:</u></b>	Pencil sharpener (optional)		

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**J6 / 07.0410 EXERCISE SCIENCE AND SPORTS MEDICINE**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P2-1**

<p><b><u>PROGRAM DESCRIPTION:</u></b> Utilizing business and industry technical standards and math, science, ELA, and technology framework in the study of organ systems, study of movement &amp; associated functional response and adaptations, understanding scientific basis underlying exercise-induced physiological responses in athletic training, biomechanics, exercise physiology and nutrition for the prevention, diagnosis, and treatment of injuries.</p> <p><b>Program Type:</b> 2</p> <p><b>Size Requirements:</b> 1,500 SF Lab</p> <p><b>Lab Requirements:</b></p> <p><b><u>FINISHES:</u></b></p> <p>Flooring:</p> <table border="0"> <tr> <td>ET, rubber, sheet vinyl, linoleum, polished concrete finishing, or colored concrete finishing</td> <td align="right">Spec. Ref #</td> </tr> <tr> <td>Optional: carpet</td> <td align="right">096500 096516 033510 033519 096816</td> </tr> </table> <p>Base:</p> <table border="0"> <tr> <td>Resilient</td> <td align="right">096500</td> </tr> </table> <p>Ceiling:</p> <table border="0"> <tr> <td>Suspended acoustical</td> <td align="right">095113</td> </tr> </table> <p>Walls:</p> <table border="0"> <tr> <td>Painted concrete masonry units</td> <td align="right">042000/ 099100</td> </tr> </table> <p><b><u>LOOSE FURNISHINGS:</u></b></p> <p>(10) Training tables (24) Students chairs/stools (1) Teacher station &amp; chair Wastebasket</p> <p><b><u>Electronic Safety and Security:</u></b></p> <table border="0"> <tr> <td>Life safety devices per code</td> <td align="right">283111</td> </tr> </table> <p><b><u>Miscellaneous:</u></b></p> <p>Pencil sharpener (optional)</p>	ET, rubber, sheet vinyl, linoleum, polished concrete finishing, or colored concrete finishing	Spec. Ref #	Optional: carpet	096500 096516 033510 033519 096816	Resilient	096500	Suspended acoustical	095113	Painted concrete masonry units	042000/ 099100	Life safety devices per code	283111	<p align="right">Spec. Ref.#</p> <p><b><u>FEATURES<sup>1</sup>:</u></b></p> <p><b><u>Fixed Items:</u></b></p> <table border="0"> <tr> <td>24' of marker board, tack board, or tackable wall surface</td> <td align="right">101100</td> </tr> <tr> <td>30' of sink base cabinets w/2 sinks</td> <td align="right">123550</td> </tr> <tr> <td>30' of wall cabinets</td> <td align="right">123550</td> </tr> <tr> <td>Pencil sharpener support (optional)</td> <td align="right">062000</td> </tr> <tr> <td>Windows with integral blinds</td> <td align="right">085113</td> </tr> <tr> <td>Projection screen, 6'x8'</td> <td align="right">115213</td> </tr> <tr> <td>(2) Paper towel dispensers</td> <td align="right">102813</td> </tr> </table> <p><b><u>Fire Suppression:</u></b></p> <table border="0"> <tr> <td>Fire suppression system</td> <td align="right">211000</td> </tr> </table> <p><b><u>Plumbing:</u></b></p> <table border="0"> <tr> <td>Plumbing connections</td> <td align="right">221116/221119/224000</td> </tr> </table> <p><b><u>HVAC:</u></b></p> <table border="0"> <tr> <td>Supply/return air system</td> <td align="right">Div. 23</td> </tr> <tr> <td>Independent temperature control</td> <td align="right">230923</td> </tr> </table> <p><b><u>Electrical:</u></b></p> <table border="0"> <tr> <td>Fluorescent lighting</td> <td align="right">265100</td> </tr> <tr> <td>illumination level: See Table 8600-5</td> <td></td> </tr> <tr> <td>Multilevel switching</td> <td align="right">262726</td> </tr> <tr> <td>6 duplex receptacles</td> <td align="right">262726</td> </tr> <tr> <td>Double duplex receptacle adjacent to each data and video port</td> <td align="right">262726</td> </tr> </table> <p><b><u>Communications:</u></b></p> <table border="0"> <tr> <td>1 projector video port</td> <td align="right">271543</td> </tr> <tr> <td>1 voice port and phone</td> <td align="right">271513/273123</td> </tr> <tr> <td>1 data port near teacher workstation</td> <td align="right">271513</td> </tr> <tr> <td>Wireless access point cable above ceiling</td> <td align="right">271513</td> </tr> <tr> <td>Clock</td> <td align="right">275313</td> </tr> <tr> <td>Central sound system</td> <td align="right">275123</td> </tr> <tr> <td>Sound reinforcement system</td> <td align="right">275127</td> </tr> <tr> <td>Ultra-short throw interactive projector</td> <td align="right">274119</td> </tr> <tr> <td>Wireless access point (WAP) as determined by Design – refer to Note 4</td> <td align="right">272133</td> </tr> <tr> <td>Classroom technology center video port</td> <td align="right">271543, 274116, 274119, 275127</td> </tr> <tr> <td>Duplex receptacle with dedicated circuit for wireless devices</td> <td></td> </tr> </table>	24' of marker board, tack board, or tackable wall surface	101100	30' of sink base cabinets w/2 sinks	123550	30' of wall cabinets	123550	Pencil sharpener support (optional)	062000	Windows with integral blinds	085113	Projection screen, 6'x8'	115213	(2) Paper towel dispensers	102813	Fire suppression system	211000	Plumbing connections	221116/221119/224000	Supply/return air system	Div. 23	Independent temperature control	230923	Fluorescent lighting	265100	illumination level: See Table 8600-5		Multilevel switching	262726	6 duplex receptacles	262726	Double duplex receptacle adjacent to each data and video port	262726	1 projector video port	271543	1 voice port and phone	271513/273123	1 data port near teacher workstation	271513	Wireless access point cable above ceiling	271513	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	Ultra-short throw interactive projector	274119	Wireless access point (WAP) as determined by Design – refer to Note 4	272133	Classroom technology center video port	271543, 274116, 274119, 275127	Duplex receptacle with dedicated circuit for wireless devices	
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**J8 / 07.4840 HEALTH SUPPORT PATHWAY**  
**JL / 07.4830 THERAPEUTIC PATHWAY**  
**CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b><u>PROGRAM DESCRIPTION:</u></b>  <u>HSP:</u> Utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Instruction includes concepts, subject matter, and experiences for health support services careers, including operation, resource management, and esthetics and aseptic procedures of the physical plant to ensure a healthy and well-equipped environment in healthcare.  <u>TP:</u> A clustered program utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Instruction includes concepts, subject matter and experiences in health careers that focus on care and treatment of individuals for the promotion and maintenance of wellness; and the prevention and treatment of physical, mental, and emotional disorders.</p> <p><b>Program Type:</b> 2</p> <p><b>Size Requirements:</b> 1,500 SF Lab</p> <p><b>Lab Requirements:</b></p> <table border="0"> <tr> <td><b><u>FINISHES:</u></b></td> <td style="text-align: right;">Spec.</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>Ref #</u></td> </tr> <tr> <td>Flooring:</td> <td></td> </tr> <tr> <td>ET, rubber, sheet vinyl, linoleum</td> <td style="text-align: right;">096500</td> </tr> <tr> <td>polished concrete finishing,</td> <td style="text-align: right;">096516</td> </tr> <tr> <td>or colored concrete finishing</td> <td style="text-align: right;">033510</td> </tr> <tr> <td></td> <td style="text-align: right;">033519</td> </tr> <tr> <td>Base:</td> <td></td> </tr> <tr> <td>Resilient</td> <td style="text-align: right;">096500</td> </tr> <tr> <td>Ceiling:</td> <td></td> </tr> <tr> <td>Suspended acoustical</td> <td style="text-align: right;">095113</td> </tr> <tr> <td>Walls:</td> <td></td> </tr> <tr> <td>Painted concrete masonry units</td> <td style="text-align: right;">042000/ 099100</td> </tr> </table> <p><b><u>LOOSE FURNISHINGS:</u></b>  (12) Two-person work tables  (24) Students chairs/stools  (1) Teacher station &amp; chair  Wastebasket</p>	<b><u>FINISHES:</u></b>	Spec.		<u>Ref #</u>	Flooring:		ET, rubber, sheet vinyl, linoleum	096500	polished concrete finishing,	096516	or colored concrete finishing	033510		033519	Base:		Resilient	096500	Ceiling:		Suspended acoustical	095113	Walls:		Painted concrete masonry units	042000/ 099100	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><b><u>FEATURES<sup>1</sup>:</u></b>  <b><u>Fixed Items:</u></b>  24' of marker board, tack board,  or tackable wall surface 101100  30' of sink base cabinets w/2 sinks 123550  30' of wall cabinets 123550  Pencil sharpener support (optional) 062000  Windows with integral blinds 085113  Projection screen, 6'x8' 115213  (2) Paper towel dispensers 102813</p> <p><b><u>Fire Suppression:</u></b>  Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b>  Plumbing connections  221116/221119/224000</p> <p><b><u>HVAC:</u></b>  Supply/return air system Div. 23  Independent temperature control 230923</p> <p><b><u>Electrical:</u></b>  Fluorescent lighting 265100  Illumination level: See Table 8600-5  Multilevel switching 262726  6 duplex receptacles 262726  Double duplex receptacle adjacent to  each data and video port 262726</p> <p><b><u>Communications:</u></b>  1 <b>projector</b> video port 271543  1 voice port and phone 271513/273123  1 data port near teacher workstation 271513  <b><i>Wireless access point cable above ceiling</i></b>  271513  Clock 275313  Central sound system 275123  Sound reinforcement system 275127  <b><i>Ultra-short throw interactive projector</i></b>  274119  <b><i>Wireless access point (WAP) as  determined by Design – refer to Note 4</i></b>  <b>272133</b>  <b><i>Classroom technology center video port</i></b>  <b>271543, 274116, 274119, 275127</b></p> <p><b><u>Electronic Safety and Security:</u></b>  Life safety devices per code 283111</p> <p><b><u>Miscellaneous:</u></b> Pencil sharpener (optional)  <b><i>Duplex receptacle with dedicated  circuit for wireless devices</i></b></p>
<b><u>FINISHES:</u></b>	Spec.																										
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**J7 / 07.4890 HEALTH INFORMATION MANAGEMENT  
J9 / 07.0913 HEALTH UNIT COORDINATOR**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P2-1**

**PROGRAM DESCRIPTION:**

**HIMS:** A clustered program utilizing business and industry technical standards, math, science, ELA, social studies, and technology within a business process framework. Introduces concepts, subject matter, and experiences for health careers that focus on compilation, maintenance and retrieval of records, and reports and statistical data on health services.

**HUC:** Utilizing business and industry technical standards, math, science, ELA, social studies, and technology within a business process framework. Introduces concepts, subject matter, and experiences to manage components of non-patient care activities in health care facilities.

**Program Type:** 2  
**Size Requirements:** 1,500 SF Lab  
**Lab Requirements:**

	Spec. Ref #
<b><u>FINISHES:</u></b>	
Flooring:	
ET, rubber, linoleum, sheet vinyl,	096500
polished concrete finishing,	096516
or colored concrete finishing	033510
	033519
Base:	
Resilient	096500
Ceiling:	
Suspended acoustical	095113
Walls:	
Painted concrete masonry units	042000/ 099100

**LOOSE FURNISHINGS:**

- L1 (24) Student stools/chairs
- L2 (1) Teacher chair or stool
- L3 (4) Computer workstations
- L4 (12) 2-person work tables with epoxy tops with gas and electric Wastebasket

**Electronic Safety and Security:**

Life safety devices per code 283111

**Miscellaneous:** Pencil sharpener (optional)

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

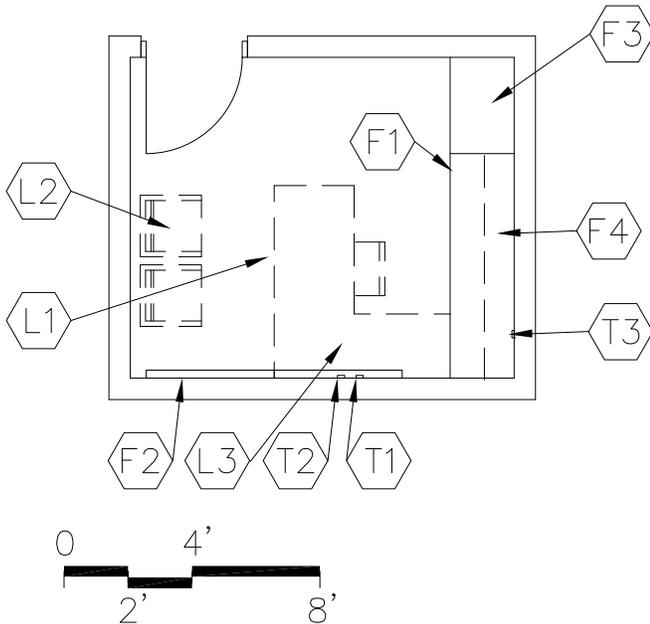
**FEATURES<sup>1</sup>:**

		Spec. Ref.#
<b><u>Fixed Items:</u></b>		
F1	24' of marker board, tack board, or tackable wall surface	101100
F2	Projection screen, 6'x8'	115213
F3	Demonstration table/teacher desk	123550
F4	60' of perimeter sink base cabinets with 5 sinks	123550
F5	30' of wall cabinets	123550
F6	(5) Paper towel dispensers	102813
F7	Safety shower/eyewash	224500
F8	Pencil sharpener support (optional)	062000
F9	Windows with integral blinds	085113
F10	Undercounter refrigerator	113100
<b><u>Fire Suppression:</u></b>		
	Fire suppression system	211000
<b><u>Plumbing:</u></b>		
	Plumbing connections	221116/221119/224000
	Safety shower/eyewash connections	224000
	Master shut-off for gas	226313
	Gas connections	226313
<b><u>HVAC:</u></b>		
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Manual exhaust	Div. 23
<b><u>Electrical:</u></b>		
	Fluorescent lighting:	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	6 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	Means of egress lighting per code	265100
<b><u>Communications:</u></b>		
T1	1 projector video port	271543
T2	1 voice port and phone	271513/273123
T3	1 data port at demonstration table	271513
T4	Wireless access point cable above ceiling	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
T5	Overhead projector	274119
T6	Wireless access point (WAP) as determined by Design – refer to Note 4	272133
T7	Classroom technology center video port	271543, 274116, 274119, 275127
E1	Duplex receptacle with dedicated circuit for wireless devices	

<p><b><u>PROGRAM DESCRIPTION:</u></b>  A combination of subject matter and supervised clinical experiences designed to prepare a person to give direct nursing care under the supervision of a registered nurse, licensed physician, or dentist. Instruction includes safety and infection control, first-aid and CPR, legal and ethical responsibilities, coordinated care, goal-oriented care, environmental safety, treatments and procedures, physiological adaptation, mobility, comfort, basic care, psychosocial adaptation, growth and development, prevention and early treatment of disease, and reduction of risk potential.</p> <p><b>Program Type:</b> 2  <b>Size Requirements:</b> 1,500 SF Lab  <b>Lab Requirements:</b></p> <table border="0"> <tr> <td><b><u>FINISHES:</u></b></td> <td>Spec.</td> </tr> <tr> <td><b>Flooring:</b></td> <td><b><u>Ref #</u></b></td> </tr> <tr> <td>ET, rubber,</td> <td>096500</td> </tr> <tr> <td>sheet vinyl, or linoleum</td> <td>096516</td> </tr> <tr> <td><b>Base:</b></td> <td></td> </tr> <tr> <td>Resilient</td> <td>096500</td> </tr> <tr> <td><b>Ceiling:</b></td> <td></td> </tr> <tr> <td>Suspended acoustical</td> <td>095113</td> </tr> <tr> <td><b>Walls:</b></td> <td></td> </tr> <tr> <td>Painted concrete masonry units</td> <td>042000/ 099100</td> </tr> </table> <p><b><u>LOOSE FURNISHINGS:</u></b>  (12) Two-person work tables  (24) Students chairs/stools  (1) Teacher station &amp; chair  Wastebasket</p> <p><b><u>Electronic Safety and Security:</u></b>  Life safety devices per code 283111</p> <p><b><u>Miscellaneous:</u></b>  Pencil sharpener (optional)</p> <p>Duplex receptacle with dedicated circuit for wireless devices</p>	<b><u>FINISHES:</u></b>	Spec.	<b>Flooring:</b>	<b><u>Ref #</u></b>	ET, rubber,	096500	sheet vinyl, or linoleum	096516	<b>Base:</b>		Resilient	096500	<b>Ceiling:</b>		Suspended acoustical	095113	<b>Walls:</b>		Painted concrete masonry units	042000/ 099100	<p><b><u>FEATURES<sup>1</sup>:</u></b>  <b><u>Fixed Items:</u></b></p> <table border="0"> <tr> <td>24' of marker board, tack board, or tackable wall surface</td> <td>101100</td> </tr> <tr> <td>30' of sink base cabinets w/2 sinks</td> <td>123550</td> </tr> <tr> <td>30' of wall cabinets</td> <td>123550</td> </tr> <tr> <td>Pencil sharpener support (optional)</td> <td>062000</td> </tr> <tr> <td>Windows with integral blinds</td> <td>085113</td> </tr> <tr> <td>Projection screen, 6'x8'</td> <td>115213</td> </tr> <tr> <td>(2) Paper towel dispensers</td> <td>102813</td> </tr> </table> <p><b><u>Fire Suppression:</u></b></p> <table border="0"> <tr> <td>Fire suppression system</td> <td>211000</td> </tr> </table> <p><b><u>Plumbing:</u></b></p> <table border="0"> <tr> <td>Plumbing connections</td> <td>221116/221119/224000</td> </tr> </table> <p><b><u>HVAC:</u></b></p> <table border="0"> <tr> <td>Supply/return air system</td> <td>Div. 23</td> </tr> <tr> <td>Independent temperature control</td> <td>230923</td> </tr> </table> <p><b><u>Electrical:</u></b></p> <table border="0"> <tr> <td>Fluorescent lighting</td> <td>265100</td> </tr> <tr> <td>Illumination level: See Table 8600-5</td> <td></td> </tr> <tr> <td>Multilevel switching</td> <td>262726</td> </tr> <tr> <td>6 duplex receptacles</td> <td>262726</td> </tr> <tr> <td>Double duplex receptacle adjacent to each data and video port</td> <td>262726</td> </tr> </table> <p><b><u>Communications:</u></b></p> <table border="0"> <tr> <td>1 projector video port</td> <td>271543</td> </tr> <tr> <td>1 voice port and phone</td> <td>271513/273123</td> </tr> <tr> <td>1 data port near teacher workstation</td> <td>271513</td> </tr> <tr> <td>Wireless access point cable above ceiling</td> <td>271513</td> </tr> <tr> <td>Clock</td> <td>275313</td> </tr> <tr> <td>Central sound system</td> <td>275123</td> </tr> <tr> <td>Sound reinforcement system</td> <td>275127</td> </tr> <tr> <td>Ultra-short throw interactive projector</td> <td>274119</td> </tr> <tr> <td>Wireless access point (WAP) as determined by Design – refer to Note 4</td> <td>272133</td> </tr> <tr> <td>Classroom technology center video port</td> <td>271543, 274116, 274119, 275127</td> </tr> </table>	24' of marker board, tack board, or tackable wall surface	101100	30' of sink base cabinets w/2 sinks	123550	30' of wall cabinets	123550	Pencil sharpener support (optional)	062000	Windows with integral blinds	085113	Projection screen, 6'x8'	115213	(2) Paper towel dispensers	102813	Fire suppression system	211000	Plumbing connections	221116/221119/224000	Supply/return air system	Div. 23	Independent temperature control	230923	Fluorescent lighting	265100	Illumination level: See Table 8600-5		Multilevel switching	262726	6 duplex receptacles	262726	Double duplex receptacle adjacent to each data and video port	262726	1 projector video port	271543	1 voice port and phone	271513/273123	1 data port near teacher workstation	271513	Wireless access point cable above ceiling	271513	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	Ultra-short throw interactive projector	274119	Wireless access point (WAP) as determined by Design – refer to Note 4	272133	Classroom technology center video port	271543, 274116, 274119, 275127
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Based on curriculum needs, a training restroom and laundry room may be included with this program in the allotted square footage for the lab. Space plates for training restroom and laundry room can be found on pages 6314-41 and 6314-42 – Patient Care Technician.
3. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.



PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P2-2**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271513
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

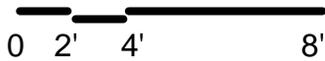
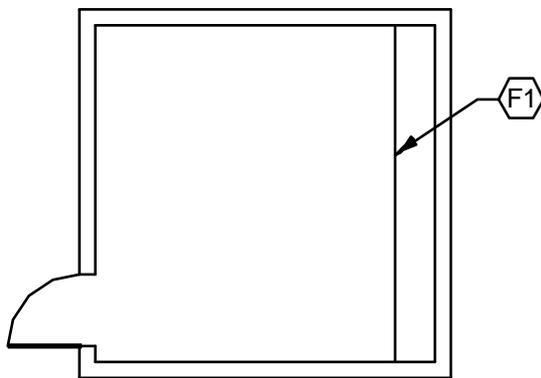
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:  
SIZE:

N/A  
200 SF

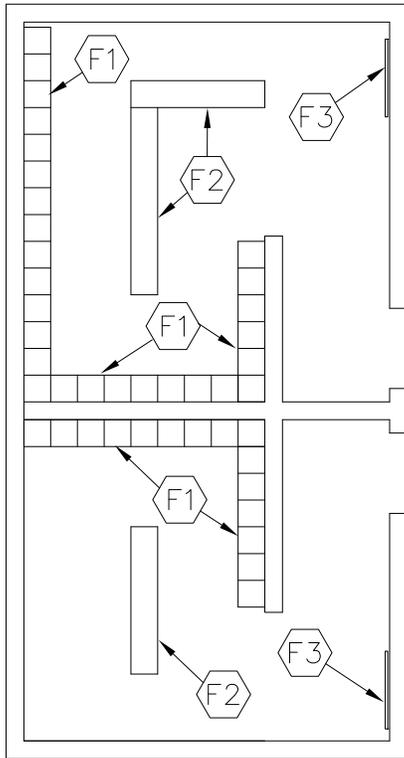
NOTES:

**STORAGE AREA  
CT-P2-3**

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



50 total lockers

**PROGRAM ACTIVITIES:**

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
Wall minimum STC 40  
Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
450 SF

**NOTES:**

1. Large and small changing areas are interchangeable for either males or females. Determination based on male/female ratio within each program.

**CHANGING ROOM  
CT-P2-4**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items<sup>1</sup>:</u>	
Polished concrete finishing, or colored concrete finishing	033510 033519	F1 Student lockers	105113
Optional: linoleum or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical with high impact hold down clips	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Supply/Return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-6	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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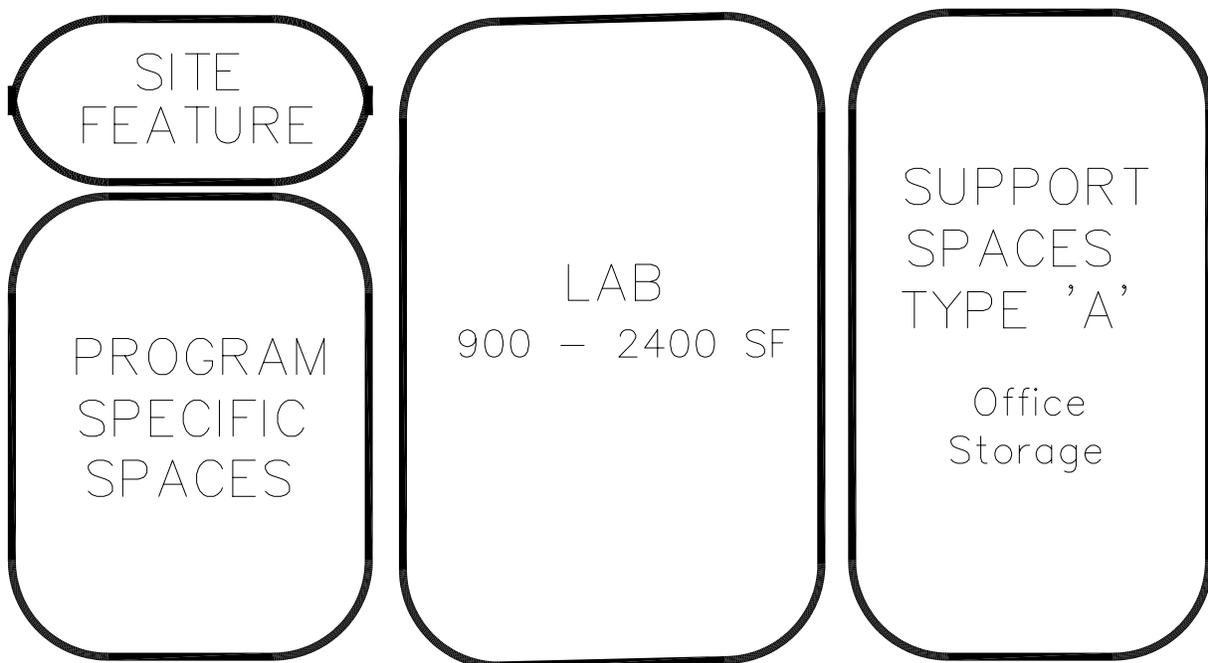
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**Program Type 3**

Description: Small to medium sized lab space with typical support space. Additionally, this program requires specialized auxiliary spaces and possible site features.

This program is to utilize standard construction and be one-story (16' +/- tall) tall. Lab, support, and specialty spaces to have finished floor, painted walls, and suspended acoustical ceiling.

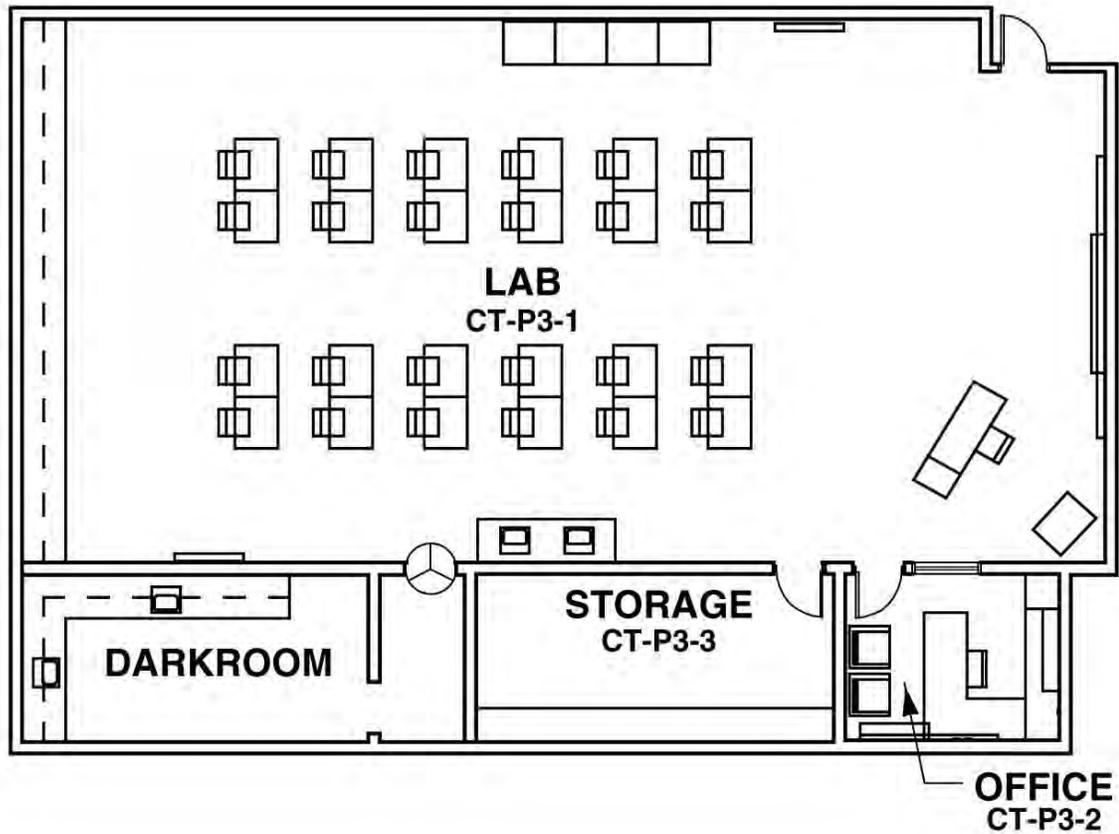


## NOTES:

This is an example of how the Program Type 3 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 3 space plates:

- CT-P3-1 Lab
- CT-P3-2 Office
- CT-P3-3 Storage

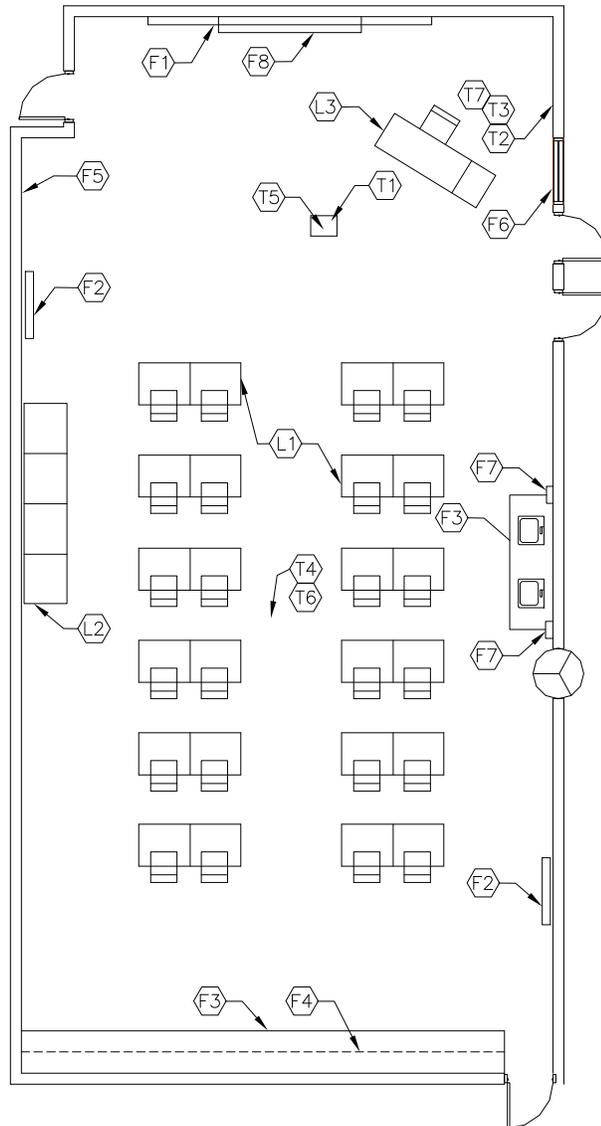


**Program Type 3**

This is an example to show the possible relationships of spaces for this program type.

**NOTES:**

1. See lab descriptions within this section for specific lab requirements, including program specific rooms.
2. See individual space plates at the end of this section for specific requirements for the storage room and office.



CAPACITY:	24 Students
SIZE:	900 – 2,400 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P3-2 and CT-P3-3

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION  
CT-P3-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Preparation for employment in childcare services, child development, and early childhood education within the childcare and guidance industries.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	3	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	1,500 SF Lab	32' of marker board, tack board, or tackable wall surface	101100
<b>Lab Requirements:</b>	Spec.	30' of wall cabinets	123550
<b><u>FINISHES:</u></b>	<b><u>Ref #</u></b>	30' of sink base cabinets with 1 sink	123550
<b>Flooring:</b>	096816	10' of reception counter	123550
30% Carpet	096500	10' of toddler height sink base cabinets with 1 sink	123550
70% ET, sheet vinyl, or linoleum	096516	Pencil sharpener support (optional)	062000
<b>Base:</b>	096500	Windows with integral blinds	085113
Resilient	095113	(2) Paper towel dispensers	102813
<b>Ceiling:</b>	095113	Projection screen, 6'x8'	115213
Suspended acoustical	042000/ 099100	<b><u>Fire Suppression:</u></b>	211000
<b>Walls:</b>	096500	Fire suppression system	224000
Painted concrete masonry units	095113	<b><u>Plumbing:</u></b>	224000
<b><u>LOOSE FURNISHINGS:</u></b>	095113	Plumbing connections	224000
Wastebasket	095113	221116/221119/224000	224000
<b><u>Electronic Safety and Security:</u></b>	283111	<b><u>HVAC:</u></b>	Div. 23
Life safety devices per code	095113	Supply/return air system	230923
<b><u>Miscellaneous:</u></b>	095113	<b><u>Electrical:</u></b>	265100
Pencil sharpener (optional)	095113	Fluorescent lighting	262726
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>	095113	Illumination level: See Table 8600-5	262726
<b><u>NOTES:</u></b>	095113	Multilevel switching	262726
1. Finishes/Features: Refer to Chapter 9 for specification references.	095113	10 duplex receptacles	262726
2. <b><i>Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.</i></b>	095113	Double duplex receptacle adjacent to each data and video port	262726
<b><u>Electronic Safety and Security:</u></b>	283111	<b><u>Communications:</u></b>	271543
Life safety devices per code	283111	1 <b><i>projector</i></b> video port	271513
<b><u>Miscellaneous:</u></b>	095113	1 voice port and phone	271513/273123
Pencil sharpener (optional)	095113	<b><i>Wireless access point cable above ceiling</i></b>	271513
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>	095113	Clock	275313
<b><u>NOTES:</u></b>	095113	Central sound system	275123
1. Finishes/Features: Refer to Chapter 9 for specification references.	095113	Sound reinforcement system	275127
2. <b><i>Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.</i></b>	095113	<b><i>Ultra-short throw interactive projector</i></b>	274119
<b><u>Electronic Safety and Security:</u></b>	283111	<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b>	272133
Life safety devices per code	283111	<b><i>Classroom technology center video port</i></b>	271543, 274116, 274119, 275127
<b><u>Miscellaneous:</u></b>	095113	<b><i>Classroom technology center video port</i></b>	271543, 274116, 274119, 275127
Pencil sharpener (optional)	095113	<b><i>Classroom technology center video port</i></b>	271543, 274116, 274119, 275127

SITE FEATURES:

Playground Area

- Provide 60 SF per child served
- Follow applicable safety guidelines for different age groups.
- Plan for play activities that include rocking, swinging, balancing, climbing, and sliding.
- Locate equipment with moving parts, such as swings, at the perimeter of the play area. Use fence or planting beds to prevent children from inadvertently stepping into path of moving equipment.
- Surfacing is to be resilient and installed at a sufficient depth to meet current safety guidelines. It should be a non-splintering surface where children may be crawling. Avoid using black surfacing.
- Provide edging to keep loose soft surfacing within bounds of the play area. Depress soft surfacing material below edging. Provide underground drain system and geotextile below soft surfacing.
- Increase the depth of soft surface material in areas of high use such as the base of swings and slides.
- Possible play equipment includes the following: swing set, modular play structure, tot track, four square, and hop scotch.
- Protect entire play area with fencing.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION  
Observation Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 3	<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 120 SF	<u>Fixed Items:</u>	<u>Ref.#</u>
<b>Requirements:</b>	Interior window with one-way glass	081113/088000
<u>FINISHES:</u>	<u>Fire Suppression:</u>	123550
Flooring:	Fire suppression system	211000
Carpet	<u>Plumbing:</u>	N/A
Option: Rubber	Spec.	<u>HVAC:</u>
Base:	<u>Ref #</u>	Supply/return air system
Resilient	096816	Div. 23
Ceiling:	096500	Independent temperature control
Suspended acoustical	095113	230923
Walls:	<u>Electrical:</u>	Fluorescent lighting
Painted concrete masonry units	042000/ 099100	Illumination level: See Table 8600-5
<u>LOOSE FURNISHINGS:</u>	<u>Communications:</u>	Single level switching
5 stools	Central sound system	262726
<u>ENVIRONMENTAL CONSIDERATIONS:</u>	<u>Electronic Safety and Security:</u>	275123
<ul style="list-style-type: none"> <li>Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> </ul>	Life safety devices per code	283111
<ul style="list-style-type: none"> <li>Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>	<u>Miscellaneous:</u>	N/A

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION**  
**Infants Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec.
		Ref.#
<b>Program Type:</b>	3	
<b>Size Requirements:</b>	700 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	Spec.	
	<u>Ref #</u>	
Flooring:		
Carpet	096816	
ET, sheet vinyl	096500	
or linoleum at sink	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Staff chair		
12' of bookcases		
3 playpens		
12 cribs		
2 rocking chairs		
Table 18"x24"x18"		
Stool		
File cabinet		
Wastebasket		
<b>ENVIRONMENTAL CONSIDERATIONS:</b>		
• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.		
Recommended: Daylighting design with glazing area determined by design solution.		
• Environmental sound control -		
wall only minimum STC 45		
ceiling minimum CAC 35, NRC 0.70		
		<b>FEATURES<sup>1</sup>:</b>
		<u>Fixed Items:</u>
		14' of base cabinets w/1 sink 123550
		4' of baby changing area 123550
		w/3" high edges and pad
		10' of wall cabinets 123550
		Interior window 088000/081113
		28' of marker board, tack board, or
		tackable wall surface 101100
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Baby washing sink 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-5
		Multilevel switching 262726
		10 duplex receptacles 262726
		Double duplex receptacle adjacent to
		each data and video port 262726
		<u>Communications:</u>
		1 <b>projector</b> video port 271543
		1 voice port and phone 271513/273123
		1 data port 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION  
Kitchen/Break Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 3</p> <p><b>Size Requirements:</b> 350 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: ET, sheet vinyl, or linoleum</p> <p>Base: Resilient</p> <p>Ceiling: Suspended acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> 2 Work tables Staff table and chairs Refrigerator/freezer Range and oven Microwave Dishwasher</p> <p><b>ENVIRONMENTAL CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u> <u>Fixed Items:</u> 30' of base cabinets w/1 sink 123550 30' of tall storage cabinets 123550 9' of wall cabinets 123550 1 Coiling counter door 083300 4' of tack board 101100 Paper towel dispenser 102813</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> Plumbing connections 221116/221119/224000</p> <p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923 Kitchen exhaust system Div. 23</p> <p><u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-5 Single level switching 262726 4 duplex receptacles 262726</p> <p><u>Communications:</u> 1 voice port and phone 271513/273123 Central sound system 275123 Clock 275313</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION  
Work Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	3	
<b>Size Requirements:</b>	150 SF	
Requirements:		
<b>FINISHES:</b>	Spec. Ref #	
Flooring:		
ET, sheet vinyl, or linoleum	096500	
Optional: carpet	096516 096816	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<b>LOOSE FURNISHINGS:</b>		
Wastebasket		
<b>ENVIRONMENTAL CONSIDERATIONS:</b>		
• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.		
• Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70		
	<b>FEATURES<sup>1</sup>:</b>	
	<b>Fixed Items:</b>	
	13' of base cabinets w/1 sink	123550
	12' of tall storage cabinets	123550
	10' of mail cubicles	123550
	10' of wall cabinets	123550
	10' of open base cabinets	123550
	Paper towel dispenser	102813
	<b>Fire Suppression:</b>	
	Fire suppression system	211000
	<b>Plumbing:</b>	
	Plumbing connections	221116/221119/224000
	<b>HVAC:</b>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	<b>Electrical:</b>	
	Fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Single level switching	262726
	4 duplex receptacles	262726
	<b>Communications:</b>	
	1 voice port and phone	271513/273123
	Central sound system	275123
	Clock	275313
	<b>Electronic Safety and Security:</b>	
	Life safety devices per code	283111
	<b>Miscellaneous:</b>	
	N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION  
Toddler Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 3	<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 60 SF	<u>Fixed Items:</u>	<u>Ref.#</u>
<b>Requirements:</b>	Paper towel dispenser	102813
<u>FINISHES:</u>	Soap dispenser	102813
Flooring:	36" and 42" grab bars	102813
Rubber, linoleum, ET, or	24"x60" mirror	102813
sheet vinyl	Toilet paper holder	102813
Optional: ceramic mosaic tile,	Baby changing station	102813
porcelain tile base, or	<u>Fire Suppression:</u>	
resinous flooring	Fire suppression system	211000
Base:	<u>Plumbing:</u>	
Resilient	Toddler height sink	
Optional ceramic mosaic tile base,	Toddler height toilet	
porcelain tile base, or	Plumbing connections	221116/221119/224000
resinous flooring	<u>HVAC:</u>	
Ceiling:	Exhaust air system	Div. 23
Suspended acoustical	Supplemental heat as required	Div. 23
Walls:	<u>Electrical:</u>	
Painted concrete masonry units	Fluorescent lighting	265100
042000/ 099100	Illumination level: See Table 8600-5	
<u>LOOSE FURNISHINGS:</u>	Single level switching	262726
Wastebasket	<u>Communications:</u>	
<u>ENVIRONMENTAL CONSIDERATIONS:</u>	Central sound system	275123
▪ Wall minimum STC 48	<u>Electronic Safety and Security:</u>	
▪ Ceiling minimum CAC 35, NRC 0.70	Life safety devices per code	283111
	<u>Miscellaneous:</u>	
	N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**E0 / 35.0201 EARLY CHILDHOOD EDUCATION  
Reception**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	3	
<b>Size Requirements:</b>	500 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
Flooring:		
Carpet	096816	
Rubber in vestibule	096500	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Visitor chairs		
End table		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
		<u>FEATURES<sup>1</sup>:</u>
		<u>Fixed Items:</u>
		Interior windows 088000/081113
		4' of tack board 101100
		Literary display cabinet 123550
		Doors with power assist 087100
		Windows with integral blinds 085113
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-5
		Single level switching 262726
		2 duplex receptacles 262726
		Means of egress lighting per code 265100
		<u>Communications:</u>
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**S1 / 04.4110 ENTREPRENEURSHIP  
S3 / 04.0815 MARKETING COMMUNICATIONS  
S4 / 04.0810 MARKETING MANAGEMENT  
S0 / 04.1900 SUPPLY CHAIN MANAGEMENT**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P3-1**

<p><b>PROGRAM DESCRIPTION:</b>  <u>E:</u> Preparation for starting new ventures that create, power, and change business activity – meaning new markets, new products, new production methods, and new businesses.  <u>MC:</u> Preparation for careers that inform, remind, and/or persuade a target audience including advertising, public relations, and multimedia marketing communications.  <u>MM:</u> Educational programs in marketing management prepare learners for careers requiring broad, cross-functional knowledge of marketing and management. These functions include supply-chain management, marketing-information management, pricing product/service management, marketing communications, and selling.  <u>SCM:</u> Preparation for the strategic operation and management of marketing systems with emphasis on logistics components, including purchasing and warehousing.</p> <p><b>Program Type:</b> 3</p> <p><b>Size Requirements:</b>          1,000 SF Lab – Entrepreneurship          1,000 SF Lab – Marketing Comm.          900 SF Lab – Marketing Management          900 SF Lab – <b>Supply Chain Management</b></p> <p><b>Lab Requirements:</b> Spec.  <u>FINISHES:</u> Ref #          Flooring: Carpet 096816              Optional: ET, 096500              sheet vinyl, or linoleum 096516          Base: Resilient 096500          Ceiling: Suspended acoustical 095113          Walls:              Painted concrete masonry units 042000/              099100</p> <p><b>LOOSE FURNISHINGS:</b>          (24) Computer workstation furniture &amp; chairs          (1) Teacher station &amp; chair          Wastebasket</p> <p><b>Electronic Safety and Security:</b>          Life safety devices per code 283111</p>	<p style="text-align: right;">Spec. Ref.#</p> <p><b>FEATURES<sup>1</sup>:</b>  <u>Fixed Items:</u>              32' of marker board, tack board, or              tackable wall surface 101100              30' of wall cabinets 123550              30' of sink base cabinets w/1 sink 123550              Pencil sharpener support (optional) 062000              Windows with integral blinds 085113              Paper towel dispenser 102813              Projection screen, 6'x8' 115213</p> <p><u>Fire Suppression:</u>              Fire suppression system 211000</p> <p><u>Plumbing:</u>              Plumbing connections              221116/221119/224000</p> <p><u>HVAC:</u>              Supply/return air system Div. 23              Independent temperature control 230923</p> <p><u>Electrical:</u>              Fluorescent lighting 265100              Illumination level: See Table 8600-5              Multilevel switching 262726              10 duplex receptacles (minimum) 262726              Double duplex receptacle adjacent to              each data and video port 262726</p> <p><u>Communications:</u>              T1 1 <b>projector</b> video port 271543              T2 1 voice port and phone 271513/273123              T3 1 data port near teacher workstation 271513              T4 26 data ports 271513              Clock 275313              Central sound system 275123              Sound reinforcement system 275127              T5 <b>Ultra-short throw interactive</b> projector 274119              <b>T6 Wireless access point (WAP) as              determined by Design – refer to Note 4              272133</b>              <b>T7 Classroom technology center video port              271543, 274116, 274119, 275127              Wireless access point cable above ceiling              271513</b></p> <p><u>Miscellaneous:</u> Pencil sharpener (optional)  <b>E1 Duplex receptacle with dedicated circuit          for wireless devices</b></p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Supply Chain Management** may be taught in high bay lab if curriculum supports.
3. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**S1 / 04.4110 ENTREPRENEURSHIP**  
**S3 / 04.0815 MARKETING COMMUNICATIONS**  
**S4 / 04.0810 MARKETING MANAGEMENT**  
**Bookstore**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 3</p> <p><b>Size Requirements:</b> 800 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <p>Carpet 096816</p> <p>Optional: ET, 096500</p> <p>sheet vinyl, or linoleum 096516</p> <p>Base:</p> <p>Resilient 096500</p> <p>Ceiling:</p> <p>Suspended acoustical 095113</p> <p>Walls:</p> <p><b>Paint</b> 099100</p> <p><u>LOOSE FURNISHINGS:</u></p> <p>Stool</p> <p>Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u></p> <p>8' of plastic laminate counter 062000</p> <p>75' of base cabinet 123550</p> <p>75' of adjustable display wall system 060565</p> <p>Interior window 088000/081113</p> <p><u>Fire Suppression:</u></p> <p>Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p>N/A</p> <p><u>HVAC:</u></p> <p>Supply/return air system Div. 23</p> <p>Independent temperature control 230923</p> <p><u>Electrical:</u></p> <p>Fluorescent lighting 265100</p> <p>Illumination level: See Table 8600-5</p> <p>Track lighting 265100</p> <p>Multilevel switching 262726</p> <p>6 duplex receptacles (minimum) 262726</p> <p>Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u></p> <p>2 data ports 271513</p> <p>Clock 275313</p> <p>Central sound system 275123</p> <p><u>Electronic Safety and Security:</u></p> <p>Life safety devices per code 283111</p> <p><u>Miscellaneous:</u></p> <p>N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**04.4110 ENTREPRENEURSHIP  
04.0815 MARKETING COMMUNICATIONS  
04.0810 MARKETING MANAGEMENT**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Display**

<b>Program Type:</b> 3			Spec. <u>Ref.#</u>
<b>Size Requirements:</b> 100 SF		<u>FEATURES<sup>1</sup>:</u> <u>Fixed Items:</u> 10' of adjustable shelving 062000 Interior window 088000/081113	
<b>Requirements:</b>	Spec. <u>Ref #</u>	<u>Fire Suppression:</u> Fire suppression system 211000	
<u>FINISHES:</u>		<u>Plumbing:</u> N/A	
Flooring:		<u>HVAC:</u> Supply/return air system 23 Independent temperature control 230923	Div.
Rubber	096500		
Base:		<u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-5 Single level switching 262726 Track lighting 265100 4 duplex receptacles 262726 Double duplex receptacle adjacent to data port 262726	
Resilient	096500		
Ceiling:		<u>Communications:</u> 1 data port 271523 Central sound system 275123	
Suspended acoustical	095113		
Walls:		<u>Electronic Safety and Security:</u> Life safety devices per code 283111	
<b>Paint</b>	099100		
<u>LOOSE FURNISHINGS:</u>		<u>Miscellaneous:</u> N/A	
N/A			
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
<ul style="list-style-type: none"> <li>· Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>· Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>			

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**04.4110 ENTREPRENEURSHIP**  
**04.0815 MARKETING COMMUNICATIONS**  
**04.0810 MARKETING MANAGEMENT**  
**Display**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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<b><u>PROGRAM DESCRIPTION:</u></b>	This program is geared toward the Airport Environment and activities concerning the ground support of commercial aircraft, terminal and hanger activities.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	3	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	1,500 SF Lab	24' of marker board, tack board, or tackable wall surface 30' of wall cabinets 30' of sink base cabinets w/2 sinks Pencil sharpener support (optional) Windows with integral blinds (2) Paper towel dispensers Projection screen 6'x8'	101100 123550 123550 062000 085113 102813 115213
Lab Requirements:	Spec.	<b><u>Fire Suppression:</u></b>	
<b><u>FINISHES:</u></b>	<b><u>Ref #</u></b>	Fire suppression system	211000
Flooring:		<b><u>Plumbing:</u></b>	
Carpet	096816	Plumbing connections	221116/221119/224000
Option: ET,	096500	<b><u>HVAC:</u></b>	
sheet vinyl, or linoleum	096516	Supply/return air system	Div. 23
Base:		Independent temperature control	230923
Resilient	096500	<b><u>Electrical:</u></b>	
Ceiling:		Fluorescent lighting	265100
Suspended acoustical	095113	Illumination level: See Table 8600-5	
Walls:		Multilevel switching	262726
Painted concrete masonry units	042000/ 099100	20 duplex receptacles	262726
<b><u>LOOSE FURNISHINGS:</u></b>		Double duplex receptacle adjacent to each data and video port	262726
(24) Student stools/chairs		<b><u>Communications:</u></b>	
(12) 2-person work tables w/epoxy tops		1 <b>projector</b> video port	271543
Wastebasket		1 voice port and phone	271513/273123
<b><u>Electronic Safety and Security:</u></b>		<b><i>Wireless access point cable above ceiling</i></b>	271513
Life safety devices per code	283111	Clock	275313
<b><u>Miscellaneous:</u></b>		Central sound system	275123
Pencil sharpener (optional)		Sound reinforcement system	275127
<b>E1 Duplex receptacle with dedicated circuit for wireless devices</b>		<b><i>Ultra-short throw interactive projector</i></b>	274119
		<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b>	272133
		<b><i>Classroom technology center video port</i></b>	271543, 274116, 274119, 275127

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements**

**T5 / 17.0403 GROUND OPERATIONS**  
**Reference Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 3</p> <p><b>Size Requirements:</b> 150 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <p>Carpet 096816</p> <p>Option: ET, 096500</p> <p>sheet vinyl, or linoleum 096516</p> <p>Base:</p> <p>Resilient 096500</p> <p>Ceiling:</p> <p>Suspended acoustical 095113</p> <p>Walls:</p> <p>Painted concrete masonry units 042000/ 099100</p> <p><u>LOOSE FURNISHINGS:</u></p> <p>Student chairs</p> <p>Wastebasket</p> <p><b>ENVIRONMENTAL CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u></p> <p>34' of plastic laminate counter 062000</p> <p>27' of adjustable shelving 062000</p> <p>Interior window 088000/081113</p> <p><u>Fire Suppression:</u></p> <p>Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p>N/A</p> <p><u>HVAC:</u></p> <p>Supply/return air system Div. 23</p> <p>Independent temperature control 230923</p> <p><u>Electrical:</u></p> <p>Fluorescent lighting 265100</p> <p>Illumination level: See Table 8600-5</p> <p>Single level switching 262726</p> <p>2 duplex receptacles 262726</p> <p>Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u></p> <p>6 data ports 271513</p> <p>Clock 275313</p> <p>Central sound system 275123</p> <p><u>Electronic Safety and Security:</u></p> <p>Life safety devices per code 283111</p> <p><u>Miscellaneous:</u></p> <p>N/A</p>
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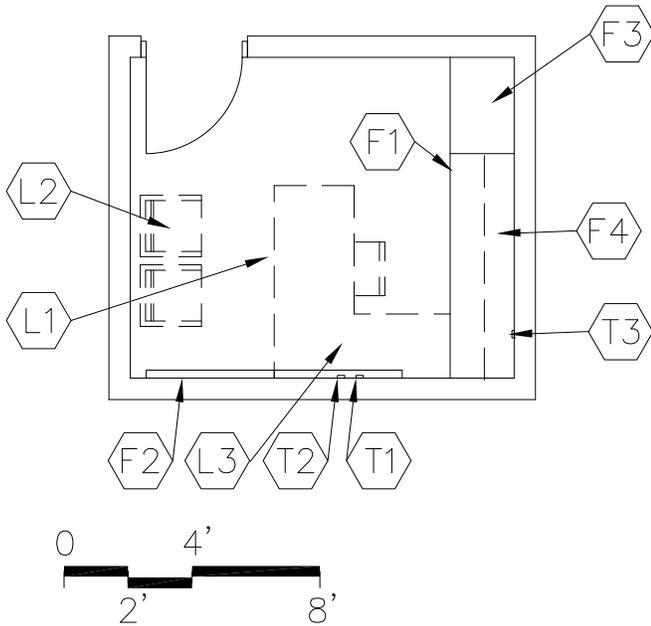
**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

<p><b>PROGRAM DESCRIPTION:</b> Educational programs in lodging prepare learners for careers in the management, marketing and operations of lodging facilities.</p>	<p>Spec. Ref.#</p>
<p><b>Program Type:</b> 3 <b>Size Requirements:</b> 1,500 SF Lab <b>Lab Requirements:</b></p>	<p><b>FEATURES<sup>1</sup>:</b> <b>Fixed Items:</b></p>
<p><b>FINISHES:</b> Flooring: Carpet Optional: ET, sheet vinyl, or linoleum</p>	<p>24' of marker board, tack board, or tackable wall surface 24' of wall cabinets 24' of sink base cabinets w/2 sinks 14' of reception counter Pencil sharpener support (optional) Windows with integral blinds (2) Paper towel dispensers (2) Garbage disposals (2) Dishwashers (2) Ovens (2) Refrigerators (2) Microwave ovens (1) Washer and Dryer Projection screen, 6'x8'</p>
<p>Base: Resilient</p>	<p>101100 123550 123550 123550 062000 085113 102813 113100 113100 113100 113100 113100 113100 115213</p>
<p>Ceiling: Suspended acoustical</p>	<p><b>Fire Suppression:</b> Fire suppression system</p>
<p>Walls: Painted concrete masonry units</p>	<p><b>Plumbing:</b> 1 Utility sink Plumbing connections 221116/221119/224000</p>
<p><b>LOOSE FURNISHINGS:</b> (8) Work stations (24) Student stools/chairs (1) Teacher station &amp; chair Wastebasket</p>	<p><b>HVAC:</b> Supply/return air system Independent temperature control Localized exhaust at laundry/ linen area and oven area</p>
<p><b>Electronic Safety and Security:</b> Life safety devices per code</p>	<p>Div. 23 230923 Div. 23</p>
<p><b>Miscellaneous:</b> Pencil sharpener (optional)</p>	<p><b>Electrical:</b> Fluorescent lighting Illumination level: See Table 8600-5 Multilevel switching 20 duplex receptacles Double duplex receptacle adjacent to each data and video port</p>
<p><b>E1 Duplex receptacle with dedicated circuit for wireless devices</b></p>	<p><b>Communications:</b> 1 <b>projector</b> video port 1 voice port and phone <b>Wireless access point cable above ceiling</b></p>
<p><b>Communications (cont'd):</b> <b>Wireless access point (WAP) as determined by Design – refer to Note 3</b> <b>272133</b> <b>Classroom technology center video port</b> <b>271543, 274116, 274119, 275127</b></p>	<p>265100 262726 262726 262726 271543 271513/273123 271513 275313 275123 275127 274119</p>

- NOTES:**
1. Finishes/Features: Refer to Chapter 9 for specification references.
  2. Based on curriculum needs, a training restroom and laundry room may be included with this program in the allotted square footage for the lab. Space plates for training restroom and laundry room can be found on pages 6314-41 and 6314-42 – Patient Care Technician.
  3. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**





**PROGRAM ACTIVITIES:**

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

**SPATIAL RELATIONSHIPS:**

- Near related lab
- Direct access to school circulation areas

**ENVIRONMENTAL CONSIDERATIONS:**

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P3-2**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271523
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

**PROGRAM ACTIVITIES:**

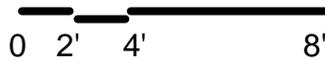
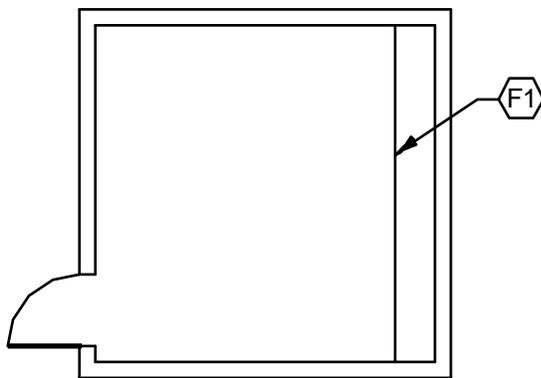
- Space for storage of lab equipment

**SPATIAL RELATIONSHIPS:**

- Near related lab

**ENVIRONMENTAL CONSIDERATIONS:**

N/A



CAPACITY:  
SIZE:

N/A  
200 SF

NOTES:

**STORAGE AREA  
CT-P3-3**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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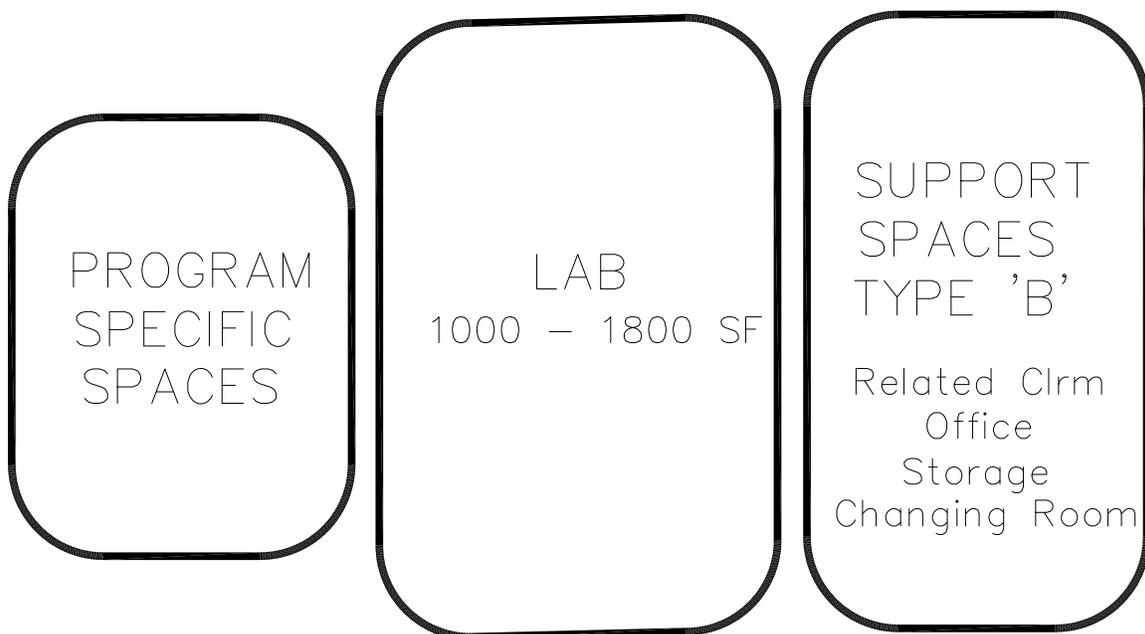
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**Program Type 4**

Description: Small to medium sized lab space with typical support space. Additionally, this program requires specialized auxiliary spaces. This program is to utilize standard construction and be one-story (12' +/-) tall. Lab, support, and specialized space to have finished floor, painted walls, and suspended acoustical ceiling. **Where necessary, include emergency shut-off switch for equipment.**

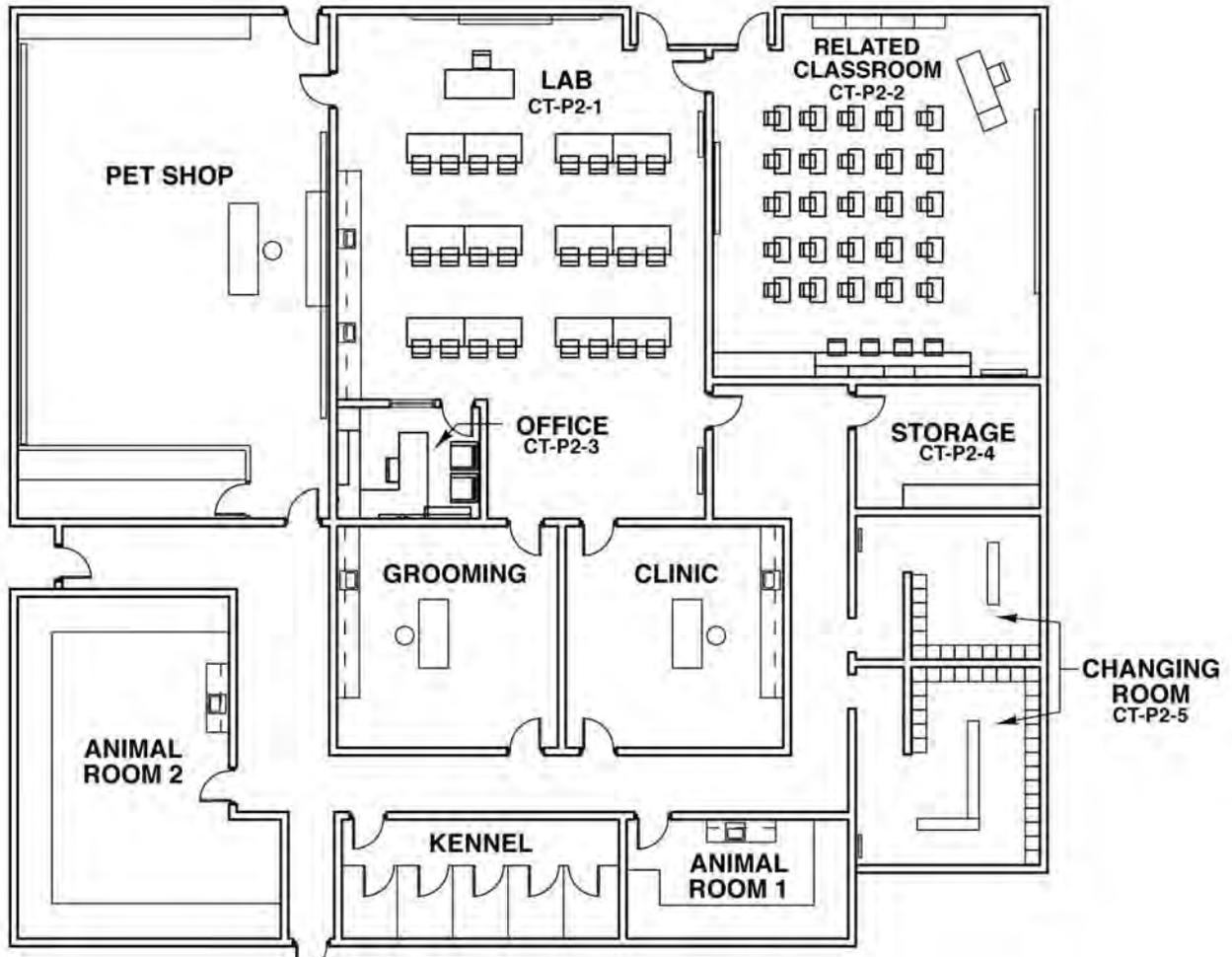


## NOTES:

This is an example of how the Program Type 4 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 4 space plates:

- CT-P4-1 Lab
- CT-P4-2 Related Classroom
- CT-P4-3 Office
- CT-P4-4 Storage
- CT-P4-5 Changing Room

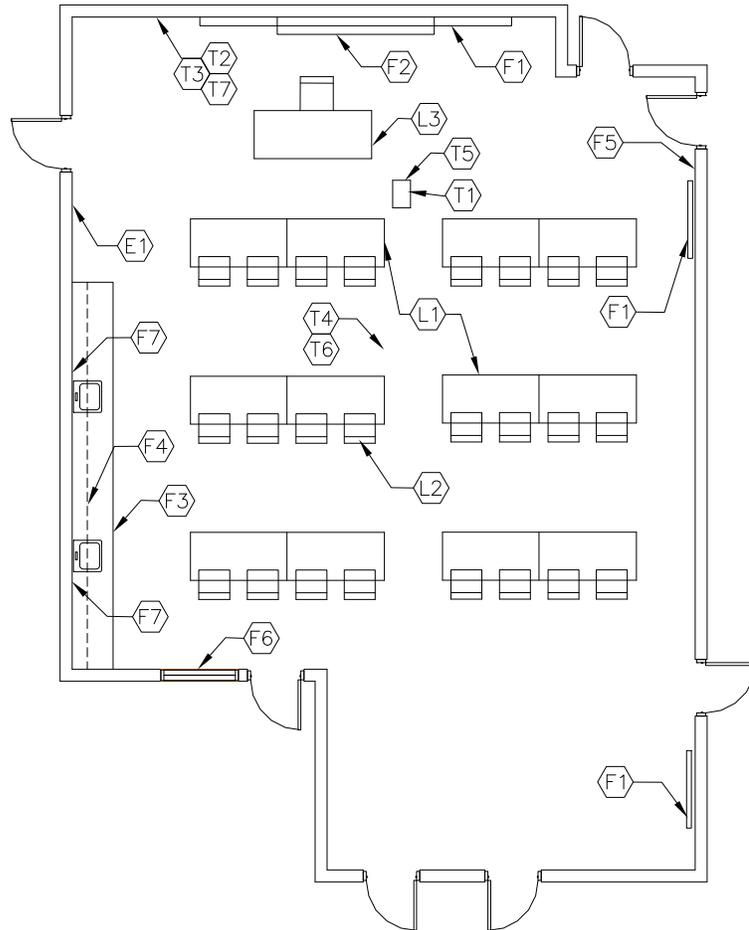


**Program Type 4: Animal Science and Management (small animal)**

This is an example to show the possible relationships of spaces for this program type.

**NOTES:**

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	1,000 – 1,800 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P4-2 thru CT-P4-5

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P4-1**

<p><b><u>PROGRAM DESCRIPTION:</u></b> Applies principles of animal anatomy, physiology, genetics, behavior and nutrition to the research and development, selection and reproduction, health, and management of animals in a domestic and/or natural environment.</p> <p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 1,000 SF Lab</p> <p><b>Lab Requirements:</b></p> <p><b><u>FINISHES:</u></b></p> <p>Flooring: ET, 096500 sheet vinyl, linoleum, 096516 polished concrete finishing, 033510 or colored concrete finishing 033519</p> <p>Base: Resilient 096500</p> <p>Ceiling: Suspended acoustical 095113</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b> L1 (12) Two-person work tables L2 (24) Student chairs/stools L3 (1) Teacher station &amp; chair Wastebasket</p> <p><b><u>Miscellaneous:</u></b> Pencil sharpener (optional)</p> <p><b><u>SITE FEATURE:</u></b> Plan for a dog kennel if required by school curriculum requirements.</p>	<p align="right">Spec. <u>Ref.#</u></p> <p><b><u>FEATURES<sup>1</sup>:</u></b> <b><u>Fixed Items:</u></b></p> <p>F1 24' of marker board, tack board, or tackable wall surface 101100</p> <p>F2 Reserved</p> <p>F3 20' of sink base cabinets w/2 sinks 123550</p> <p>F4 20' of wall cabinets 123550</p> <p>F5 Pencil sharpener support (optional) 062000</p> <p>F6 Windows with integral blinds 085113</p> <p>F7 (2) Paper towel dispenser 102813</p> <p>F8 Projection screen, 6'x8' 115213</p> <p><b><u>Fire Suppression:</u></b> Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b> Plumbing connections 221116/221119/224000 Handwashing lavatory 224000</p> <p><b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><b><u>Electrical:</u></b> Fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 10 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726</p> <p><b><u>Communications:</u></b> T1 1 <b>projector</b> video port 271543 T2 1 voice port and phone 271513/273123 T3 <b>Wireless access point cable above ceiling</b> 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 T4 <b>Ultra-short throw interactive</b> projector 274119 <b>T5 Wireless access point (WAP) as determined by Design – refer to Note 2</b> 272133 <b>T6 Classroom technology center video port</b> 271543, 274116, 274119, 275127</p> <p><b><u>Electronic Safety and Security:</u></b> Life safety devices per code 283111</p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

**Pet Shop**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 1,200 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <table style="width: 100%;"> <tr> <td style="width: 80%;">ET, sheet vinyl, linoleum,</td> <td style="width: 20%;">Spec.</td> </tr> <tr> <td>polished concrete finishing,</td> <td><u>Ref #</u></td> </tr> <tr> <td>or colored concrete finishing</td> <td>096500</td> </tr> <tr> <td></td> <td>096516</td> </tr> <tr> <td></td> <td>033510</td> </tr> <tr> <td></td> <td>033519</td> </tr> </table> <p>Base:</p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Resilient</td> <td style="width: 20%;">096500</td> </tr> </table> <p>Ceiling:</p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Suspended acoustical</td> <td style="width: 20%;">095113</td> </tr> </table> <p>Walls:</p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Painted concrete masonry units</td> <td style="width: 20%;">042000/ 099100</td> </tr> </table> <p><u>LOOSE FURNISHINGS:</u></p> <p>Stool</p> <p>Wastebasket</p> <p><b>ENVIRONMENTAL CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>	ET, sheet vinyl, linoleum,	Spec.	polished concrete finishing,	<u>Ref #</u>	or colored concrete finishing	096500		096516		033510		033519	Resilient	096500	Suspended acoustical	095113	Painted concrete masonry units	042000/ 099100	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">8' of counter</td> <td style="width: 20%;">123550</td> </tr> <tr> <td>30' of base cabinets</td> <td>123550</td> </tr> <tr> <td>60' of adjustable wall display system</td> <td>060565</td> </tr> <tr> <td>Glass enclosed animal display wall</td> <td>084113</td> </tr> </table> <p><u>Fire Suppression:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Fire suppression system</td> <td style="width: 20%;">211000</td> </tr> </table> <p><u>Plumbing:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Plumbing connections</td> <td style="width: 20%;">221116/221119/224000</td> </tr> <tr> <td>Handwashing lavatory</td> <td>224000</td> </tr> </table> <p><u>HVAC:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Supply/return air system</td> <td style="width: 20%;">Div. 23</td> </tr> <tr> <td>Independent temperature control</td> <td>230923</td> </tr> <tr> <td>Independent ventilation</td> <td>Div. 23</td> </tr> </table> <p><u>Electrical:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Fluorescent lighting</td> <td style="width: 20%;">265100</td> </tr> <tr> <td colspan="2">Illumination level: See Table 8600-5</td> </tr> <tr> <td>Multilevel switching</td> <td>262726</td> </tr> <tr> <td>Track lighting</td> <td>265100</td> </tr> <tr> <td>9 duplex receptacles</td> <td>262726</td> </tr> <tr> <td>Double duplex receptacle adjacent to each data port</td> <td>262726</td> </tr> </table> <p><u>Communications:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">1 voice port and phone</td> <td style="width: 20%;">271513/273123</td> </tr> <tr> <td>2 data ports</td> <td>271513</td> </tr> <tr> <td>Clock</td> <td>275313</td> </tr> <tr> <td>Central sound system</td> <td>275123</td> </tr> </table> <p><u>Electronic Safety and Security:</u></p> <table style="width: 100%;"> <tr> <td style="width: 80%;">Life safety devices per code</td> <td style="width: 20%;">283111</td> </tr> </table> <p><u>Miscellaneous:</u></p> <p>N/A</p>	8' of counter	123550	30' of base cabinets	123550	60' of adjustable wall display system	060565	Glass enclosed animal display wall	084113	Fire suppression system	211000	Plumbing connections	221116/221119/224000	Handwashing lavatory	224000	Supply/return air system	Div. 23	Independent temperature control	230923	Independent ventilation	Div. 23	Fluorescent lighting	265100	Illumination level: See Table 8600-5		Multilevel switching	262726	Track lighting	265100	9 duplex receptacles	262726	Double duplex receptacle adjacent to each data port	262726	1 voice port and phone	271513/273123	2 data ports	271513	Clock	275313	Central sound system	275123	Life safety devices per code	283111
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Central sound system	275123																																																												
Life safety devices per code	283111																																																												

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Clinic**

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 350 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  ET, sheet vinyl, linoleum,                  polished concrete finishing,                  or colored concrete finishing</p> <p>Base:                  Resilient</p> <p>Ceiling:                  Suspended acoustical</p> <p>Walls:                  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>                  Stool                  Wastebasket</p> <p>ENVIRONMENTAL CONSIDERATIONS:                  • Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.                  Recommended: Daylighting design with glazing area determined by design solution.                  • Environmental sound control -                  wall only minimum STC 45                  ceiling minimum CAC 35, NRC 0.70</p>	<p align="right">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  15' of base cabinets w/1 sink 123550                  15' of wall cabinets 123550                  6' examination island 123550                  Paper towel dispenser 102813</p> <p><u>Fire Suppression:</u>                  Fire suppression system 211000</p> <p><u>Plumbing:</u>                  Plumbing connections                  221116/221119/224000</p> <p><u>HVAC:</u>                  Supply/return air system Div. 23                  Independent temperature control 230923                  Independent ventilation Div. 23</p> <p><u>Electrical:</u>                  Fluorescent lighting 265100                  Illumination level: See Table 8600-5                  Single level switching 262726                  4 duplex receptacles 262726                  Double duplex receptacle adjacent to                  each data port 262726</p> <p><u>Communications:</u>                  2 data ports 271513                  Clock 275313                  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>                  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>                  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

**Grooming**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 350 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  ET, sheet vinyl, linoleum,                  polished concrete finishing,                  or colored concrete finishing</p> <p>Base:                  Resilient</p> <p>Ceiling:                  Suspended acoustical</p> <p>Walls:                  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>                  Stool                  Wastebasket</p> <p><b>ENVIRONMENTAL CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.                      Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control -                      wall only minimum STC 45                      ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  15' of base cabinets w/1 sink                  15' of wall cabinets                  6' grooming island                  Paper towel dispenser</p> <p><u>Fire Suppression:</u>                  Fire suppression system</p> <p><u>Plumbing:</u>                  Plumbing connections</p> <p><u>HVAC:</u>                  Supply/return air system                  Independent temperature control                  Independent ventilation</p> <p><u>Electrical:</u>                  Fluorescent lighting                  Illumination level: See Table 8600-5                  Single level switching                  4 duplex receptacles                  Double duplex receptacle adjacent to each data port</p> <p><u>Communications:</u>                  2 data ports                  Clock                  Central sound system</p> <p><u>Electronic Safety and Security:</u>                  Life safety devices per code</p> <p><u>Miscellaneous:</u>                  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Animal Room #1**

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 200 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  ET, sheet vinyl, linoleum,                  polished concrete finishing,                  or colored concrete finishing</p> <p>Base:                  Resilient</p> <p>Ceiling:                  Suspended acoustical</p> <p>Walls:                  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>                  Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.                      Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control -                      wall only minimum STC 45                      ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p align="right">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  6' of base cabinets w/1 sink 123550                  6' of wall cabinets 123550                  20' of animal cage shelving 062000                  Paper towel dispenser 102813</p> <p><u>Fire Suppression:</u>                  Fire suppression system 211000</p> <p><u>Plumbing:</u>                  Plumbing connections                  221116/221119/224000                  Handwashing lavatory 224000</p> <p><u>HVAC:</u>                  Supply/return air system Div. 23                  Independent ventilation Div. 23</p> <p><u>Electrical:</u>                  Fluorescent lighting 265100                  Illumination level: See Table 8600-5                  Single level switching 262726                  4 duplex receptacles 262726</p> <p><u>Communications:</u>                  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>                  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>                  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

**Animal Room #2**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 4	Spec.	<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 600 SF	<u>Ref #</u>	<u>Fixed Items:</u>	<u>Ref.#</u>
<b>Requirements:</b>		6' of base cabinets w/1 sink 6' of wall cabinets 50' of animal cage shelving Paper towel dispenser	123550 123550 062000 102813
<u>FINISHES:</u>		<u>Fire Suppression:</u>	
Flooring:		Fire suppression system	211000
ET, sheet vinyl, linoleum, polished concrete finishing, or colored concrete finishing	096500 096516 033510 033519	<u>Plumbing:</u>	
		Plumbing connections	
		221116/221119/224000	
		Handwashing lavatory	224000
Base:		<u>HVAC:</u>	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent ventilation	Div. 23
Suspended acoustical	095113	<u>Electrical:</u>	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/ 099100	Illumination level: See Table 8600-5	
		Single level switching	262726
		4 duplex receptacles	262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>	
Stool		Central sound system	275123
Wastebasket		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Miscellaneous:</u>	
<ul style="list-style-type: none"> <li>Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>		N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (small animal)**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Kennel**

<b>Program Type:</b> 4			<b>FEATURES<sup>1</sup>:</b>		
			<b>Fixed Items:</b>		Spec. Ref.#
<b>Size Requirements:</b> 250 SF			60' of chain link fencing w/5 gates		323113
			(5) exterior animal access doors		323113
<b>Requirements:</b>			<b>Fire Suppression:</b>		
	Spec. Ref #		Fire suppression system		211000
<b>FINISHES:</b>			<b>Plumbing:</b>		
Flooring:			Plumbing connections		
<b>Sealed</b> concrete		033000			221116/221119/224000
Base:			Keyed hose bibb		224000
Resilient		096500	Floor drain		224000
Ceiling:			<b>HVAC:</b>		
Suspended acoustical		095113	Supply/return air system		Div. 23
			Independent ventilation		Div. 23
Walls:			<b>Electrical:</b>		
Painted concrete masonry units		042000/ 099100	Fluorescent lighting		265100
			Illumination level: See Table 8600-5		
			Single level switching		262726
			4 duplex receptacles		262726
<b>LOOSE FURNISHINGS:</b>			<b>Communications:</b>		
Wastebasket			Central sound system		275123
<b>ENVIRONMENTAL CONSIDERATIONS:</b>			<b>Electronic Safety and Security:</b>		
• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.			Life safety devices per code		283111
Recommended: Daylighting design with glazing area determined by design solution.			<b>Miscellaneous:</b>		
• Environmental sound control -			N/A		
wall only minimum STC 45					
ceiling minimum CAC 35, NRC 0.70					

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**P0 /17.2810 CAREER PATHS FOR THE LAW PROFESSION**

**P1 /17.2802 CRIMINAL JUSTICE**

**P5 /17.2808 PRIVATE SECURITY**

**CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>PROGRAM DESCRIPTION:</b>  <u>CPLP:</u> Introduction of career major courses and application of knowledge and skills to prepare students for entry level, technical and professional career options within the law and public administration professions.  <u>CJ:</u> Utilizing business and industry, math, science and technology standards. Introduces concept of training provided by officially designated law enforcement agencies. The program must be certified by the Ohio Peace Officers Training Commission.  <u>PS:</u> A one-year program utilizing business and industry, math, science and technology standards. Introduces concept of physical and personal security, internal loss, and facility access.</p> <p><b>Program Type:</b> 4  <b>Size Requirements:</b> 1,200 SF Lab  Lab Requirements:</p> <p><b>FINISHES:</b></p> <p>Flooring:</p> <p>Carpet 096816  Option: ET, 096500  sheet vinyl, or linoleum 096516</p> <p>Base:</p> <p>Resilient 096500</p> <p>Ceiling:</p> <p>Suspended acoustical 095113</p> <p>Walls:</p> <p>Painted concrete masonry units 042000/ 099100</p> <p><b>LOOSE FURNISHINGS:</b>  (12) Two-person work tables  (24) Student chairs/stools  (1) Teacher station &amp; chair  Wastebasket</p> <p><b>Miscellaneous:</b>  Pencil sharpener (optional)</p>	<p style="text-align: right;">Spec. Ref.#</p> <p><b>FEATURES<sup>1</sup>:</b></p> <p><u>Fixed Items:</u></p> <p>32' of marker board, tack board, or tackable wall surface 101100  30' of sink base cabinets w/1 sink 123550  30' of wall cabinets 123550  Pencil sharpener support (optional) 062000  Windows with integral blinds 085113  Paper towel dispenser 102813  Projection screen, 6'x8' 115213</p> <p><u>Fire Suppression:</u></p> <p>Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p>Plumbing connections 221116/221119/224000</p> <p><u>HVAC:</u></p> <p>Supply/return air system Div. 23  Independent temperature control 230923</p> <p><u>Electrical:</u></p> <p>Fluorescent lighting 265100  Illumination level: See Table 8600-5  Multilevel switching 262726  20 duplex receptacles (minimum) 262726  Double duplex receptacle adjacent to each data and video port 262726</p> <p><u>Communications:</u></p> <p>1 <b>projector</b> video port 271543  1 voice port and phone 271513/273123  <b>Wireless access point cable above ceiling</b> 271513  Clock 275313  Central sound system 275123  Sound reinforcement system 275127  <b>Ultra-short throw interactive projector</b> 274119  <b>Wireless access point (WAP) as determined by Design – refer to Note 2</b> 272133  <b>Classroom technology center video port</b> 271543, 274116, 274119, 275127</p> <p><u>Electronic Safety and Security:</u></p> <p>Life safety devices per code 283111  <b>Duplex receptacle with dedicated circuit for wireless devices</b></p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**



**P0 /17.2810 CAREER PATHS FOR THE LAW PROFESSION**

**P1 /17.2802 CRIMINAL JUSTICE**

**P5 /17.2808 PRIVATE SECURITY**

**Interrogation Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 150 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u>  <b>Flooring:</b>  ET, sheet vinyl, or linoleum</p> <p><b>Base:</b>  Resilient</p> <p><b>Ceiling:</b>  Suspended acoustical</p> <p><b>Walls:</b>  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>  (1) Table  (4) Chairs</p> <p><b>ENVIRONMENTAL CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.  Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control -  wall only minimum STC 45  ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>  N/A</p> <p><u>Fire Suppression:</u>  Fire suppression system 211000</p> <p><u>Plumbing:</u>  N/A</p> <p><u>HVAC:</u>  Supply/return air system Div. 23  Independent temperature control 230923</p> <p><u>Electrical:</u>  Fluorescent lighting 265100  Illumination level: See Table 8600-5  Single level switching 262726  4 duplex receptacles 262726  Double duplex receptacle 262726  adjacent to data port</p> <p><u>Communications:</u>  1 data port 271513  Clock 275313  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>  N/A</p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.



**J1 / 07.1100 CLINICAL HEALTH CARE SERVICES**  
**JD / 07.0303 NURSE ASSISTING**  
**JB / 07.0904 MEDICAL ASSISTANT**  
**Training Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	4	
<b>Size Requirements:</b>	120 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
Flooring:		
Rubber, linoleum, ET, or	096500	
sheet vinyl	096516	
Option: ceramic mosaic tile,	093000	
porcelain tile base, or	096723	
resinous flooring		
Base:		
Resilient	096500	
Option: ceramic mosaic tile base,	093000	
porcelain tile base, or	096723	
resinous flooring		
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
		<u>FEATURES<sup>1</sup>:</u>
		<u>Fixed Items:</u>
		3' vanity with sink
		Paper towel dispenser
		Soap dispenser
		36" and 42" grab bars
		16"x24" mirror
		Toilet paper holder
		Bathtub grab bars
		Bath curtain rod
		<u>Fire Suppression:</u>
		Fire suppression system
		<u>Plumbing:</u>
		Tank-type toilet
		Residential bathtub
		Plumbing connections
		<u>HVAC:</u>
		Exhaust air system
		Supplemental heat as required
		<u>Electrical:</u>
		Fluorescent lighting
		Illumination level: See Table 8600-5
		Single level switching
		2 duplex receptacles
		<u>Communications:</u>
		Central sound system
		<u>Electronic Safety and Security:</u>
		Life safety devices per code
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**J1 / 07.1100 CLINICAL HEALTH CARE SERVICES**  
**JD / 07.0303 NURSE ASSISTING**  
**JB / 07.0904 MEDICAL ASSISTANT**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Laundry Room**

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 120 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u></p> <p>Flooring:              ET, sheet vinyl, or linoleum</p> <p>Base:              Resilient</p> <p>Ceiling:              Suspended acoustical</p> <p>Walls:              Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u></p> <p>    Clothes washer              Electric clothes dryer              Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ Ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u></p> <p>    6' of base cabinets 123550              6' of adjustable shelving 062000</p> <p><u>Fire Suppression:</u></p> <p>    Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p>    Plumbing connections 221116/221119/224000              Washer/dryer connections 224000</p> <p><u>HVAC:</u></p> <p>    Exhaust air system Div. 23              Supplemental heat as required Div. 23              Dryer vent system Div. 23</p> <p><u>Electrical:</u></p> <p>    Fluorescent lighting 265100              Illumination level: See Table 8600-5              Single level switching 262726              4 duplex receptacles 262726</p> <p><u>Communications:</u></p> <p>    Clock 275313              Central sound system 275123</p> <p><u>Electronic Safety and Security:</u></p> <p>    Life safety devices per code 283111</p> <p><u>Miscellaneous:</u></p> <p>    N/A</p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

<b><u>PROGRAM DESCRIPTION:</u></b>	Utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Instruction includes a variety of beauty treatments including care and beautification of the hair, complexion, hands, and feet.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	4	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	1,600 SF Lab	8' of tack board 101100 24' of base and wall cabinets 123550 16' of reception counter 123550 8' of adjustable display shelving 062000 Pencil sharpener support (optional) 062000 Windows with integral blinds 085113 (24) Student hair stations 123550 (base cabinet, countertop, mirror, styling chair)	
<b>Lab Requirements:</b>		<b><u>Fire Suppression:</u></b>	
<b><u>FINISHES:</u></b>	Spec. <b><u>Ref #</u></b>	<b><u>Fire suppression system</u></b>	211000
<b>Flooring:</b>		<b><u>Plumbing:</u></b>	
ET, sheet vinyl, or linoleum 096500 096516		6 Hair washing sinks 224000 Plumbing connections 221116/221119/224000	
<b>Base:</b>		<b><u>HVAC:</u></b>	
Resilient 096500		Supply/return air system Div. 23	
<b>Ceiling:</b>		Independent temperature control 230923	
Suspended acoustical 095113		Specialized ventilation for Div. 23	
<b>Walls:</b>		<b><u>Electrical:</u></b>	
Painted concrete masonry units 042000/ 099100		Fluorescent lighting 265100	
<b><u>LOOSE FURNISHINGS:</u></b>		Illumination level: See Table 8600-5	
Portable demonstration table (8'x8')		Multilevel switching 262726	
Coat rack		40 duplex receptacles (minimum) 262726	
Wastebasket		Double duplex receptacle adjacent to	
<b><u>Electronic Safety and Security:</u></b>		each data and video port 262726	
Life safety devices per code 283111		<b><u>Communications:</u></b>	
<b><u>Miscellaneous:</u></b>		1 <b>projector</b> video port and video display	
Pencil sharpener (optional)		device 271543/274119	
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		1 voice port and phone 271513/273123	
		<b><i>Wireless access point cable above ceiling</i></b>	
		271513	
		Clock 275313	
		Central sound system 275123	
		Sound reinforcement system 275127	
		<b><i>Wireless access point (WAP) as</i></b>	
		<b><i>determined by Design – refer to Note 2</i></b>	
		<b>272133</b>	
		<b><i>Classroom technology center video port</i></b>	
		<b>271543, 274116, 274119, 275127</b>	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

<b>Program Type:</b> 4		<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 175 SF		<b>Fixed Items:</b>	<b>Ref.#</b>
		27' lockable cabinets	123550
<b>Requirements:</b>		<b>Fire Suppression:</b>	
		Fire suppression system	211000
<b>FINISHES:</b>	Spec.	<b>Plumbing:</b>	
<b>Flooring:</b>	<b>Ref #</b>	N/A	
ET, sheet vinyl, or linoleum	096500	<b>HVAC:</b>	
	096516	Supply/return air system	Div. 23
<b>Base:</b>		Independent ventilation	Div. 23
Resilient	096500	<b>Electrical:</b>	
<b>Ceiling:</b>		Fluorescent lighting	265100
Suspended acoustical	095113	Illumination level: See Table 8600-5	
<b>Walls:</b>		Single level switching	262726
Painted concrete masonry units	042000/ 099100	4 duplex receptacles	262726
<b>LOOSE FURNISHINGS:</b>		<b>Communications:</b>	
Wastebasket		Clock	275313
		Central sound system	275123
		<b>Electronic Safety and Security:</b>	
		Life safety devices per code	283111
<b>ENVIRONMENTAL CONSIDERATIONS:</b>		<b>Miscellaneous:</b>	
▪ Wall minimum STC 45		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**M1 / 17.2602 COSMETOLOGY  
Laundry Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 150 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>  <b>Flooring:</b>  ET, sheet vinyl, or linoleum</p> <p><b>Base:</b>  Resilient</p> <p><b>Ceiling:</b>  Suspended acoustical</p> <p><b>Walls:</b>  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>  Clothes washer  Electric clothes dryer  Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ Ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u>  20' of base cabinets w/1 sink 123550  20' of adjustable shelving 062000  Paper towel dispenser 102813</p> <p><u>Fire Suppression:</u>  Fire suppression system 211000</p> <p><u>Plumbing:</u>  Plumbing connections 221116/221119/224000  Washer/dryer connections 224000</p> <p><u>HVAC:</u>  Supply/return air system Div. 23  Independent ventilation Div. 23  Dryer vent system Div. 23</p> <p><u>Electrical:</u>  Fluorescent lighting 265100  Illumination level: See Table 8600-5  Single level switching 262726  4 duplex receptacles 262726</p> <p><u>Communications:</u>  Clock 275313  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<b>Program Type:</b> 4			<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 200 SF			<u>Fixed Items:</u>	<u>Ref.#</u>
			4' of base cabinets w/1 sink	123550
			Paper towel dispenser	102813
<b>Requirements:</b>			<u>Fire Suppression:</u>	
	Spec.		Fire suppression system	211000
<u>FINISHES:</u>	<u>Ref #</u>		<u>Plumbing:</u>	
Flooring:			Plumbing connections	
ET, sheet vinyl, or linoleum	096500		221116/221119/224000	
	096516		<u>HVAC:</u>	
Base:			Supply/return air system	Div. 23
Resilient	096500		Independent ventilation	Div. 23
Ceiling:			Independent temperature control	230923
Suspended acoustical	095113		<u>Electrical:</u>	
Walls:			Fluorescent lighting	265100
Painted concrete masonry units	042000/ 099100		Illumination level: See Table 8600-5	
			Single level switching	262726
			4 duplex receptacles	262726
<u>LOOSE FURNISHINGS:</u>			<u>Communications:</u>	
Wastebasket			Clock	275313
			Central sound system	275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			<u>Electronic Safety and Security:</u>	
▪ Wall minimum STC 40			Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70			<u>Miscellaneous:</u>	
			N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**M1 / 17.2602 COSMETOLOGY  
Manicure Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 200 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: ET, sheet vinyl, or linoleum</p> <p>Base: Resilient</p> <p>Ceiling: Suspended acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ Ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u> 4' of base cabinets w/1 sink Paper towel dispenser</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> Plumbing connections</p> <p><u>HVAC:</u> Supply/return air system Independent ventilation Independent temperature control</p> <p><u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-5 Single level switching 4 duplex receptacles</p> <p><u>Communications:</u> Clock Central sound system</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 60 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  Rubber, linoleum, ET, or sheet vinyl                  Option: ceramic mosaic tile, porcelain tile base, or resinous flooring</p> <p>Base:                  Resilient                  Option: ceramic mosaic tile base, porcelain tile base, or resinous flooring</p> <p>Ceiling:                  Suspended acoustical</p> <p>Walls:                  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>                  Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 48</li> <li>▪ Ceiling minimum CAC 35, NRC 0.40</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  Paper towel dispenser 102813                  Soap dispenser 102813                  36" and 42" grab bars 102813                  24"x60" mirror 102813                  Toilet paper holder 102813</p> <p><u>Fire Suppression:</u>                  Fire suppression system 211000</p> <p><u>Plumbing:</u>                  Wall mounted water closet                  Wall mounted lavatory                  Plumbing connections                  221116/221119/224000</p> <p><u>HVAC:</u>                  Exhaust air system Div. 23                  Supplemental heat as required Div. 23</p> <p><u>Electrical:</u>                  Fluorescent lighting 265100                  Illumination level: See Table 8600-5                  Single level switching 262726                  2 duplex receptacles 262726</p> <p><u>Communications:</u>                  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>                  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>                  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**L0/33.0005 CULINARY AND FOOD SERVICE OPERATIONS**  
**CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b><u>PROGRAM DESCRIPTION:</u></b>		
Educational programs in Culinary and Food Service Operations prepare learners for careers in the art and science of food preparation and presentation.		
<b>Program Type:</b>	4	
<b>Size Requirements:</b>	1,800 SF Lab	
<b>Lab Requirements:</b>		
	Spec. <u>Ref #</u>	
<b><u>FINISHES:</u></b>		
<b>Flooring:</b>		
Quarry tile	093000	
<b>Base:</b>		
Quarry tile base	093000	
<b>Ceiling:</b>		
Cleanable, suspended acoustical	095113	
<b>Walls:</b>		
Epoxy painted concrete masonry units	042000/099100	
Option: ceramic wall tile or latex paint	093000 099100	
<b><u>LOOSE FURNISHINGS:</u></b>		
Wastebasket		
<b><u>Electronic Safety and Security:</u></b>		
Life safety devices per code	283111	
<b><u>Miscellaneous:</u></b>		
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		
<b><u>FEATURES<sup>1</sup>:</u></b>		
<b><u>Fixed Items:</u></b>		
8' of tack board		101100
Food service equipment (for new construction only)		114000
(3) Paper towel dispensers		102813
<b><u>Fire Suppression:</u></b>		
Fire suppression system		211000
<b><u>Plumbing:</u></b>		
Plumbing connections		221116/221119/224000
Connections to food service eqpt		224000
Gas connections		226313
Hand washing lavatory		224000
Quick release gas connections		226313
Master gas shut-off valve		226313
<b><u>HVAC:</u></b>		
Supply/return air system		Div. 23
Independent temperature control		230923
Kitchen canopy exhaust system		Div. 23
<b><u>Electrical:</u></b>		
Fluorescent lighting		265100
illumination level: See Table 8600-6		
Single level switching		262726
10 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
Connections for food service eqpt		262726
Means of egress lighting per code		265100
220V service		262726
<b><u>Communications:</u></b>		
1 <b>projector</b> video port and video display device		271543/274119
1 voice port and phone		271513/273123
<b>Wireless access point cable above ceiling</b>		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>		272133
<b>Classroom technology center video port</b>		271543, 274116, 274119, 275127

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**LO / 33.0005 CULINARY AND FOOD SERVICE OPERATIONS**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Restaurant**

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 1,500 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <p style="padding-left: 20px;">Carpet 096816</p> <p style="padding-left: 20px;">Option: ET, 096500</p> <p style="padding-left: 40px;">sheet vinyl, or linoleum 096516</p> <p>Base:</p> <p style="padding-left: 20px;">Resilient 096500</p> <p>Ceiling:</p> <p style="padding-left: 20px;">Suspended acoustical 095113</p> <p>Walls:</p> <p style="padding-left: 20px;"><b>Paint</b> 099100</p> <p><u>LOOSE FURNISHINGS:</u></p> <p style="padding-left: 20px;">Wastebasket</p> <p style="padding-left: 20px;">Tables and chairs for 24 students</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>• Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design. Recommended: Daylighting design with glazing area determined by design solution.</li> <li>• Environmental sound control - wall only minimum STC 45 ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p align="right">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u></p> <p style="padding-left: 20px;">6' of base cabinets 123550</p> <p style="padding-left: 20px;">6' of cashier's station 123550</p> <p style="padding-left: 20px;">Interior window 088000/081113</p> <p style="padding-left: 20px;">Projection screen, 6'x8' 115213</p> <p><u>Fire Suppression:</u></p> <p style="padding-left: 20px;">Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p style="padding-left: 20px;">N/A</p> <p><u>HVAC:</u></p> <p style="padding-left: 20px;">Supply/return air system Div. 23</p> <p style="padding-left: 20px;">Independent temperature control 230923</p> <p><u>Electrical:</u></p> <p style="padding-left: 20px;">Fluorescent lighting 265100</p> <p style="padding-left: 40px;">Illumination level: See Table 8600-6</p> <p style="padding-left: 20px;">Multilevel switching 262726</p> <p style="padding-left: 20px;"><b>Fluorescent or LED</b> can lighting</p> <p style="padding-left: 40px;">around perimeter of room 265100</p> <p style="padding-left: 20px;">4 duplex receptacles 262726</p> <p style="padding-left: 20px;">Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u></p> <p style="padding-left: 20px;">1 voice port and phone 271513/273123</p> <p style="padding-left: 20px;">2 data ports 271513</p> <p style="padding-left: 20px;">Clock 275313</p> <p style="padding-left: 20px;">Central sound system 275123</p> <p><u>Electronic Safety and Security:</u></p> <p style="padding-left: 20px;">Life safety devices per code 283111</p> <p><u>Miscellaneous:</u></p> <p style="padding-left: 20px;">N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**L0/33.0005 CULINARY AND FOOD SERVICE OPERATIONS**

**Dry Storage**

		Spec. Ref.#
<b>Program Type:</b>	4	
<b>Size Requirements:</b>	150 SF	
<b>Requirements:</b>		
	Spec. Ref #	
<b><u>FINISHES:</u></b>		
<b>Flooring:</b>		
Linoleum, ET, or sheet vinyl	096500	
Option: Quarry tile	093000	
	096516	
<b>Base:</b>		
Resilient base	096500	
Option: Quarry tile	093000	
<b>Ceiling:</b>		
Cleanable, suspended, acoustical	095113	
<b>Walls:</b>		
Epoxy-painted concrete masonry units	042000/099100	
Option: Ceramic wall tile	093000	
or latex paint	099100	
<b><u>LOOSE FURNISHINGS:</u></b>		
20' Commercial grade kitchen shelving		
 <b><u>ENVIRONMENTAL CONSIDERATIONS:</u></b>		
<ul style="list-style-type: none"> <li>• Continuous conditioning of air</li> <li>• Cleanable building surfaces</li> </ul>		
		<b>FEATURES<sup>1</sup>:</b>
		<b><u>Fixed Items:</u></b>
		N/A
		<b><u>Fire Suppression:</u></b>
	Fire suppression system	211000
		<b><u>Plumbing:</u></b>
		N/A
		<b><u>HVAC:</u></b>
	Exhaust air system	Div. 23
	Supply/return air system	Div. 23
		<b><u>Electrical:</u></b>
	Single level switching	262726
	Fluorescent lighting	265100
	Illumination level: See Table 8600-6	
	1 duplex receptacle	262726
		<b><u>Communications:</u></b>
		N/A
		<b><u>Electronic Safety and Security:</u></b>
	Life safety devices per code	283111
		<b><u>Miscellaneous:</u></b>
		N/A

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

<p><b><u>PROGRAM DESCRIPTION:</u></b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Instruction includes concepts, subject matter, and laboratory experience to assist the dentist in the dental operator, clerical functions, and selected dental laboratory work.</p> <p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 1,500 SF Lab</p> <p><b>Lab Requirements:</b></p> <table border="0"> <tr> <td></td> <td style="text-align: right;">Spec.</td> </tr> <tr> <td><b><u>FINISHES:</u></b></td> <td style="text-align: right;"><b><u>Ref #</u></b></td> </tr> <tr> <td>Flooring:</td> <td></td> </tr> <tr> <td>    ET, sheet vinyl, or linoleum</td> <td style="text-align: right;">096500</td> </tr> <tr> <td></td> <td style="text-align: right;">096516</td> </tr> <tr> <td>Base:</td> <td></td> </tr> <tr> <td>    Resilient</td> <td style="text-align: right;">096500</td> </tr> <tr> <td>Ceiling:</td> <td></td> </tr> <tr> <td>    Suspended acoustical</td> <td style="text-align: right;">095113</td> </tr> <tr> <td>Walls:</td> <td></td> </tr> <tr> <td>    Painted concrete masonry units</td> <td 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units	042000/099100	<b><u>LOOSE FURNISHINGS:</u></b>		(6) 4-person epoxy-top student tables w/electric and gas		(24) Student chairs/stools		(1) Teacher station & chair		Wastebasket		<b><u>Electronic Safety and Security:</u></b>		Life safety devices per code	283111	<b><u>Miscellaneous:</u></b>		Pencil sharpener (optional)		<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		<p style="text-align: right;">Spec. <b><u>Ref.#</u></b></p> <p><b><u>FEATURES<sup>1</sup>:</u></b></p> <p><b><u>Fixed Items:</u></b></p> <table border="0"> <tr> <td>24' of marker board, tack board, or tackable wall surface</td> <td style="text-align: right;">101100</td> </tr> <tr> <td>40' of sink base cabinets w/6 sinks and natural gas</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>40' of wall cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>10' of reception counter</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>Pencil sharpener support 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integral blinds	085113	(6) Paper towel dispensers	102813	Projection screen, 6'x8'	115213	Fire suppression system	211000	Plumbing connections	221116/221119/224000	Natural gas connections	226313	Master gas shut-off valve	226313	Safety shower/eye wash	224000	Supply/return air system	Div. 23	Independent temperature control	230923	Localized ventilation for specific lab-produced fumes	Div. 23	Fluorescent lighting	265100	Illumination level: See Table 8600-5		Multilevel switching	262726	30 duplex receptacles (minimum)	262726	Double duplex receptacle adjacent to each data and video port	262726	1 <b>projector</b> video port and video display device	271543/274119	1 voice port and phone	271513/273123	<b><i>Wireless access point cable above ceiling</i></b>	<b>271513</b>	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b>	<b>272133</b>	<b><i>Classroom technology center video 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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

**J3 / 07.0101 DENTAL ASSISTANT  
X-ray Room**

<b>Program Type:</b> 4	Spec. Ref #	<u>FEATURES<sup>1</sup>:</u>	Spec.
<b>Size Requirements:</b> 80 SF		<u>Fixed Items:</u>	Ref.#
<b>Requirements:</b>		N/A	
<u>FINISHES:</u>		<u>Fire Suppression:</u>	
Flooring: ET, sheet vinyl, or linoleum	096500 096516	Fire suppression system	211000
Base: Resilient	096500	<u>Plumbing:</u>	
Ceiling: Suspended acoustical	095113	Plumbing connections	221116/221119/224000
Walls: Painted concrete masonry units	042000/ 099100	<u>HVAC:</u>	
<u>LOOSE FURNISHINGS:</u> (1) Chair		Supply/return air system Independent temperature control	Div. 23 230923
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electrical:</u>	
<ul style="list-style-type: none"> <li>▪ Wall minimum STC 48</li> <li>▪ Ceiling minimum CAC 35, NRC 0.70</li> </ul>		Fluorescent lighting Illumination level: See Table 8600-5 Single level switching 4 duplex receptacles	265100  262726 262726
		<u>Communications:</u>	
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**J3 / 07.0101 DENTAL ASSISTANT  
Darkroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 80 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: ET, sheet vinyl, linoleum, polished concrete finishing, or colored concrete finishing</p> <p>Base: Resilient</p> <p>Ceiling: Suspended acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ Ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p align="right">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u></p> <p><u>Fixed Items:</u> 10' of base cabinets w/1 sink 123550 Paper towel dispenser 102813</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> Plumbing connections 221116/221119/224000</p> <p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-5 Single level switching 262726 4 duplex receptacles 262726 Dark room safelight 265100</p> <p><u>Communications:</u> Central sound system 275123 Clock 275313</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<b><u>PROGRAM DESCRIPTION:</u></b>	A clustered program utilizing business and industry technical standards, math, science, ELA, social studies and technology within a business process framework. Instruction includes concepts, subject matter, and experience in health careers that focus on diagnostic procedures to determine status of body functions/systems, cause and nature of diseases and disorders.	Spec. <u>Ref.#</u>
<b>Program Type:</b>	4	<b><u>FEATURES<sup>1</sup>:</u></b>
<b>Size Requirements:</b>	1,200 SF Lab	<b><u>Fixed Items:</u></b>
Lab Requirements:	Spec.	24' of marker board, tack board, or tackable wall surface 101100 20' of sink base cabinets w/1 sink 123550 20' of wall cabinets 123550 10' of reception counter 123550 Pencil sharpener support (support) 062000 Windows with integral blinds 085113 (1) Paper towel dispenser 102813 Projection screen, 6'x8' 115213
<b><u>FINISHES:</u></b>	<u>Ref #</u>	<b><u>Fire Suppression:</u></b>
Flooring:	096500 096516	Fire suppression system 211000
ET, sheet vinyl, or linoleum		<b><u>Plumbing:</u></b>
Base:	096500	Plumbing connections 221116/221119/224000
Resilient		Safety shower/eyewash 224500
Ceiling:	095113	<b><u>HVAC:</u></b>
Suspended acoustical		Supply/return air system Div. 23 Independent temperature control 230923
Walls:	042000/ 099100	<b><u>Electrical:</u></b>
Painted concrete masonry units		Fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 20 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726
<b><u>LOOSE FURNISHINGS:</u></b>		<b><u>Communications:</u></b>
(12) Two-person work tables		1 <b>projector</b> video port and video display device 271543/274119
(24) Student chairs/stools		1 voice port and phone 271513/273123
(1) Teacher station & chair		1 data port near teacher workstation 271513
Wastebasket		<b>Wireless access point cable above ceiling</b> 271513
<b><u>Electronic Safety and Security:</u></b>	283111	<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b> 272133
Life safety devices per code		Clock 275313
<b><u>Miscellaneous:</u></b>		Central sound system 275123
Pencil sharpener (support)		Sound reinforcement system 275127
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b> 272133
		<b>Classroom technology center video port</b> 271543, 274116, 274119, 275127

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 200 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  ET, sheet vinyl, or linoleum</p> <p>Base:                  Resilient</p> <p>Ceiling:                  Suspended acoustical</p> <p>Walls:                  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>                  (1) stool per room                  (1) wastebasket per room</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.                      Recommended: Daylighting design with glazing area determined by design solution.</li> <li>Environmental sound control -                      wall only minimum STC 45                      ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  4' of base cabinets w/1 sink per room 123550                  Paper towel dispenser 102813</p> <p><u>Fire Suppression:</u>                  Fire suppression system 211000</p> <p><u>Plumbing:</u>                  Plumbing connections                  221116/221119/224000</p> <p><u>HVAC:</u>                  Supply/return air system Div. 23                  Independent temperature control 230923</p> <p><u>Electrical:</u>                  Fluorescent lighting 265100                  Illumination level: See Table 8600-5                  Single level switching 262726                  4 duplex receptacles per room 262726                  Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u>                  1 data port per room 271513                  1 clock per room 275313                  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>                  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>                  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**P6 FIREFIGHTING AND EMERGENCY MEDICAL SERVICES**  
**P4 /17.2801 FIRE FIGHTER TRAINING**  
**CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b><u>PROGRAM DESCRIPTION:</u></b>  Specialized classroom and practical experiences concerned with the preparation of paid, full-time firefighters.</p> <p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 1,500 SF Lab</p> <p><b>Lab Requirements:</b></p> <table border="0"> <tr> <td></td> <td style="text-align: right;">Spec.</td> </tr> <tr> <td><b><u>FINISHES:</u></b></td> <td style="text-align: right;"><b><u>Ref #</u></b></td> </tr> <tr> <td><b>Flooring:</b></td> <td></td> </tr> <tr> <td>    Carpet</td> <td style="text-align: right;">096816</td> </tr> <tr> <td>    Option: ET, sheet vinyl, or linoleum</td> <td style="text-align: right;">096500</td> </tr> <tr> <td></td> <td style="text-align: right;">096516</td> </tr> <tr> <td><b>Base:</b></td> <td></td> </tr> <tr> <td>    Resilient</td> <td style="text-align: right;">096500</td> </tr> <tr> <td><b>Ceiling:</b></td> <td></td> </tr> <tr> <td>    Suspended acoustical</td> <td style="text-align: right;">095113</td> </tr> <tr> <td><b>Walls:</b></td> <td></td> </tr> <tr> <td>    Painted concrete masonry units</td> <td style="text-align: right;">042000/ 099100</td> </tr> <tr> <td><b><u>LOOSE FURNISHINGS:</u></b></td> <td></td> </tr> <tr> <td>    (12) Two-person work tables</td> <td></td> </tr> <tr> <td>    (24) Student chairs/stools</td> <td></td> </tr> <tr> <td>    (1) Teacher station &amp; chair</td> <td></td> </tr> <tr> <td>    Wastebasket</td> <td></td> </tr> <tr> <td><b><u>Electronic Safety and Security:</u></b></td> <td></td> </tr> <tr> <td>    Life safety devices per code</td> <td style="text-align: right;">283111</td> </tr> <tr> <td><b><u>Miscellaneous:</u></b></td> <td></td> </tr> <tr> <td>    Pencil sharpener (optional)</td> <td></td> </tr> <tr> <td>Duplex receptacle with dedicated circuit for wireless devices</td> <td></td> </tr> </table>		Spec.	<b><u>FINISHES:</u></b>	<b><u>Ref #</u></b>	<b>Flooring:</b>		Carpet	096816	Option: ET, sheet vinyl, or linoleum	096500		096516	<b>Base:</b>		Resilient	096500	<b>Ceiling:</b>		Suspended acoustical	095113	<b>Walls:</b>		Painted concrete masonry units	042000/ 099100	<b><u>LOOSE FURNISHINGS:</u></b>		(12) Two-person work tables		(24) Student chairs/stools		(1) Teacher station & chair		Wastebasket		<b><u>Electronic Safety and Security:</u></b>		Life safety devices per code	283111	<b><u>Miscellaneous:</u></b>		Pencil sharpener (optional)		Duplex receptacle with dedicated circuit for wireless devices		<p style="text-align: right;">Spec. <b><u>Ref.#</u></b></p> <p><b><u>FEATURES<sup>1</sup>:</u></b></p> <p><b><u>Fixed Items:</u></b></p> <table border="0"> <tr> <td>    32' of marker board, tack board, or tackable wall surface</td> <td style="text-align: right;">101100</td> </tr> <tr> <td>    30' of sink base cabinets w/1 sink</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>    30' of wall cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>    Pencil sharpener support (optional)</td> <td style="text-align: right;">062000</td> </tr> <tr> <td>    Windows with integral blinds</td> <td style="text-align: right;">085113</td> </tr> <tr> <td>    Paper towel dispenser</td> <td style="text-align: right;">102813</td> </tr> <tr> <td>    Projection screen, 6'x8'</td> <td style="text-align: right;">115213</td> </tr> <tr> <td><b><u>Fire Suppression:</u></b></td> <td></td> </tr> <tr> <td>    Fire suppression system</td> <td style="text-align: right;">211000</td> </tr> <tr> <td><b><u>Plumbing:</u></b></td> <td></td> </tr> <tr> <td>    Plumbing connections</td> <td style="text-align: right;">221116/221119/224000</td> </tr> <tr> <td><b><u>HVAC:</u></b></td> <td></td> </tr> <tr> <td>    Supply/return air system</td> <td style="text-align: right;">Div. 23</td> </tr> <tr> <td>    Independent temperature control</td> <td style="text-align: right;">230923</td> </tr> <tr> <td><b><u>Electrical:</u></b></td> <td></td> </tr> <tr> <td>    Fluorescent lighting</td> <td style="text-align: right;">265100</td> </tr> <tr> <td>    Illumination level: See Table 8600-5</td> <td></td> </tr> <tr> <td>    Multilevel switching</td> <td style="text-align: right;">262726</td> </tr> <tr> <td>    20 duplex receptacles (minimum)</td> <td style="text-align: right;">262726</td> </tr> <tr> <td>    Double duplex receptacle adjacent to each data and video port</td> <td style="text-align: right;">262726</td> </tr> <tr> <td><b><u>Communications:</u></b></td> <td></td> </tr> <tr> <td>    1 projector video port</td> <td style="text-align: right;">271543</td> </tr> <tr> <td>    1 voice port and phone</td> <td style="text-align: right;">271513/273123</td> </tr> <tr> <td>    Wireless access point cable above ceiling</td> <td style="text-align: right;">271513</td> </tr> <tr> <td>    Clock</td> <td style="text-align: right;">275313</td> </tr> <tr> <td>    Central sound system</td> <td style="text-align: right;">275123</td> </tr> <tr> <td>    Sound reinforcement system</td> <td style="text-align: right;">275127</td> </tr> <tr> <td>    Wireless access point (WAP) as determined by Design – refer to Note 2</td> <td style="text-align: right;">272133</td> </tr> <tr> <td>    Classroom technology center video port</td> <td style="text-align: right;">271543, 274116, 274119, 275127</td> </tr> </table>	32' of marker board, tack board, or tackable wall surface	101100	30' of sink base cabinets w/1 sink	123550	30' of wall cabinets	123550	Pencil sharpener support (optional)	062000	Windows with integral blinds	085113	Paper towel dispenser	102813	Projection screen, 6'x8'	115213	<b><u>Fire Suppression:</u></b>		Fire suppression system	211000	<b><u>Plumbing:</u></b>		Plumbing connections	221116/221119/224000	<b><u>HVAC:</u></b>		Supply/return air system	Div. 23	Independent temperature control	230923	<b><u>Electrical:</u></b>		Fluorescent lighting	265100	Illumination level: See Table 8600-5		Multilevel switching	262726	20 duplex receptacles (minimum)	262726	Double duplex receptacle adjacent to each data and video port	262726	<b><u>Communications:</u></b>		1 projector video port	271543	1 voice port and phone	271513/273123	Wireless access point cable above ceiling	271513	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	Wireless access point (WAP) as determined by Design – refer to Note 2	272133	Classroom technology center video port	271543, 274116, 274119, 275127
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**P6 FIREFIGHTING AND EMERGENCY MEDICAL SERVICES  
P4 /17.2801 FIRE FIGHTER TRAINING**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**Weight Room**

<b>Program Type:</b> 4		<b>FEATURES<sup>1</sup>:</b>	Spec. <u>Ref.#</u>
<b>Size Requirements:</b> 800 SF		<b>Fixed Items:</b> N/A	
<b>Requirements:</b>		<b>Fire Suppression:</b> Fire suppression system	211000
<b>FINISHES:</b>	Spec. <u>Ref #</u>	<b>Plumbing:</b> N/A	
Flooring:		<b>HVAC:</b>	
ET, sheet vinyl, or linoleum	096500	Supply/return air system	Div. 23
Option: Sealed concrete	096516 033000	Independent temperature control	230923
Base:		<b>Electrical:</b>	
Resilient	096500	Fluorescent lighting	265100
Ceiling:		Illumination level: See Table 8600-5	
Suspended acoustical	095113	Single level switching	262726
Walls:		4 duplex receptacles	262726
Painted concrete masonry units	042000/ 099100	Double duplex receptacle adjacent to data port	262726
<b>LOOSE FURNISHINGS:</b>		<b>Communications:</b>	
N/A		Clock	275313
		Central sound system	275123
		<b>Electronic Safety and Security:</b>	
		Life safety devices per code	283111
<b>ENVIRONMENTAL CONSIDERATIONS:</b>		<b>Miscellaneous:</b>	
▪ Wall minimum STC 48		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

<p><b><u>PROGRAM DESCRIPTION:</u></b>          Programs that focus on the use of still and motion photography in journalism. Communications, business principles, and leadership skill development related to the industry are essential to the program. Specialization areas include journalism, photography, and digital media.</p> <p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 1,500 SF Lab</p> <p><b>Studio Requirements:</b></p> <p><b><u>FINISHES:</u></b></p> <p>Flooring:          Sheet vinyl or linoleum</p> <p>Base:          Resilient</p> <p>Ceiling:          Pipe grid – 14' to bottom</p> <p>Walls:          Painted concrete masonry units          Acoustical wall treatment</p> <p><b><u>Electronic Safety and Security:</u></b>          Life safety devices per code</p> <p><b><u>Miscellaneous:</u></b>  <b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b></p>	<p style="text-align: right;">Spec. Ref.#</p> <p><b><u>FEATURES<sup>1</sup>:</u></b></p> <p><b><u>Fixed Items:</u></b>          Overhead metal pipe grid (48" o.c., both ways) to support studio lights &amp; accessories 055000          Cyclorama curtain &amp; track, min. of 2 walls 116143</p> <p><b><u>Fire Suppression:</u></b>          Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b>          N/A</p> <p><b><u>HVAC:</u></b>          Supply/return air system Div. 23          Independent temperature control 230923</p> <p><b><u>Electrical:</u></b>          Fluorescent lighting 265100          Illumination level: See Table 8600-5          Track lighting 265100          Multilevel switching 262726          20 duplex receptacles 262726          Double duplex receptacle adjacent to each data and video port 262726          Emergency lighting 265100</p> <p><b><u>Communications:</u></b>          1 <b>projector</b> video port 271543          1 voice port and phone 271513/273123  <b><i>Wireless access point cable above ceiling</i></b>          271513          Clock 275313          Cable management system          Special A/V Cabling Conveyance          Special A/V Cabling  <b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b>  <b>272133</b>  <b><i>Classroom technology center video port</i></b>  <b>271543, 274116, 274119, 275127</b></p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

**B0 / 34.0015 MEDIA ARTS  
CONTROL ROOM / EDIT**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 4</p> <p>Size Requirements: 450 SF</p> <p><u>FINISHES<sup>1</sup>:</u></p> <p><u>Flooring:</u> Linoleum, ET, or sheet vinyl</p> <p><u>Base:</u> Resilient base</p> <p><u>Ceiling:</u> Suspended, acoustical (9'-0" high)</p> <p><u>Walls:</u> Painted gypsum wallboard Acoustical wall treatment</p> <p><u>LOOSE FURNISHINGS:</u> (6) Chairs Wastebasket</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> Duplex receptacle with dedicated circuit for wireless devices</p>	<p align="right">Spec. Ref.#</p> <p><u>FEATURES:</u></p> <p><u>Fixed Items:</u> 10'-20' of equipment/work surface 6'-8' of tack board or marker board Window 8' of base cabinet</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supply/return air system Independent temperature control</p> <p><u>Electrical:</u> Fluorescent lighting: overhead Illumination level: See Table 8600-5 Dimmable task lighting on work surface Single level switching 8 duplex receptacles Provisions for hard-wired equipment Studio dimming system control panel Telecommunications Grounding</p> <p><u>Communications:</u> 1 voice port and phone 2 projector video ports Wireless access point cable above ceiling Clock Central sound system Specialized A/V equipment Wireless access point (WAP) as determined by Design – refer to Note 2 Classroom technology center video port</p>
	<p>123550</p> <p>101100</p> <p>085113</p> <p>123550</p> <p>211000</p> <p>265100</p> <p>262726</p> <p>262726</p> <p>260519/260533</p> <p>265561</p> <p>270526/260526</p> <p>271513/273123</p> <p>271543</p> <p>271513</p> <p>275313</p> <p>275123</p> <p>272133</p> <p>271543, 274116, 274119, 275127</p> <p>Div. 23 230923</p>

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements

		Spec. Ref.#
<b>Program Type:</b>	4	
<b>Size Requirements:</b>	84 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical (9'-0" high)	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
Acoustical wall treatment	098000	
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall only minimum STC 45		
▪ Ceiling minimum CAC 35, NRC 0.70		
		<u>FEATURES<sup>1</sup>:</u>
		<u>Fixed Items:</u>
		Doors to receive light-tight perimeter seal
		4' of tack board 101100
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		1 duplex receptacle 262726
		Warning light to control room 265100
		<u>Communications:</u>
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<b><u>PROGRAM DESCRIPTION:</u></b>		<b>FEATURES<sup>1</sup>:</b>	Spec.
A combination of subject matter and experiences designed to train a person to prepare, assemble, and/or fit corrective lenses prescribed by a physician or optometrist. These occupations may include optical surfacing, optical finishing, optical stylist, and/or optical dispensing.		<b>Fixed Items:</b>	<b>Ref.#</b>
<b>Program Type:</b>	4	24' of marker board, tack board, or tackable wall surface	101100
<b>Size Requirements:</b>	1,200 SF Lab	30' of sink base cabinets w/2 sinks	123550
<b>Lab Requirements:</b>		30' of wall cabinets	123550
<b>FINISHES:</b>		Pencil sharpener support (optional)	062000
<b>Flooring:</b>		Windows with integral blinds	085113
ET, sheet vinyl, or linoleum	Spec. Ref #	(2) Paper towel dispensers	102813
	096500	Projection screen, 6'x8'	115213
	096516	Fume hood	115313
<b>Base:</b>		<b>Fire Suppression:</b>	
Resilient	096500	Fire suppression system	211000
<b>Ceiling:</b>		<b>Plumbing:</b>	
Suspended acoustical	095113	Plumbing connections	221116/221119/224000
<b>Walls:</b>		12 Compressed air connections	221500
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash	224000
		Master gas shut-off valve	226313
<b>LOOSE FURNISHINGS:</b>		<b>HVAC:</b>	
(6) 4-person epoxy-top student tables with electric & natural gas		Supply/return air system	Div. 23
(24) Student chairs/stools		Independent temperature control	230923
(1) Teacher station & chair		Fume hood exhaust	Div. 23
Wastebasket		<b>Electrical:</b>	
<b>Electronic Safety and Security:</b>		Fluorescent lighting	265100
Life safety devices per code	283111	Illumination level: See Table 8600-5	
<b>Miscellaneous:</b>		Multilevel switching	262726
Pencil sharpener (optional)		30 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		220V service	262726
		<b>Communications:</b>	
		1 <b>projector</b> video port and video display device	271543/274119
		1 voice port and phone	271513/273123
		1 data port near teacher workstation	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		<b>Ultra-short throw interactive projector</b>	274119
		<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>	<b>272133</b>
		<b>Classroom technology center video port</b>	<b>271543, 274116, 274119, 275127</b>

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**JE / 07.0603 OPTOMETRIC OCCUPATIONS**  
**Exam Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	4	
<b>Size Requirements:</b>	100 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
2 stools		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
		<b>FEATURES<sup>1</sup>:</b>
		<u>Fixed Items:</u>
		4' of base cabinets 123550
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-5
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to data port 262726
		<u>Communications:</u>
		1 data port 271513
		1 voice port and phone 271513/273123
		1 clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**JF / 07.0994 PATIENT CARE TECHNICIAN  
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Subject matter and laboratory experiences to provide students with the knowledge and skills in the care of patients of all ages under the direction and supervision of a registered nurse or licensed practical nurse and for advance nursing skills.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	4	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	1,500 SF Lab	16' of marker board, tack board, or	101100
<b>Lab Requirements:</b>		tackable wall surface	123550
<b><u>FINISHES:</u></b>		30' of sink base cabinets w/2 sinks	123550
<b><u>Flooring:</u></b>		30' of wall cabinets	123550
ET, sheet vinyl, or linoleum	096500	10' of reception counter	062000
	096516	Pencil sharpener support (optional)	085113
<b>Base:</b>		Windows with integral blinds	102813
Resilient	096500	(2) Paper towel dispensers	115213
<b>Ceiling:</b>		Projection screen, 6'x8'	102123
Suspended acoustical	095113	100' of cubicle track and curtains	
<b>Walls:</b>		<b><u>Fire Suppression:</u></b>	
Painted concrete masonry units	042000/ 099100	Fire suppression system	211000
<b><u>LOOSE FURNISHINGS:</u></b>		<b><u>Plumbing:</u></b>	
(12) Two-person work tables		Plumbing connections	221116/221119/224000
(24) Student chairs/stools		<b><u>HVAC:</u></b>	
(1) Teacher station & chair		Supply/return air system	Div. 23
Wastebasket		Independent temperature control	230923
<b><u>Electronic Safety and Security:</u></b>		<b><u>Electrical:</u></b>	
Life safety devices per code	283111	Fluorescent lighting	265100
<b><u>Miscellaneous:</u></b>		Illumination level: See Table 8600-5	
Pencil sharpener (optional)		Multilevel switching	262726
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		20 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to	
		each data and video port	262726
		<b><u>Communications:</u></b>	
		1 <b>projector</b> video port, monitor, and brackets	271543/274119
		1 voice port and phone	271513/273123
		1 data port near teacher workstation	271513
		<b><i>Wireless access point cable above ceiling</i></b>	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		<b><i>Ultra-short throw interactive projector</i></b>	274119
		<b><i>Wireless access point (WAP) as</i></b>	
		<b><i>determined by Design – refer to Note 2</i></b>	272133
		<b><i>Classroom technology center video port</i></b>	271543, 274116, 274119, 275127

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

**JF / 07.0994 PATIENT CARE TECHNICIAN  
Training Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	4	
<b>Size Requirements:</b>	120 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Rubber, linoleum, ET, or	096500	
sheet vinyl	096515	
Option: ceramic mosaic tile,	093000	
porcelain tile base, or	096723	
resinous flooring		
Base:		
Resilient	096500	
Option: ceramic mosaic tile base,	093000	
porcelain tile base, or	096723	
resinous flooring		
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
		<b>FEATURES<sup>1</sup>:</b>
		<u>Fixed Items:</u>
		3' vanity with sink
		Paper towel dispenser
		Soap dispenser
		36" and 42" grab bars
		16"x24" mirror
		Toilet paper holder
		Bathtub grab bars
		Bath curtain rod
		<u>Fire Suppression:</u>
		Fire suppression system
		<u>Plumbing:</u>
		Tank-type toilet
		Residential bathtub
		Plumbing connections
		<u>HVAC:</u>
		Exhaust air system
		Supplemental heat as required
		<u>Electrical:</u>
		Fluorescent lighting
		Illumination level: See Table 8600-5
		Single level switching
		2 duplex receptacles
		<u>Communications:</u>
		Central sound system
		<u>Electronic Safety and Security:</u>
		Life safety devices per code
		<u>Miscellaneous:</u>
		N/A

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**JF / 07.0994 PATIENT CARE TECHNICIAN  
Laundry Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 4			<b>FEATURES<sup>1</sup>:</b>	Spec. Ref.#
<b>Size Requirements:</b> 120 SF			<b>Fixed Items:</b>	
			6' of base cabinets	123550
			6' of adjustable shelving	062000
<b>Requirements:</b>			<b>Fire Suppression:</b>	
	Spec. Ref #		Fire suppression system	211000
<b>FINISHES:</b>			<b>Plumbing:</b>	
Flooring:			Plumbing connections	
ET, sheet vinyl, or linoleum	096500 096516		221116/221119/224000	
Base:			Washer/dryer connections	224000
Resilient	096500		<b>HVAC:</b>	
Ceiling:			Exhaust air system	Div. 23
Suspended acoustical	095113		Supplemental heat as required	Div. 23
Walls:			Dryer vent system	Div. 23
Painted concrete masonry units	042000/ 099100		<b>Electrical:</b>	
			Fluorescent lighting	265100
			Illumination level: See Table 8600-5	
			Single level switching	262726
			4 duplex receptacles	262726
<b>LOOSE FURNISHINGS:</b>			<b>Communications:</b>	
Clothes washer			Clock	275313
Electric clothes dryer			Central sound system	275123
Wastebasket			<b>Electronic Safety and Security:</b>	
			Life safety devices per code	283111
<b>ENVIRONMENTAL CONSIDERATIONS:</b>			<b>Miscellaneous:</b>	
▪ Wall minimum STC 45			N/A	
▪ Ceiling minimum CAC 35, NRC 0.70				

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**B1 / 34.0020 PERFORMING ARTS**  
**CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
Programs that focus on the creation, interpretation, and performance of works that use auditory, kinesthetic, and visual phenomena to express ideas and emotions in various forms. Communications, business principles, and leadership skill development related to the industry are essential to the program. Specialization areas includes music, dance, and theater.	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
	8' of tack board 16' length of 60" high mirrors 16' of ballet bars	101100 088300 116615
	<b><u>Fire Suppression:</u></b>	
	Fire suppression system	211000
	<b><u>Plumbing:</u></b>	
	Drinking water cooler	224000
	<b><u>HVAC:</u></b>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	<b><u>Electrical:</u></b>	
	Fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Track lighting	265100
	Multilevel switching	262726
	10 duplex receptacles	262726
	Double duplex receptacle adjacent to each data and video port	262726
	<b><u>Communications:</u></b>	
	1 <b>projector</b> video port	271543
	1 voice port and phone	271513/273123
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275125
	<b><u>Electronic Safety and Security:</u></b>	
	Life safety devices per code	283111
	<b><u>Miscellaneous:</u></b>	
	N/A	
<b>Program Type: 4</b>		
<b>Size Requirements:</b>		
1,500 SF Dance/Music Room		
	Spec.	
	<b><u>Ref #</u></b>	
<b><u>FINISHES:</u></b>		
Flooring:		
Hardwood	096000	
Base:		
Resilient	096500	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
Acoustical wall treatment	098000	
<b><u>LOOSE FURNISHINGS:</u></b>		
(25) Student stools/chairs		

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**B1 / 34.0020 PERFORMING ARTS  
Practice Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 4			<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 150 SF			<b>Fixed Items:</b>	<u>Ref.#</u>
			N/A	
<b>Requirements:</b>			<b>Fire Suppression:</b>	
			Fire suppression system	211000
	Spec.			
	<u>Ref #</u>		<b>Plumbing:</b>	
<b>FINISHES:</b>			Plumbing connections	
<b>Flooring:</b>				221116/221119/224000
ET, sheet vinyl, or linoleum		096500		
		096516		
Optional: carpet		096816	<b>HVAC:</b>	
			Supply/return air system	Div. 23
<b>Base:</b>			Independent temperature control	230923
Resilient		096500		
<b>Ceiling:</b>			<b>Electrical:</b>	
Suspended acoustical		095113	Fluorescent lighting	265100
Absorptive 25%, reflective 25%, diffusive 50%			Illumination level: See Table 8600-5	
			Single level switching	262726
			4 duplex receptacles	262726
<b>Walls:</b>			<b>Communications:</b>	
Painted concrete masonry units		042000/ 099100	1 voice port and phone	271513/273123
			Central sound system	275123
Acoustical wall treatment (varies with geometry of room)		098000	Clock	275313
			<b>Electronic Safety and Security:</b>	
<b>LOOSE FURNISHINGS:</b>			Life safety devices per code	283111
L1 Music Stands				
L2 Music chairs			<b>Miscellaneous:</b>	
			Interior window	081113/088000

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

<b><u>PROGRAM DESCRIPTION:</u></b>	A combination of subject matter and experiences designed to prepare a person to serve as a general assistant on the surgical team in the operating unit.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	4	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	1,000 SF Lab	24' marker board, tack board, or tackable wall surface 101100 20' of sink base cabinets w/1 sink 123550 20' of wall cabinets 123550 Pencil sharpener support (optional) 062000 Windows with integral blinds 085113 Paper towel dispenser 102813 Projection screen, 6'x8' 115213	
<b>Lab Requirements:</b>		<b><u>Fire Suppression:</u></b>	
<b><u>FINISHES:</u></b>		Fire suppression system 211000	
<b>Flooring:</b>		<b><u>Plumbing:</u></b>	
ET, sheet vinyl, or linoleum	Spec. <b><u>Ref #</u></b>	Plumbing connections 221116/221119/224000	
<b>Base:</b>		<b><u>HVAC:</u></b>	
Resilient	096500	Supply/return air system Div. 23 Independent temperature control 230923	
<b>Ceiling:</b>		<b><u>Electrical:</u></b>	
Suspended acoustical	095113	Fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 10 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726	
<b>Walls:</b>		<b><u>Communications:</u></b>	
Painted concrete masonry units	042000/ 099100	1 <b>projector</b> video port and video display device 271543/274119 1 voice port and phone 271513/273123 1 data port near teacher workstation 271513	
<b><u>LOOSE FURNISHINGS:</u></b>		<b><i>Wireless access point cable above ceiling</i></b> 271513	
(12) Two-person work tables (24) Student chairs/stools (1) Teacher station & chair Wastebasket		Clock 275313 Central sound system 275123 Sound reinforcement system 275127	
<b><u>Electronic Safety and Security:</u></b>		<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b> 272133	
Life safety devices per code	283111	<b><i>Classroom technology center video port</i></b> 271543, 274116, 274119, 275127	
<b><u>Miscellaneous:</u></b>			
Pencil sharpener (optional)			
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>			

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

<b>Program Type:</b> 4	Spec. Ref #	<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 800 SF		<u>Fixed Items:</u>	Ref.#
<b>Requirements:</b>		4' of base cabinets w/1 sink	123550
<u>FINISHES:</u>		Paper towel dispenser	102813
Flooring:		<u>Fire Suppression:</u>	
ET, sheet vinyl, or linoleum	096500	Fire suppression system	211000
	096516	<u>Plumbing:</u>	
Base:		Plumbing connections	221116/221119/224000
Resilient	096500	<u>HVAC:</u>	
Ceiling:		Supply/return air system	Div. 23
Suspended acoustical	095113	Independent temperature control	230923
Walls:		<u>Electrical:</u>	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
<u>LOOSE FURNISHINGS:</u>		Single level switching	262726
Wastebasket		6 duplex receptacles	262726
		Double duplex receptacle adjacent to	
		data port	262726
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Communications:</u>	
▪ Wall minimum STC 48		1 data port per room	271513
▪ Ceiling minimum CAC 35, NRC 0.70		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**JK / 07.0305 SURGICAL TECHNOLOGY  
Instrument Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 4</p> <p><b>Size Requirements:</b> 700 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: ET, sheet vinyl, or linoleum</p> <p>Base: Resilient</p> <p>Ceiling: Suspended acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ Ceiling minimum CAC 35, NRC 0.70</li> </ul>	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES<sup>1</sup>:</u> <u>Fixed Items:</u> 20' of base cabinets w/1 sink 10' of wall cabinets Paper towel dispenser</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> Plumbing connections 221116/221119/224000</p> <p><u>HVAC:</u> Supply/return air system Independent temperature control</p> <p><u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-5 Single level switching 6 duplex receptacles Double duplex receptacle adjacent to data port</p> <p><u>Communications:</u> 1 data port per room Clock Central sound system</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**JK / 07.0305 SURGICAL TECHNOLOGY  
Scrub Room**

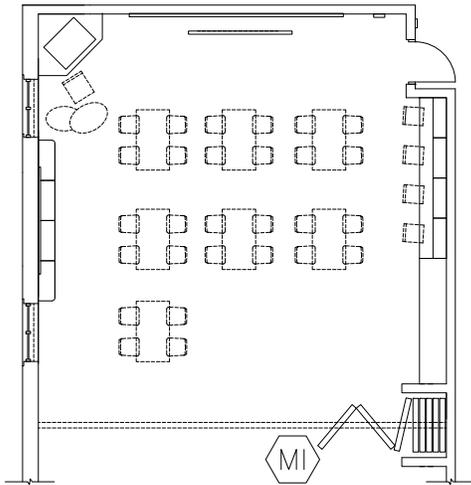
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 4	Spec. Ref #	<b>FEATURES<sup>1</sup>:</b>	Spec. Ref.#
<b>Size Requirements:</b> 500 SF		<u>Fixed Items:</u>	
		12' of base and wall cabinets	123550
		Paper towel dispenser	102813
<b>Requirements:</b>		<u>Fire Suppression:</u>	
		Fire suppression system	211000
<u>FINISHES:</u>		<u>Plumbing:</u>	
Flooring:		2 scrub sinks	224000
Sheet vinyl or linoleum	096500	Plumbing connections	
	096516		
Base:			
Resilient	096500		
Ceiling:		<u>HVAC:</u>	
Suspended acoustical	095113	Supply/return air system	Div. 23
		Independent temperature control	230923
Walls:		<u>Electrical:</u>	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Single level switching	262726
		6 duplex receptacles	262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>	
Wastebasket		Clock	275313
		Central sound system	275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70		<u>Miscellaneous:</u>	
		N/A	

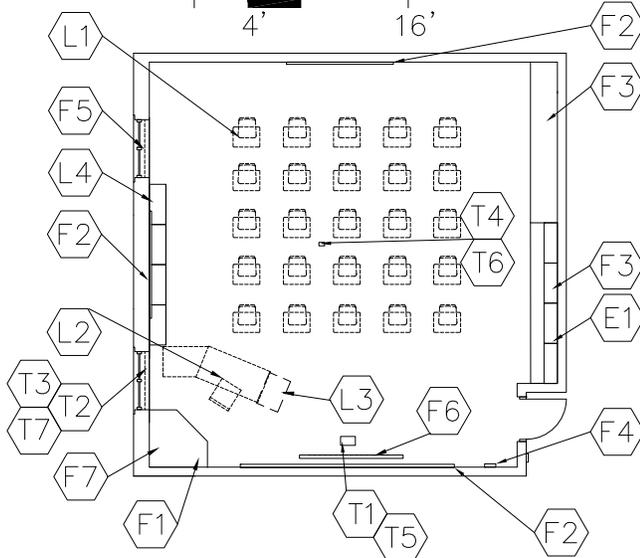
**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

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CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

**CAPACITY:** 25 students  
**SIZE:** 900 SF

**PROGRAM ACTIVITIES:**

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

**SPATIAL RELATIONSHIPS:**

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.  
Recommended: Daylighting design with glazing area determined by design solution.
- Environmental sound control -  
wall only minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

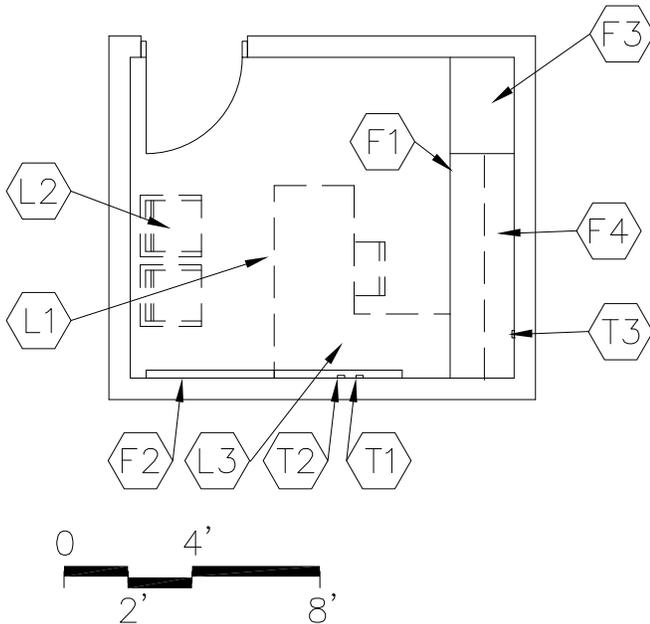
**RELATED CLASSROOM  
CT-P4-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	<b>F1</b> Tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500 096813	<b>F2</b> 20'-32' combination marker board, tack board and tackable wall surface	101100
<u>Base:</u>		<b>F3</b> 18'-24' combination base and wall cabinets	123550
Resilient base	096500	<b>F4</b> Pencil sharpener support (optional)	062000
<u>Ceiling:</u>		<b>F5</b> Windows with integral blinds	085113
Suspended, acoustical	095113	<b>F6</b> Projection screen (optional)	115213
<u>Walls:</u>		<b>F7</b> Technology support casework	123550
Painted concrete masonry units	042000/099100	<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Student desks and chairs		Supply/return air system	Div. 23
L2 Teacher desk or workstation/computer support and chair		Independent temperature control	230923
L3 File cabinet		<u>Electrical:</u>	
L4 9' of low bookcases (fixed or mobile) Wastebasket		Fluorescent lighting:	265100
		illumination level: See Table 8600-5	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 <b>projector</b> video port	271543
		T2 1 voice port and phone	271513/273123
		T3 1 data port near teacher workstation	271513
		T4 <b>Wireless access point cable above ceiling</b>	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
<u>Miscellaneous:</u>		T5 <b>Ultra-short throw interactive</b> projector	274119
Pencil sharpener ( <b>optional</b> )		T6 <b>Wireless access point (WAP) as determined by Design – refer to Note 4</b>	272133
M1 Operable partitions between classrooms are optional	02226	T7 <b>Classroom technology center video port</b>	271543, 274116, 274119, 275127
<b>E1 Duplex receptacle with dedicated circuit for wireless devices</b>		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.
4. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**



**PROGRAM ACTIVITIES:**

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

**SPATIAL RELATIONSHIPS:**

- Near related lab
- Direct access to school circulation areas

**ENVIRONMENTAL CONSIDERATIONS:**

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P4-3**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271513
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

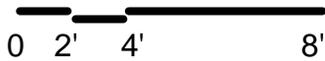
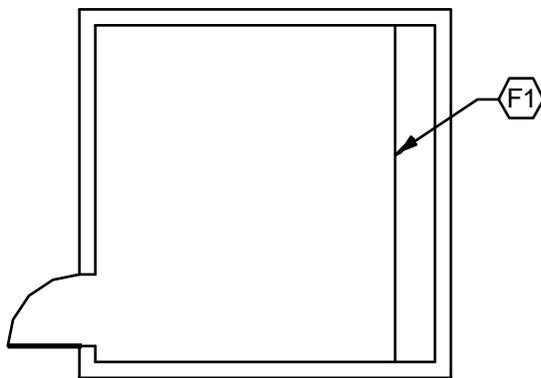
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:  
SIZE:

N/A  
200 SF

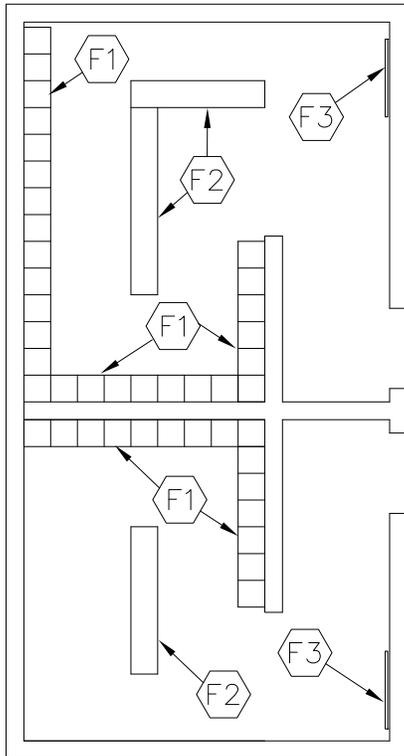
NOTES:

**STORAGE AREA  
CT-P4-4**

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



50 total lockers

**PROGRAM ACTIVITIES:**

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
Wall minimum STC 40  
Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
450 SF

**NOTES:**

1. Large and small changing areas are interchangeable for either males or females. Determination based on male/female ratio within each program.

**CHANGING ROOM  
CT-P4-5**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items<sup>1</sup>:</u>	
Polished concrete finishing, or colored concrete finishing	033510 033519	F1 Student lockers	105113
Optional: linoleum or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical with high impact hold down clips	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Supply/Return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-6	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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**Program Type 5**

Description: Medium to large sized lab space with enhanced support space.

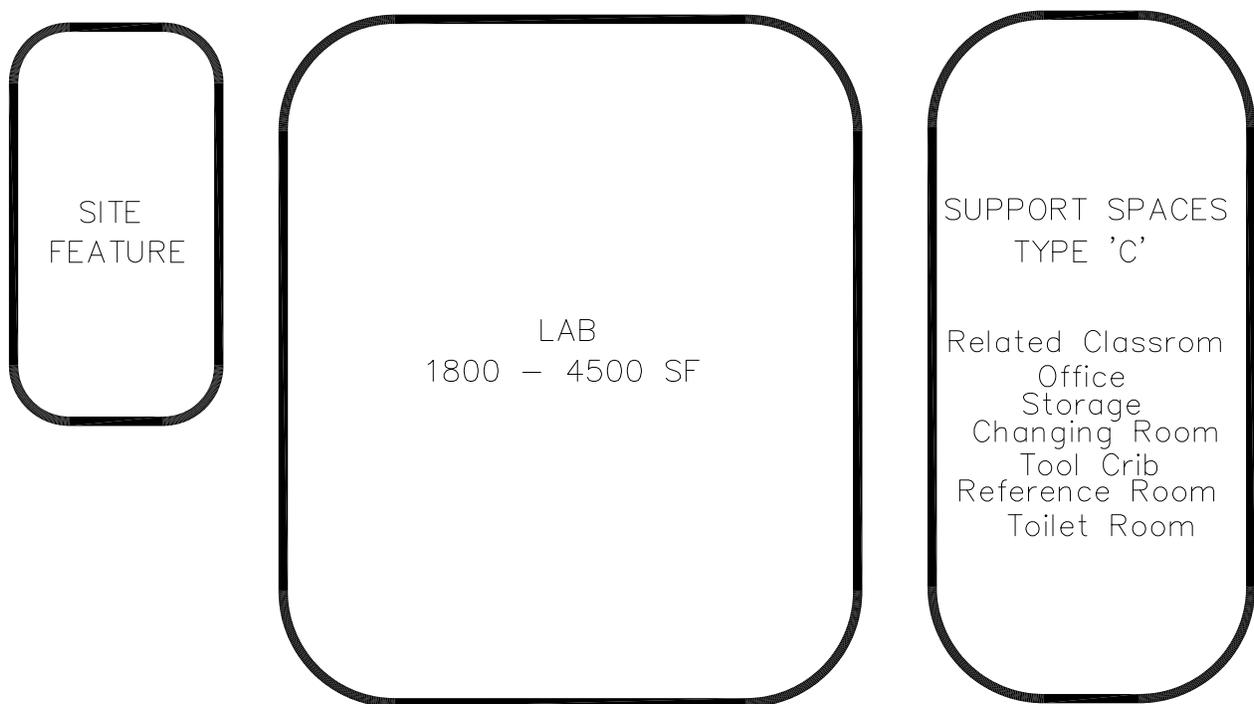
Lab space to be "high-bay" (18' min. clearance) with exposed building structure.

Lab to utilize standard construction with the following exception – lab floor slab to be 8" thick.

Support space to be finished with sealed concrete or vinyl composition tile, paint, and suspended acoustical ceiling. Lab may have possible site feature.

Related classroom office, changing room, reference room, and toilet room may be air-conditioned. The high bay labs have no air conditioning unless noted otherwise.

**Where necessary, include emergency shut-off switch for equipment.**

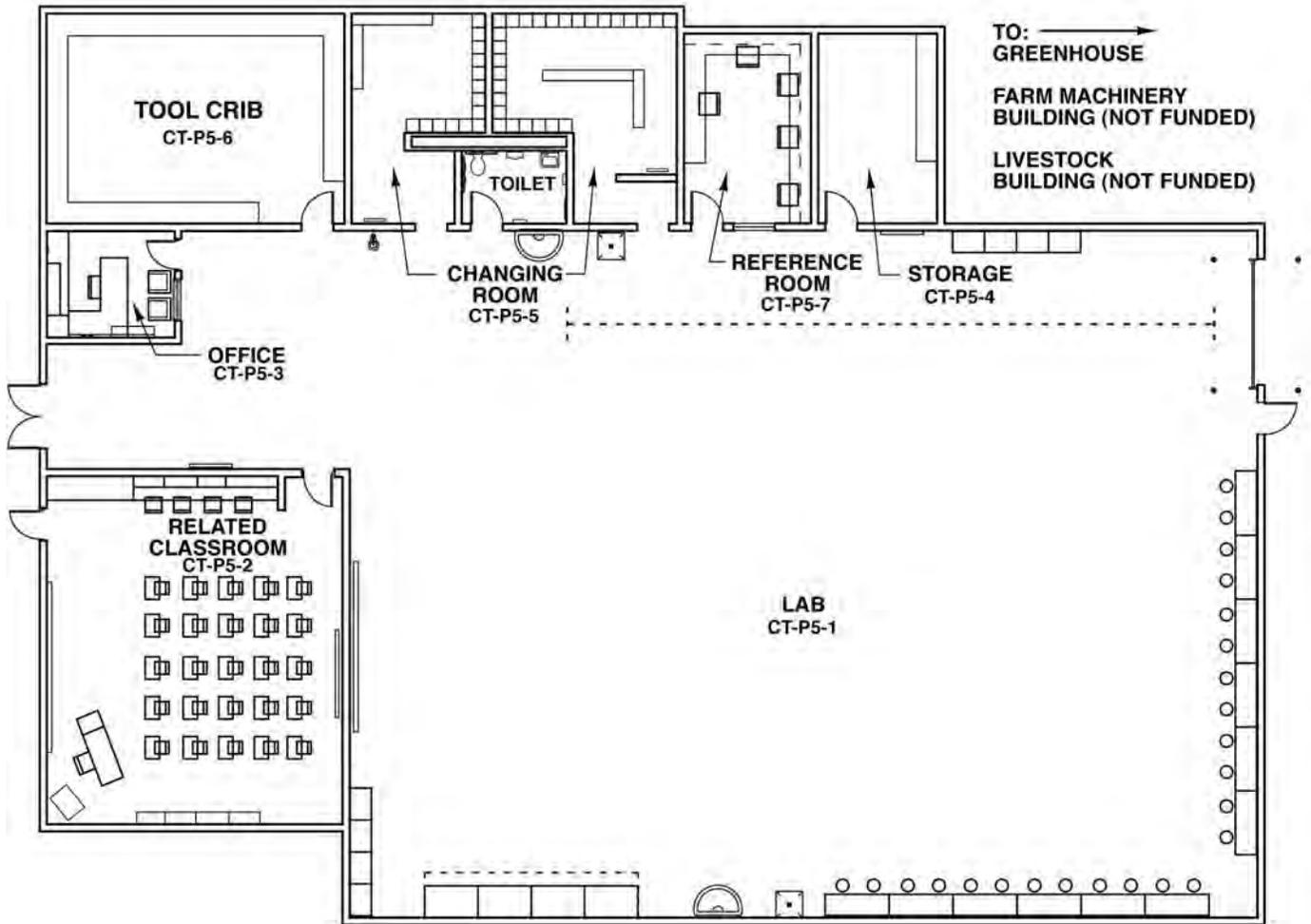
**NOTES:**

This is an example of how the Program Type 5 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 5 space plates:

CT-P5-1	Lab
CT-P5-2	Related Classroom
CT-P5-3	Office
CT-P5-4	Storage
CT-P5-5	Changing Room
CT-P5-6	Tool Crib
CT-P5-7	Reference Room
CT-P5-8	Toilet Room

**PROGRAM TYPE 5  
EXAMPLE**

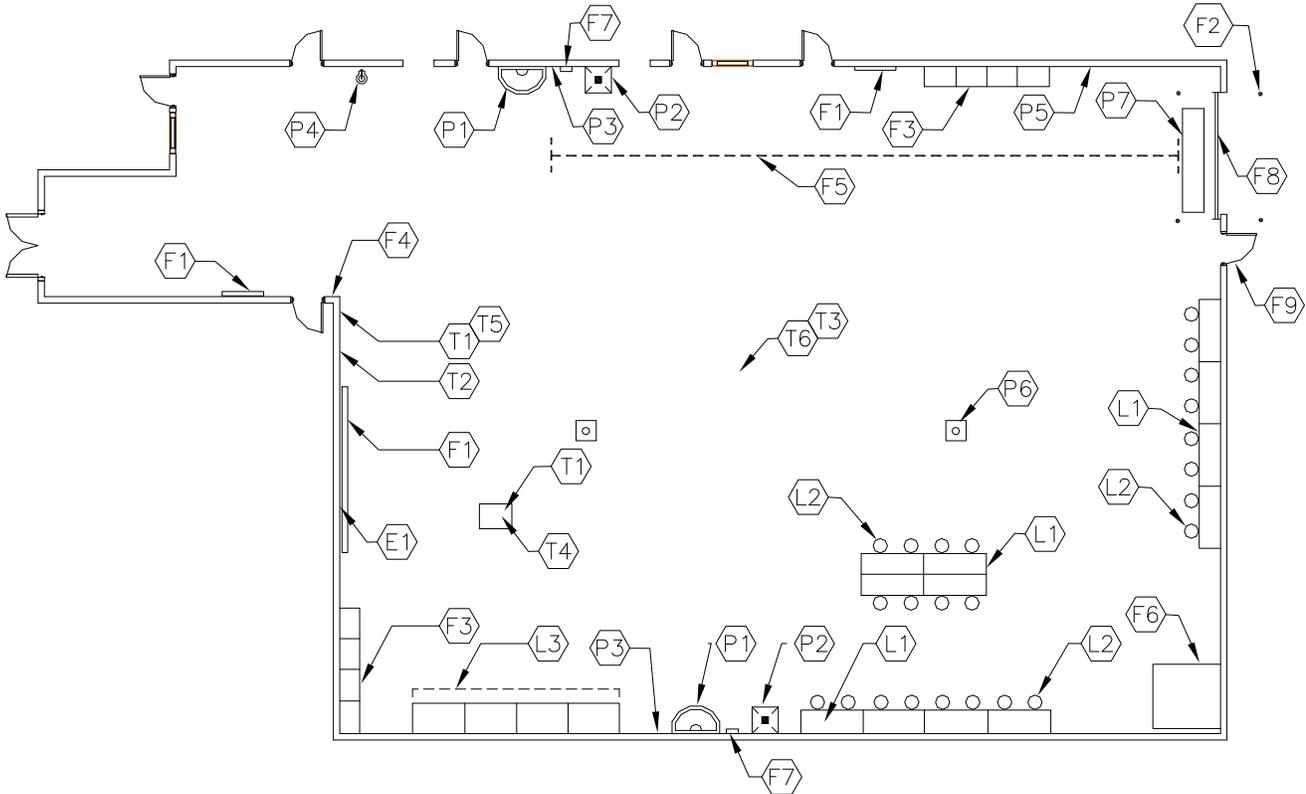


**Program Type 5**

This is an example to show the possible relationships of spaces for this program type.

**NOTES:**

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



<p>CAPACITY: 24 Students                  SIZE: 1,800 – 4,500 SF                  (see lab summaries for exact sizes)                  ANCILLARY SPACES: CT-P5-2 thru CT-P5-8</p>	
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**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

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**A0 / 01.0301 AGRIBUSINESS AND PRODUCTION  
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b><u>PROGRAM DESCRIPTION:</u></b> Applies principles of economics, business management and marketing in both an entrepreneur/manager and an employee role to the leadership, planning, development, and analyzing of business enterprises related to agriculture, food, and natural resources.</p> <p><b>Program Type:</b> 5 <b>Size Requirements:</b> 4,500 SF Lab <b>Lab Requirements:</b> Spec. <b><u>FINISHES:</u></b> <u>Ref #</u> Flooring: Sealed concrete 033000 Ceiling: Painted, exposed structure 099100 Walls: Painted concrete masonry units 042000/ 099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b> L1 (12) Workbenches with heavy-duty metal tops L2 (24) Stools or chairs L3 (4) Welding tables Wastebasket</p> <p><b><u>SITE FEATURES:</u></b> Greenhouse - 1000 SF 133413 Concrete flooring (with drains) Minimum of one 8'x10' overhead door Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations Minimum of 2 hose bibs Fire suppression system if required Plan for the following if required by school curriculum requirements: Farm machinery building Livestock building Overhead chain hoist <b>Miscellaneous:</b> Pencil sharpener (optional) <b><u>Electronic Safety and Security:</u></b> Life safety devices per code 283111 E1 Duplex receptacle with dedicated circuit for wireless devices <b><u>Communications (cont'd):</u></b> T6 Wireless access point (WAP) as determined by Design – refer to Note 2 272133</p>	<p><b><u>FEATURES<sup>1</sup>:</u></b> <b><u>Fixed Items:</u></b> F1 24' of marker board, tack board, or tackable wall surface 101100 F2 Steel bollards at overhead door, both sides 055000 F3 24' of tall storage cabinets 123550 F4 Pencil sharpener support (optional) 062000 F5 Overhead chain hoist 412223 F7 (4) Paper towel dispensers 102813 F8 12'x14' motorized overhead sectional door to exterior 083613 F9 3'x7' hollow metal service door to exterior 081113</p> <p><b><u>Fire Suppression:</u></b> Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b> P1 2 washfountains (minimum) 224000 P2 2 utility sinks (minimum) 224000 P3 2 hose bibs (minimum) 224000 P4 Safety shower/eyewash 224500 P5 6 compressed air connections 221513 P6 2 floor drains 224000 P7 1 trench drain 224000 Plumbing connections 221116/221119/224000</p> <p><b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923 Welding hood exhaust Div. 23</p> <p><b><u>Electrical:</u></b> High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 30 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726 (6) 220 volt receptacles 262726</p> <p><b><u>Communications:</u></b> T1 1 projector video port and video display device 271543/274119 T2 1 voice port and phone 271513/273123 T3 Wireless access point cable above ceiling 271513 Clock 275313 Central sound system 275123 T5 Classroom technology center video port 271543, 274116, 274119, 275127</p>
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**NOTES:**  
1. Finishes/Features: Refer to Chapter 9 for specification references.  
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

<b><u>PROGRAM DESCRIPTION:</u></b>	Specialized learning experiences that involve more intensive training in a single automotive system. Examples may include Automotive Detailing, Custom Car Prep, High Performance, Alternative Fuel, Engine Repair, and Transmission Service.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	5	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	3,500 SF Lab	24' of marker board, tack board, or	101100
Lab Requirements:		tackable wall surface	123550
		24' of tall storage cabinets	062000
		Pencil sharpener support (optional)	102813
		(4) Paper towel dispensers	083613
		12'x14' motorized overhead	081113
		sectional door to exterior	055000
		3'x7' hollow metal service door	
		to exterior	
		Steel bollards at overhead door,	
		both sides	
		<b><u>Fire Suppression:</u></b>	
		Fire suppression system	211000
<b><u>FINISHES:</u></b>	Spec.	<b><u>Plumbing:</u></b>	
Flooring:	<b><u>Ref #</u></b>	2 washfountains (minimum)	224000
<b>Sealed</b> concrete	033000	2 utility sinks (minimum)	224000
Ceiling:		2 hose bibbs (minimum)	224000
Painted, exposed structure	099100	Safety shower/eyewash	224000
Walls:		2 floor drains	224000
Painted concrete masonry units	042000/ 099100	1 trench drain	221513
		6 compressed air connections	221116/221119/224000
		Plumbing connections	
<b><u>LOOSE FURNISHINGS:</u></b>		<b><u>HVAC:</u></b>	
(8) Workbenches with heavy-duty metal tops		Supply/return air system	Div. 23
(24) Stools or chairs		Independent temperature control	230923
Wastebasket		Vehicle exhaust system	Div. 23
The following items to be funded by the School		<b><u>Electrical:</u></b>	
<b><u>District:</u></b>		High intensity lighting or	265100
Car lifts		fluorescent lighting	
<b><u>Electronic Safety and Security:</u></b>		Illumination level: See Table 8600-5	
Life safety devices per code	283111	Multilevel switching	262726
<b><u>Miscellaneous:</u></b> Pencil sharpener (optional)		30 duplex receptacles (minimum)	262726
<b><i>Duplex receptacle with dedicated circuit</i></b>		Double duplex receptacle adjacent to	
<b><i>for wireless devices</i></b>		each data and video port	262726
<b><u>Communications (cont'd):</u></b>		(6) 220 volt receptacles	262726
<b><i>Classroom technology center video port</i></b>		<b><u>Communications:</u></b>	
<b><i>271543, 274116, 274119, 275127</i></b>		1 <b>projector</b> video port and video display	
		device	271543/274119
		1 voice port and phone	271513/273123
		<b><i>Wireless access point cable above ceiling</i></b>	271513
		Clock	275313
		Central sound system	275123
		<b><i>Wireless access point (WAP) as determined</i></b>	
		<b><i>by Design – refer to Note 2</i></b>	<b><i>272133</i></b>

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**D0 / 17.1004 BRICK, BLOCK, and CEMENT MASONRY  
CT-P5-1**

<b><u>PROGRAM DESCRIPTION:</u></b>	Specialized classroom and laboratory experiences concerned with the cutting, chipping, and fixing in position of brick and concrete block. Included is instruction in the care and use of tools, equipment, and materials for the preparation and performance of masonry construction; the selection and preparation of materials used in the laying of brick and block; and training in blueprint reading, record keeping, estimating, and safety.	<b>Spec. Ref.#</b> <b>FEATURES<sup>1</sup>:</b> <b><u>Fixed Items:</u></b>														
<b>Program Type:</b>	5	24' of marker board, tack board, or tackable wall surface 101100 24' of tall storage cabinets 123550 Pencil sharpener support (optional) 062000 (4) Paper towel dispensers 102813 12'x14' motorized overhead sectional door to exterior 083613 3'x7' hollow metal service door to exterior 081113 Steel bollards at overhead door, both sides 055000														
<b>Size Requirements:</b>	3,500 SF Lab	<b><u>Fire Suppression:</u></b> Fire suppression system 211000														
<b>Lab Requirements:</b>	<table border="0"> <tr> <td><b><u>FINISHES:</u></b></td> <td><b>Spec. Ref #</b></td> </tr> <tr> <td>Flooring:</td> <td></td> </tr> <tr> <td>Sealed concrete</td> <td>033000</td> </tr> <tr> <td>Ceiling:</td> <td></td> </tr> <tr> <td>Painted, exposed structure</td> <td>099100</td> </tr> <tr> <td>Walls:</td> <td></td> </tr> <tr> <td>Painted concrete masonry units</td> <td>042000/ 099100</td> </tr> </table>	<b><u>FINISHES:</u></b>	<b>Spec. Ref #</b>	Flooring:		Sealed concrete	033000	Ceiling:		Painted, exposed structure	099100	Walls:		Painted concrete masonry units	042000/ 099100	<b><u>Plumbing:</u></b> 2 washfountains (minimum) 224000 2 utility sinks (minimum) 224000 2 hose bibbs (minimum) 224000 Safety shower/eyewash 224000 2 floor drains 224000 1 trench drain 224000 4 compressed air connections 221500 Plumbing connections 221116/221119/224000
<b><u>FINISHES:</u></b>	<b>Spec. Ref #</b>															
Flooring:																
Sealed concrete	033000															
Ceiling:																
Painted, exposed structure	099100															
Walls:																
Painted concrete masonry units	042000/ 099100															
<b><u>LOOSE FURNISHINGS:</u></b>	(12) Workbenches with heavy-duty metal tops (24) Stools or chairs Wastebasket	<b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923														
<b><u>Electronic Safety and Security:</u></b>	Life safety devices per code 283111	<b><u>Electrical:</u></b> High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 30 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726 (2) 220 volt receptacles 262726 Room safety push-button 262726														
<b><u>Miscellaneous:</u></b>	Pencil sharpener (optional)	<b><u>Communications:</u></b>														
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>	<b><i>Communications(cont'd):</i></b> <b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b> <b><i>272133</i></b>	1 <b><i>projector</i></b> video port and video display device 271543/274119 1 voice port and phone 271513/273123 <b><i>Wireless access point cable above ceiling</i></b> 271513 Clock 275313 Central sound system 275123														
<b><i>Classroom technology center video port</i></b> <b><i>271543, 274116, 274119, 275127</i></b>																

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

**D1 / 17.1011 BUILDING AND PROPERTY MAINTENANCE  
D2 / 17.1017 BUILDING TECHNOLOGY**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P5-1**

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Organized learning experiences in the classroom and laboratory concerned with the skills necessary to keep the physical structure of an office building, factory, apartment building, house, or similar structure in good repair. Included is instruction in carpentry; roofing application and repair; ceramic tile and masonry application and repair; electrical installation and repair; painting and wallpapering; and plumbing.	<u>Fixed Items:</u>	
	24' of marker board, tack board, or tackable wall surface	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support (optional)	062000
	(3) Paper towel dispensers	102813
	12'x14' motorized overhead sectional door to exterior	083613
	3'x7' hollow metal service door to exterior	081113
	Steel bollards at overhead door, both sides	055000
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	1 washfountain (minimum)	224000
	2 utility sinks (minimum)	224000
	2 hose bibbs (minimum)	224000
	Safety shower/eyewash	224000
	2 floor drains	224000
	1 trench drain	224000
	6 compressed air connections	221500
	2 natural gas connections	226313
	Master gas shut-off valve	226313
	Plumbing connections 221116/221119/224000	
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Welding hood and exhaust	Div. 23
	<u>Electrical:</u>	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	(2) 220 volt receptacles	262726
	(2) 277 volt receptacles	262726
	(2) 408 volt receptacles	262726
	Room safety push-button	262726
	<u>Communications:</u>	
	1 <b>projector</b> video port and video display device	271543/274119
	1 voice port and phone	271513/273123
<b>Program Type:</b> 5		
<b>Size Requirements:</b> 3,000 SF Lab		
Lab Requirements:		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(2) Welding tables		
Wastebasket		
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		
<u>Communications (cont'd):</u>		
<b>Wireless access point cable above ceiling</b>	271513	
Clock	275313	
Central sound system	275123	
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>	<b>272133</b>	
<b>Classroom technology center video port</b>		
<b>271543, 274116, 274119, 275127</b>		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**D6 / 17.1100 CUSTODIAL SERVICES  
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Utilizes industry standards and a math, science, ELA, and technology framework to introduce concepts of layout, assembly, installation, testing, and maintenance of electrical fixtures and apparatus, and the wiring used in electrical systems.	<u>Fixed Items:</u>	
<b>Program Type:</b> 5	24' of marker board, tack board, or tackable wall surface	101100
<b>Size Requirements:</b> 2,500 SF Lab	24' of tall storage cabinets	123550
<b>Lab Requirements:</b>	Pencil sharpener support (optional)	062000
	(3) Paper towel dispensers	102813
	12'x14' motorized overhead sectional door to exterior	083613
	3'x7' hollow metal service door to exterior	081113
	Steel bollards at overhead door, both sides	055000
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	1 washfountain (minimum)	224000
	2 utility sinks (minimum)	224000
	2 hose bibbs (minimum)	224000
	Safety shower/eyewash	224000
	2 floor drains	224000
	1 trench drain	224000
	Plumbing connections	221116/221119/224000
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	<u>Electrical:</u>	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	(6) 220 volt receptacles	262726
	<u>Communications:</u>	
	1 <b>projector</b> video port	271543
	1 voice port and phone	271513/273123
	<b>Wireless access point cable above ceiling</b>	271513
	Clock	275313
	Central sound system	275123
	<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>	<b>272133</b>
	<b>Classroom technology center video port</b>	<b>271543, 274116, 274119, 275127</b>
<u>FINISHES:</u>		
Flooring:		
Sealed concrete		033000
Ceiling:		
Painted, exposed structure		099100
Walls:		
Painted concrete masonry units		042000/ 099100
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

<b><u>PROGRAM DESCRIPTION:</u></b>	Specialized classroom and laboratory experiences concerned with the layout, assembly, installation, testing, and maintenance of electrical fixtures and apparatus, and the wiring used in electrical systems. Instruction is provided in worksite safety; electrical principles; the application of codes and standards; residential, commercial, and industrial installations including motors and specialized systems; and the reading, interpretation, and application of blueprints and wiring diagrams. A one year program option is available with an exit in residential wiring, or with an exit in commercial/industrial wiring upon the recommendation of the local advisory committee and the approval of the local board of education.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	5	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	3,000 SF Lab	24' of marker board, tack board, or tackable wall surface	101100
Lab Requirements:	Spec.	24' of tall storage cabinets	123550
<b><u>FINISHES:</u></b>	<b><u>Ref #</u></b>	Pencil sharpener support (optional)	062000
Flooring:		(3) Paper towel dispensers	102813
Sealed concrete	033000	12'x14' motorized overhead	
Ceiling:		sectional door to exterior	083613
Painted, exposed structure	099100	3'x7' hollow metal service door	
Walls:		to exterior	081113
Painted concrete masonry units	042000/ 099100	Steel bollards at overhead door,	
<b><u>LOOSE FURNISHINGS:</u></b>		both sides	055000
(12) Workbenches with heavy-duty non-conductive tops		<b><u>Fire Suppression:</u></b>	
(24) Stools or chairs		Fire suppression system	211000
Wastebasket		<b><u>Plumbing:</u></b>	
<b><u>Electronic Safety and Security:</u></b>		1 washfountain (minimum)	224000
Life safety devices per code	283111	2 utility sinks (minimum)	224000
<b><u>Miscellaneous:</u></b>		2 hose bibbs (minimum)	224000
Pencil sharpener (optional)		Safety shower/eyewash	224000
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		2 floor drains	224000
<b><u>Communications(cont'd):</u></b>		1 trench drain	224000
Clock	275313	Plumbing connections	221116/221119/224000
Central sound system	275123	<b><u>HVAC:</u></b>	
<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b>	<b>272133</b>	Supply/return air system	Div. 23
<b><i>Classroom technology center video port</i></b> <b>271543, 274116, 274119, 275127</b>		Independent temperature control	230923
<b><u>NOTES:</u></b>		<b><u>Electrical:</u></b>	
1. Finishes/Features: Refer to Chapter 9 for specification references.		High intensity lighting or	265100
2. <b><i>Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.</i></b>		fluorescent lighting	
<b>Ohio School Design Manual-CT</b>	<b>6315 - 13</b>	Illumination level: See Table 8600-5	
<b>Ohio School Facilities Commission</b>		Multilevel switching	262726
<b>2012</b>		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to	
		each data and video port	262726
		208v 3-phase service	262726
		480v 3-phase service	262726
		100 amp 208v 3-phase bus duct	262726
		100 amp 480v 3-phase bus duct	262726
		Fiber optic service	262726
		Cat 5 service	262726
		Room safety push-button	262726
		<b><u>Communications:</u></b>	
		1 <b>projector</b> video port and video display	
		device	271543/274119
		1 voice port and phone	271513/273123
		<b><i>Wireless access point cable above ceiling</i></b>	271513

**D8 / 17.0100 ENVIRONMENTAL CONTROL TECHNOLOGIES**

**CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>PROGRAM DESCRIPTION:</b>		<b>Spec.</b>
<b>Classroom and laboratory experiences that enable the student to become proficient in the installation, repair, and maintenance of residential, commercial, and industrial air-conditioning systems. Included is instruction related to electrical principles; electric motors; controls; refrigeration, heating and air-conditioning principles and practices; and piping systems.</b>		<b>Ref.#</b>
<b>Program Type:</b>	5	
<b>Size Requirements:</b>	3,000 SF Lab	
<b>Lab Requirements:</b>		
<b>FINISHES:</b>	<b>Spec. Ref #</b>	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<b>LOOSE FURNISHINGS:</b>		
(8) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(4) Welding tables		
Wastebasket		
<b>Electronic Safety and Security:</b>		
Life safety devices per code	283111	
<b>Miscellaneous:</b>		
Pencil sharpener (optional)		
Duplex receptacle with dedicated circuit for wireless devices		
<b>Communications (cont'd):</b>		
Wireless access point (WAP) as determined by Design – refer to Note 2	272133	
Classroom technology center video port	271543, 274116, 274119, 275127	
<b>FEATURES<sup>1</sup>:</b>		
<b>Fixed Items:</b>		
24' of marker board, tack board, or tackable wall surface		101100
24' of tall storage cabinets		123550
Pencil sharpener support (optional)		062000
(3) Paper towel dispensers		102813
12'x14' motorized overhead sectional door to exterior		083613
3'x7' hollow metal service door to exterior		081113
Steel bollards at overhead door, both sides		055000
<b>Fire Suppression:</b>		
Fire suppression system		211000
<b>Plumbing:</b>		
1 washfountain (minimum)		224000
2 utility sinks (minimum)		224000
2 hose bibbs (minimum)		224000
Safety shower/eyewash		224000
2 floor drains		224000
1 trench drain		224000
6 natural gas connections		226313
Master gas shut-off valve		226313
Plumbing connections		221116/221119/224000
<b>HVAC:</b>		
Supply/return air system		Div. 23
Independent temperature control		230923
Welding hood and exhaust		Div. 23
<b>Electrical:</b>		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-5		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
(2) 220 volt receptacles		262726
(2) 227 volt receptacles		262726
(2) 408 volt receptacles		262726
<b>Communications:</b>		
1 projector video port		271543
1 voice port and phone		271513/273123
Wireless access point cable above ceiling		271513
Clock		275313
Central sound system		275123

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**D9 / 17.1003 HEAVY EQUIPMENT OPERATIONS**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P5-1**

<b><u>PROGRAM DESCRIPTION:</u></b>	Classroom and practical work experiences concerned with the operation, maintenance, and repair of heavy-duty construction equipment, such as bulldozers, backhoes, cranes, graders, tractors, concrete mixers, crawler-mounted shovels, trailer-mounted compressors, and the gasoline or diesel engines powering the equipment.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	5	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	4,500 SF Lab	24' of marker board, tack board, or	101100
<b>Lab Requirements:</b>		tackable wall surface	123550
		24' of tall storage cabinets	062000
		Pencil sharpener support (optional)	102813
		(3) Paper towel dispensers	083613
		12'x14' motorized overhead	081113
		sectional door to exterior	081113
		3'x7' hollow metal service door	055000
		to exterior	
		Steel bollards at overhead door,	
		both sides	
		<b><u>Fire Suppression:</u></b>	
<b><u>FINISHES:</u></b>	Spec.	Fire suppression system	211000
	<b><u>Ref #</u></b>	<b><u>Plumbing:</u></b>	
Flooring:		1 washfountain (minimum)	224000
Sealed concrete	033000	2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
Ceiling:		Safety shower/eyewash	224000
Painted, exposed structure	099100	2 floor drains	224000
		1 trench drain	224000
Walls:		6 compressed air connections	221500
Painted concrete masonry units	042000/ 099100	Plumbing connections	221116/221119/224000
		<b><u>HVAC:</u></b>	
<b><u>LOOSE FURNISHINGS:</u></b>		Supply/return air system	Div. 23
(8) Workbenches with heavy-duty metal tops		Independent temperature control	230923
(24) Stools or chairs		<b><u>Electrical:</u></b>	
Wastebasket		High intensity lighting or	265100
		fluorescent lighting	
<b><u>Electronic Safety and Security:</u></b>		Illumination level: See Table 8600-5	
Life safety devices per code	283111	Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
<b><u>Miscellaneous:</u></b>		Double duplex receptacle adjacent to	
Pencil sharpener (optional)		each data and video port	262726
Duplex receptacle with dedicated circuit		(2) 220 volt receptacles	262726
for wireless device		<b><u>Communications:</u></b>	
<b><u>Communications (cont'd):</u></b>		1 projector video port	271543
Wireless access point (WAP) as		1 voice port and phone	271513/273123
determined by Design – refer to Note 2	272133	Wireless access point cable above ceiling	271513
		Clock	275313
Classroom technology center video port	271543, 274116, 274119, 275127	Central sound system	275123

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**R2 / 17.1012 INTEGRATED SYSTEMS TECHNOLOGY  
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Organized learning experiences in the classroom and shop concerned with the maintenance of machinery and mechanical equipment of an industrial plant or factory. Inspection, disassembly, repair, and reassembly of machines and equipment is included in the training experience. Skill training in the use of tools in several trades is also included.	<u>Fixed Items:</u>	
	24' of chalk/marker board, tack board, or tackable wall surface	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support (optional)	062000
	(4) Paper towel dispensers	102813
	12'x14' motorized overhead sectional door to exterior	083613
	3'x7' hollow metal service door to exterior	081113
	Steel bollards at overhead door, both sides	055000
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	2 washfountains (minimum)	224000
	2 utility sinks (minimum)	224000
	2 hose bibbs (minimum)	224000
	Safety shower/eyewash	224000
	2 floor drains	224000
	1 trench drain	224000
	6 compressed air connections	221500
	Plumbing connections	221116/221119/224000
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Welding hood and exhaust	Div. 23
	<u>Electrical:</u>	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	(4) 220 volt receptacles	262726
	208v 3-phase service	262726
	480v 3-phase service	262726
	Room safety push-button	262726
	<u>Communications:</u>	
	1 <b>projector</b> video port	271543
	1 voice port and phone	271513/273123
	<b>Wireless access point cable above ceiling</b>	271513
	Clock	275313
<u>PROGRAM DESCRIPTION:</u>		
Program Type: 5		
Size Requirements: 3,500 SF Lab		
Lab Requirements:		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Sealed concrete		033000
Ceiling:		
Painted, exposed structure		099100
Walls:		
Painted concrete masonry units		042000/ 099100
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(4) Welding tables		
Wastebasket		
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		
<u>Communications (cont'd):</u>		
Central sound system		275123
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>		<b>272133</b>
<b>Classroom technology center video port</b>		<b>271543, 274116, 274119, 275127</b>

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. This lab may be air-conditioned.
3. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

<b>PROGRAM DESCRIPTION:</b>		<b>FEATURES<sup>1</sup>:</b>	
Utilizes industry standards and a math, science, ELA, and technology framework to introduce concepts of the interior construction industry; including painting, wallpapering, flooring, tiling, drywall, trim, lighting, and more.		<u>Fixed Items:</u>	
<b>Program Type:</b>	5	24' of chalk/marker board, tack board, or tackable wall surface	101100
<b>Size Requirements:</b>	3,000 SF Lab	24' of tall storage cabinets	123550
<b>Lab Requirements:</b>		Pencil sharpener support (optional)	062000
		(4) Paper towel dispensers	102813
		12'x14' motorized overhead sectional door to exterior	083613
		3'x7' hollow metal service door to exterior	081113
		Steel bollards at overhead door, both sides	055000
<b>FINISHES:</b>	<u>Spec. Ref #</u>	<u>Fire Suppression:</u>	
<b>Flooring:</b>		Fire suppression system	211000
Sealed concrete	033000	<u>Plumbing:</u>	
<b>Ceiling:</b>		2 washfountains (minimum)	224000
Painted, exposed structure	099100	2 utility sinks (minimum)	224000
<b>Walls:</b>		2 hose bibbs (minimum)	224000
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash	224000
		2 floor drains	224000
		1 trench drain	224000
		Plumbing connections	221116/221119/224000
<b>LOOSE FURNISHINGS:</b>		<u>HVAC:</u>	
(12) Workbenches with heavy-duty metal tops		Supply/return air system	Div. 23
(24) Stools or chairs		Independent temperature control	230923
Wastebasket		<u>Electrical:</u>	
		High intensity lighting or fluorescent lighting	265100
<b>Electronic Safety and Security:</b>		Illumination level: See Table 8600-5	
Life safety devices per code	283111	Multilevel switching	262726
<b>Miscellaneous:</b>		30 duplex receptacles (minimum)	262726
Pencil sharpener (optional)		Double duplex receptacle adjacent to each data and video port	262726
Duplex receptacle with dedicated circuit for wireless devices		<u>Communications:</u>	
<b>Communications (cont'd):</b>		1 projector video port and video display device	271543/274119
Classroom technology center video port	271543, 274116, 274119, 275127	1 voice port and phone	271513/273123
		Wireless access point cable above ceiling	271513
		Clock	275313
		Central sound system	275123
		Wireless access point (WAP) as determined by Design – refer to Note 2	272133

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**R3 / 17.1300 MANUFACTURING DESIGN AND DEVELOPMENT**

**CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<p><u>Mfg Design &amp; Development:</u> Utilizing business and industry, math, English, science, and technology standards, introduces concepts of Design and Development Technologies: Design Process, Teamwork and Project Management, Marketing, Technical Applications, Modeling, Materials and Quality Assurance.</p> <p><b>Program Type:</b> 5  <b>Size Requirements:</b> 4,500 SF Lab  <b>Lab Requirements:</b></p> <p><u>FINISHES:</u></p> <p>Flooring:  Sealed concrete Spec. Ref # 033000</p> <p>Ceiling:  Painted, exposed structure 099100</p> <p>Walls:  Painted concrete masonry units 042000/  099100</p> <p><u>LOOSE FURNISHINGS:</u>  (12) Workbenches with heavy-duty metal tops  (24) Stools or chairs  Wastebasket</p> <p><u>Electronic Safety and Security:</u>  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>  Pencil sharpener (optional)  <b>Duplex receptacle with dedicated circuit for wireless devices</b></p> <p><u>Communications (cont'd):</u>  Central sound system 275123  <b>Wireless access point (WAP) as determined by Design – refer to Note 2 272133</b>  <b>Classroom technology center video port 271543, 274116, 274119, 275127</b></p>	<p><u>Fixed Items:</u>  24' of marker board, tack board, or tackable wall surface 101100  24' of tall storage cabinets 123550  Pencil sharpener support (optional) 062000  (3) Paper towel dispensers 102813  12'x14' motorized overhead sectional door to exterior 083613  3'x7' hollow metal service door to exterior 081113  Steel bollards at overhead door, both sides 055000</p> <p><u>Fire Suppression:</u>  Fire suppression system 211000</p> <p><u>Plumbing:</u>  1 washfountain (minimum) 224000  2 utility sinks (minimum) 224000  2 hose bibbs (minimum) 224000  Safety shower/eyewash 224000  2 floor drains 224000  1 trench drain 224000  6 compressed air connections 221500  Plumbing connections 221116/221119/224000</p> <p><u>HVAC:</u>  Supply/return air system Div. 23  Independent temperature control 230923</p> <p><u>Electrical:</u>  High intensity lighting or fluorescent lighting 265100  Illumination level: See Table 8600-5  Multilevel switching 262726  30 duplex receptacles (minimum) 262726  Double duplex receptacle adjacent to each data and video port 262726  (4) 220 volt receptacles 262726  208v 3-phase service 262726  480v 3-phase service 262726  Room safety push-button 262726</p> <p><u>Communications:</u>  1 <b>projector</b> video port and video display device 271543/274119  1 voice port and phone 271513/273123  <b>Wireless access point cable above ceiling</b> 271513  Clock 275313</p>	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

<b><u>PROGRAM DESCRIPTION:</u></b>	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
Applies science to management and protection of renewable and non-renewable resources; includes fundamentals of land use, watersheds, wildlife, fisheries and forestry. Communications, business principles and leadership skill development are essential to the program.	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Program Type:</b> 5	24' of marker board, tack board, or tackable wall surface	101100
<b>Size Requirements:</b> 3,000 SF Lab	24' of tall storage cabinets	123550
Lab Requirements: Spec.	Pencil sharpener support (optional)	062000
<b><u>FINISHES:</u></b>	(3) Paper towel dispensers	102813
Flooring: Sealed concrete	12'x14' motorized overhead	
Ceiling:	sectional door to exterior	083613
Painted, exposed structure	3'x7' hollow metal service door	
Walls:	to exterior	081113
Painted concrete masonry units	Steel bollards at overhead door,	
	both sides	055000
	<b><u>Fire Suppression:</u></b>	
	Fire suppression system	211000
	<b><u>Plumbing:</u></b>	
<b><u>LOOSE FURNISHINGS:</u></b>	1 washfountain (minimum)	224000
(12) Workbenches with heavy-duty metal tops	2 utility sinks (minimum)	224000
(24) Stools or chairs	2 hose bibbs (minimum)	224000
(2) Welding tables	Safety shower/eyewash	224000
Wastebasket	2 floor drains	224000
<b><u>Miscellaneous:</u></b>	1 trench drain	224000
Pencil sharpener (optional)	6 compressed air connections	221500
<b><u>SITE FEATURES:</u></b>	4 natural gas connections	226313
Greenhouse – 1,000 SF	Master gas shut-off valve	226313
▪ ½ earth flooring, ½ concrete flooring	Plumbing connections	221116/221119/224000
(with floor drains)	<b><u>HVAC:</u></b>	
▪ Minimum of one 8'x10' overhead door	Supply/return air system	Div. 23
▪ Provide electrical, plumbing, and	Independent temperature control	230923
heating/ventilation systems as per	Welding hood and exhaust	Div. 23
greenhouse manufacturer's	<b><u>Electrical:</u></b>	
recommendations.	High intensity lighting or	265100
▪ Minimum of 4 hose bibbs	fluorescent lighting	
▪ Fire suppression system if required	Illumination level: See Table 8600-5	
<b><u>Electronic Safety and Security:</u></b>	Multilevel switching	262726
Life safety devices per code	30 duplex receptacles (minimum)	262726
283111	Double duplex receptacle adjacent to	
<b><u>Communications (cont'd):</u></b>	each data and video port	262726
<b><i>Duplex receptacle with dedicated circuit</i></b>	(4) 220 volt receptacles	262726
<b><i>for wireless devices</i></b>	<b><u>Communications:</u></b>	
<b><i>Wireless access point (WAP) as</i></b>	1 <b>projector</b> video port and video display	
<b><i>determined by Design – refer to Note 2</i></b>	Device	271543/274119
<b><i>272133</i></b>	1 voice port and phone	271513/273123
<b><i>Classroom technology center video port</i></b>	<b><i>Wireless access point cable above ceiling</i></b>	271513
<b><i>271543, 274116, 274119, 275127</i></b>	Clock	275313
	Central sound system	275123

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**DB / 17.1007 PLUMBING AND PIPEFITTING  
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Specialized classroom and laboratory experiences concerned with layout, assembly, installation, alteration, and repair of piping systems and related fixtures and fittings. Included is instruction in the use of pipe-cutting, bending, grooving, and threading tools; the maintenance and use of welding, soldering, and brazing equipment; the care and safe use of hand and power tools and equipment; and the reading, interpretation, and application of blueprints and piping diagrams.	<u>Fixed Items:</u>	
	24' of marker board, tack board, or tackable wall surface	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support (optional)	062000
	(3) Paper towel dispensers	102813
	12'x14' motorized overhead sectional door to exterior	083613
	3'x7' hollow metal service door to exterior	081113
	Steel bollards at overhead door, both sides	055000
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	1 washfountain (minimum)	224000
	2 utility sinks (minimum)	224000
	2 hose bibbs (minimum)	224000
	Safety shower/eyewash	224000
	2 floor drains	224000
	1 trench drain	224000
	6 compressed air connections	221500
	6 natural gas connections	226313
	Master gas shut-off valve	226313
	Plumbing connections	221116/221119/224000
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Welding hood and exhaust	Div. 23
	Individual exhaust system for each gas-fired piece of equipment	Div. 23
	<u>Electrical:</u>	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	(6) 220 volt receptacles	262726
	Room safety push-button	262726
	<u>Communications:</u>	
	1 <b>projector</b> video port and video display device	271543/274119
	1 voice port and phone	271513/273123
<b>Program Type:</b> 5		
<b>Size Requirements:</b> 3,000 SF Lab		
Lab Requirements:		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Sealed concrete		033000
Ceiling:		
Painted, exposed structure		099100
Walls:		
Painted concrete masonry units		042000/ 099100
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(4) Welding tables		
Wastebasket		
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		
<u>Communications (cont'd):</u>		
<b>Wireless access point cable above ceiling</b>		271513
Clock		275313
Central sound system		275123
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>		<b>272133</b>
<b>Classroom technology center video port</b>		<b>271543, 274116, 274119, 275127</b>

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

<b><u>PROGRAM DESCRIPTION:</u></b>	Training in this program focuses on 2 and 4 cycle gasoline powered engines and their use in outdoor power and recreational equipment. This includes the basic service and preventative maintenance of equipment.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	5	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	3,500 SF Lab	24' of marker board, tack board, or tackable wall surface	101100
Lab Requirements:		24' of tall storage cabinets	123550
		Pencil sharpener support (optional)	062000
		(4) Paper towel dispensers	102813
		12'x14' motorized overhead	
		sectional door to exterior	083613
		3'x7' hollow metal service door	
		to exterior	081113
		Steel bollards at overhead door,	
		both sides	055000
		<b><u>Fire Suppression:</u></b>	
		Fire suppression system	211000
<b><u>FINISHES:</u></b>	Spec.	<b><u>Plumbing:</u></b>	
Flooring:	<b><u>Ref #</u></b>	2 washfountains (minimum)	224000
Sealed concrete	033000	2 utility sinks (minimum)	224000
Ceiling:		2 hose bibbs (minimum)	224000
Painted, exposed structure	099100	Safety shower/eyewash	224000
Walls:		4 floor drains	224000
Painted concrete masonry units	042000/ 099100	1 trench drain	224000
		6 compressed air connections	221500
		Plumbing connections	221116/221119/224000
<b><u>LOOSE FURNISHINGS:</u></b>		<b><u>HVAC:</u></b>	
(12) Workbenches with heavy-duty metal tops		Supply/return air system	Div. 23
(24) Stools or chairs		Independent temperature control	230923
(2) Welding tables		Welding hood and exhaust	Div. 23
Wastebasket		<b><u>Electrical:</u></b>	
<b><u>Electronic Safety and Security:</u></b>		High intensity lighting or	265100
Life safety devices per code	283111	fluorescent lighting	
<b><u>Miscellaneous:</u></b>		Illumination level: See Table 8600-5	
Pencil sharpener (optional)		Multilevel switching	262726
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>		30 duplex receptacles (minimum)	262726
<b><u>Communications (cont'd):</u></b>		Double duplex receptacle adjacent to	
<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b>	<b>272133</b>	each data and video port	262726
<b><i>Classroom technology center video port</i></b>	<b>271543, 274116, 274119, 275127</b>	(6) 220 volt receptacles	262726
		<b><u>Communications:</u></b>	
		1 <b>projector</b> video port and video display	
		device	271543/274119
		1 voice port and phone	271513/273123
		<b><i>Wireless access point cable above ceiling</i></b>	271513
		Clock	275313
		Central sound system	275123

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**F4 / 17.1402 POWER TRANSMISSION  
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Specialized classroom and laboratory experiences concerned with erecting and maintaining power lines and circuits for transmission and distribution of electrical power, and assembling and erecting related equipment and structures.	<u>Fixed Items:</u>	
	24' of marker board, tack board, or tackable wall surface	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support (optional)	062000
	(4) Paper towel dispensers	102813
	12'x14' motorized overhead sectional door to exterior	083613
	3'x7' hollow metal service door to exterior	081113
	Steel bollards at overhead door, both sides	055000
	Provide (6) holes in floor to accommodate utility poles. Provide removable metal covers when not in use.	
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	1 washfountain (minimum)	224000
	2 utility sinks (minimum)	224000
	2 hose bibbs (minimum)	224000
	Safety shower/eyewash	224000
	2 floor drains	224000
	1 trench drain	224000
	6 compressed air connections	221500
	Plumbing connections	221116/221119/224000
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	<u>Electrical:</u>	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	<u>Communications:</u>	
	1 <b>projector</b> video port and video display device	271543/274119
	1 voice port and phone	271513/273123
	<b>Wireless access point cable above ceiling</b>	271513
	Clock	275313
	Central sound system	275123
<u>PROGRAM DESCRIPTION:</u>		
Specialized classroom and laboratory experiences concerned with erecting and maintaining power lines and circuits for transmission and distribution of electrical power, and assembling and erecting related equipment and structures.		
<b>Program Type:</b> 5		
<b>Size Requirements:</b> 3,500 SF Lab		
<b>Lab Requirements:</b>		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Sealed concrete		033000
Ceiling:		
Painted, exposed structure		099100
Walls:		
Painted concrete masonry units		042000/ 099100
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		
<u>Communications (cont'd):</u>		
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>		<b>272133</b>
<b>Classroom technology center video port</b>		<b>271543, 274116, 274119, 275127</b>

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

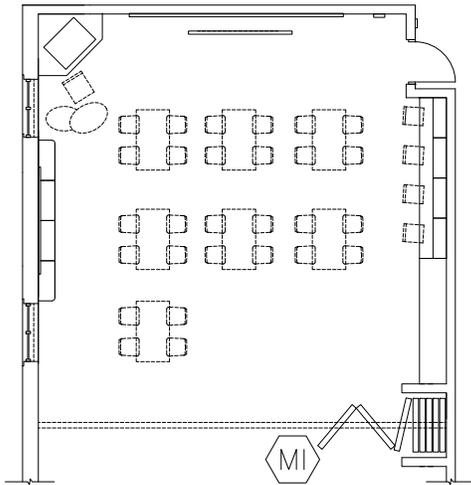
**R6 / 17.2306 WELDING and CUTTING  
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

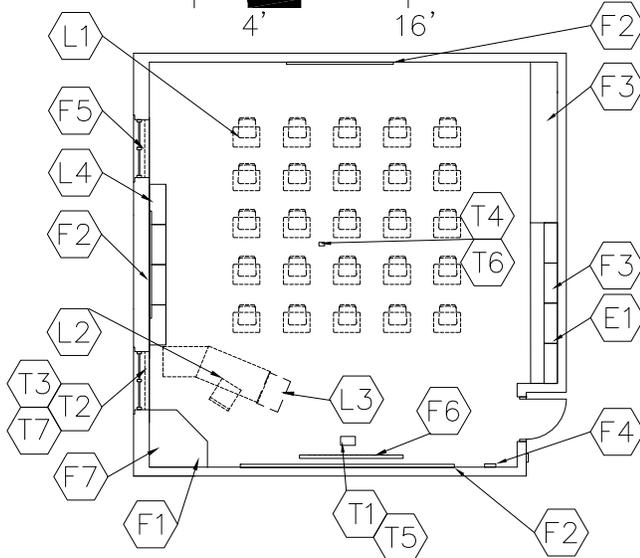
<p><b><u>PROGRAM DESCRIPTION:</u></b> Utilizing business and industry, math, science, and technology standards, introduces concepts of metal welding, brazing, and flame cutting.</p> <p><b>Program Type:</b> 5 <b>Size Requirements:</b> 3,500 SF Lab <b>Lab Requirements:</b></p> <p style="text-align: right;">Spec. <u>Ref #</u></p> <p><b><u>FINISHES:</u></b> Flooring: Sealed concrete 033000</p> <p>Ceiling: Painted, exposed structure 099100</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b> (20) Welding tables with heavy-duty metal tops (24) Stools or chairs (4) 4'x4' metal worktables (1) Steel tube storage rack (1) Sheet steel storage rack Wastebasket</p> <p><b><u>Electronic Safety and Security:</u></b> Life safety devices per code 283111</p> <p><b><u>Miscellaneous:</u></b> Pencil sharpener (optional) The following item may be funded by the school district: Overhead hoist crane <b>Duplex receptacle with dedicated circuit for wireless devices</b> <b>Communications (cont'd):</b> Central sound system 275123 <b>Wireless access point (WAP) as determined by Design – refer to Note 2</b> <b>272133</b> <b>Classroom technology center video port</b> <b>271543, 274116, 274119, 275127</b></p>	<p><b><u>FEATURES<sup>1</sup>:</u></b> <b><u>Fixed Items:</u></b> 24' of marker board, tack board, or tackable wall surface 101100 24' of tall storage cabinets 123550 Pencil sharpener support (optional) 062000 (3) Paper towel dispensers 102813 12'x14' motorized overhead sectional door to exterior 083613 3'x7' hollow metal service door to exterior 081113 Steel bollards at overhead door, both sides 055000</p> <p><b><u>Fire Suppression:</u></b> Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b> 1 washfountain (minimum) 224000 2 utility sinks (minimum) 224000 2 hose bibbs (minimum) 224000 Safety shower/eyewash 224000 2 floor drains 224000 1 trench drain 224000 6 compressed air connections 221500 Plumbing connections 221116/221119/224000</p> <p><b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923 Welding hood and exhaust Div. 23</p> <p><b><u>Electrical:</u></b> High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 30 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726 (6) 220 volt receptacles 262726 480v 3-phase service 262726 Room safety push-button 262726</p> <p><b><u>Communications:</u></b> 1 <b>projector</b> video port and video display device 271543/274119 1 voice port and phone 271513/273123 <b>Wireless access point cable above ceiling</b> 271513 Clock 275313</p>
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- NOTES:**
1. Finishes/Features: Refer to Chapter 9 for specification references.
  2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

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CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

**CAPACITY:** 25 students  
**SIZE:** 900 SF

**PROGRAM ACTIVITIES:**

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

**SPATIAL RELATIONSHIPS:**

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.  
Recommended: Daylighting design with glazing area determined by design solution.
- Environmental sound control -  
wall only minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

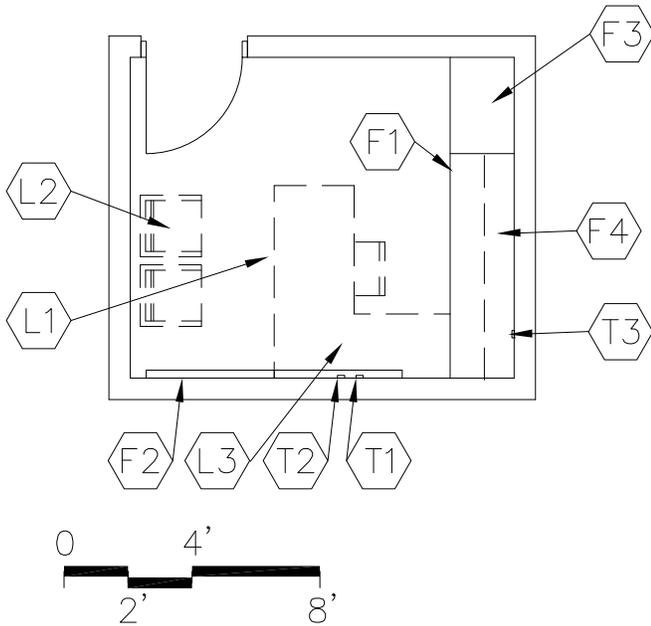
**RELATED CLASSROOM  
CT-P5-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	<b>F1</b> Tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500 096813	<b>F2</b> 20'-32' combination marker board, tack board and tackable wall surface	101100
<u>Base:</u>		<b>F3</b> 18'-24' combination base and wall cabinets	123550
Resilient base	096500	<b>F4</b> Pencil sharpener support (optional)	062000
<u>Ceiling:</u>		<b>F5</b> Windows with integral blinds	085113
Suspended, acoustical	095113	<b>F6</b> Projection screen (optional)	115213
<u>Walls:</u>		<b>F7</b> Technology support casework	123550
Painted concrete masonry units	042000/099100	<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Student desks and chairs		Supply/return air system	Div. 23
L2 Teacher desk or workstation/computer support and chair		Independent temperature control	230923
L3 File cabinet		<u>Electrical:</u>	
L4 9' of low bookcases (fixed or mobile) Wastebasket		Fluorescent lighting:	265100
		Illumination level: See Table 8600-5	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 <b>projector</b> video port	271543
		T2 1 voice port and phone	271513/273123
		T3 1 data port near teacher workstation	271513
		T4 <b>Wireless access point cable above ceiling</b>	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
<u>Miscellaneous:</u>		T5 <b>Ultra-short throw interactive</b> projector	274119
Pencil sharpener ( <i>optional</i> )		T6 <b>Wireless access point (WAP) as determined by Design – refer to Note 4</b>	272133
M1 Operable partitions between classrooms are optional	02226	T7 <b>Classroom technology center video port</b>	271543, 274116, 274119, 275127
<b>E1 Duplex receptacle with dedicated circuit for wireless devices</b>		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.
4. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**



**PROGRAM ACTIVITIES:**

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

**SPATIAL RELATIONSHIPS:**

- Near related lab
- Direct access to school circulation areas

**ENVIRONMENTAL CONSIDERATIONS:**

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P5-3**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271513
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

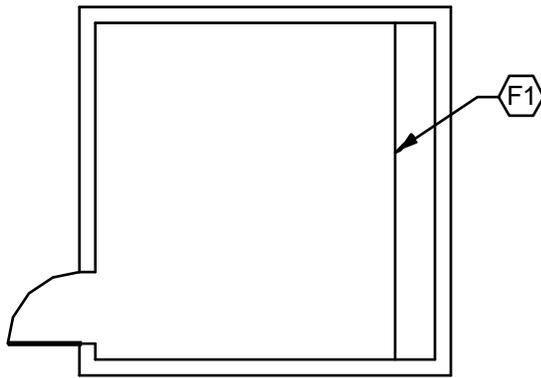
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:  
SIZE:

N/A  
200 SF

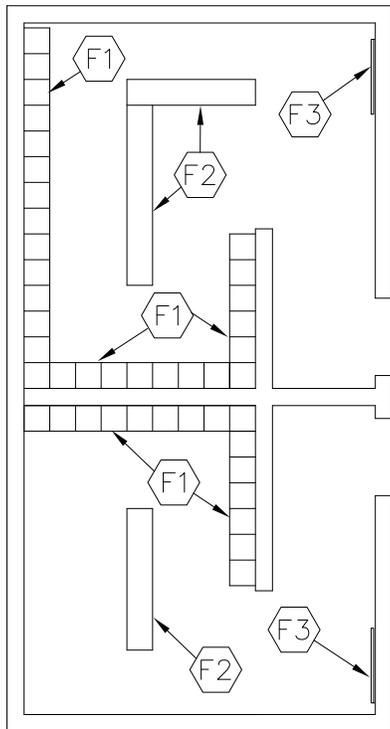
NOTES:

**STORAGE AREA  
CT-P5-4**

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**PROGRAM ACTIVITIES:**

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
Wall minimum STC 40  
Ceiling minimum CAC 35, NRC 0.70

CAPACITY: N/A  
 SIZE: 9 SF per student (see Note 2)

**NOTES:**

1. Large and small changing areas are interchangeable for either males or females.  
Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times 30.

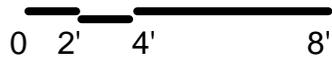
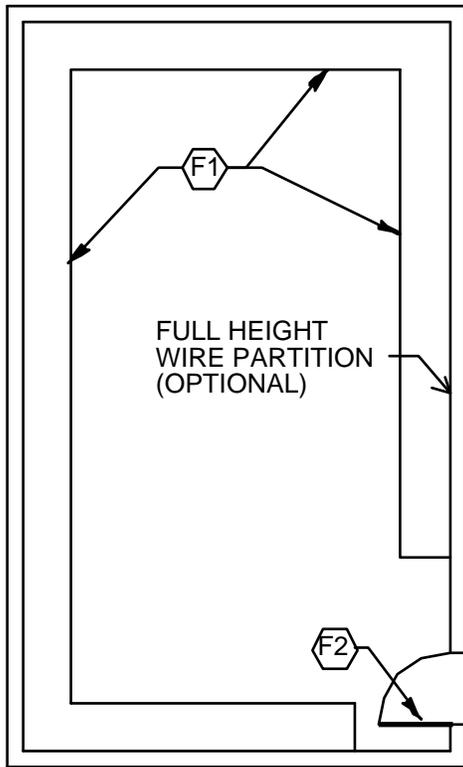
**CHANGING ROOM  
CT-P5-4**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items<sup>1</sup>:</u>	
Polished concrete finishing, or colored concrete finishing	033510 033519	F1 Student lockers	105113
Optional: linoleum, or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical with high impact hold down clips	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Supply/Return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-6	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



CAPACITY:  
SIZE:  
ANCILLARY SPACES:

N/A  
550 SF

**PROGRAM ACTIVITIES:**

- Storage of program related tools and instruments.
- Storage of students' tools.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes

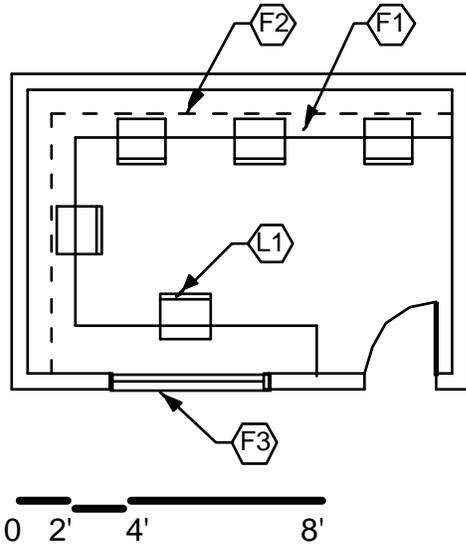
**TOOL CRIB  
CT-P5-6**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES</u> <sup>1</sup> :		<u>FEATURES</u> <sup>1</sup> :	
Flooring:		<u>Fixed Items</u> <sup>1</sup> :	
<b>Sealed</b> concrete	033000	F1 80' of open metal shelving (total), Depth may vary (fixed or loose)	105613
Optional: linoleum, or rubber	096500 096516	F2 Dutchdoor	105613
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**PROGRAM ACTIVITIES:**

- Individual computer research.
- Reference program specific manuals.
- Small group meetings.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes
- Environmental sound control
  - Wall minimum STC 45
  - Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
200 SF

NOTES:

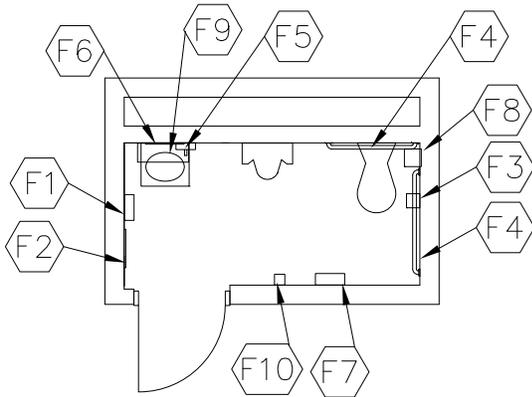
**REFERENCE ROOM  
CT-P5-7**

**CHAPTER 6: CAREER-TECHNICAL SCHOOL**

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
Flooring:		<u>Fixed Items:</u>	
<b>Sealed</b> concrete	033000	F1 34' of plastic lam. counter	062000
Base:		F2 27' of adjustable shelving	062000
Resilient base	096500	F3 Interior window	081113 / 088000
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted concrete masonry units	042000 / 099100	N/A	
<u>LOOSE FURNISHINGS</u>		<u>HVAC:</u>	
L3 Student chairs		Supply/return air system	Div. 23
Wastebasket		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		2 Duplex receptacles	262726
		Duplex receptacle adjacent to	
		Each data and video port	262726
		<u>Communications:</u>	
		T1 6 data ports	271513
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**PROGRAM ACTIVITIES:**

- Personal and health needs for the program
- Specific users
- Changing of clothes and/or uniforms.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
 Wall minimum STC 48  
 Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
68 SF

NOTES:

**TOILET ROOM  
CT-P5-8**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#
<b><u>FINISHES<sup>1</sup>:</u></b>	
Sealed concrete	033000
Optional: rubber	096500
<b>Base:</b>	
Resilient base	096500
<b>Ceiling:</b>	
Suspended, acoustical	095113
<b>Walls:</b>	
Painted concrete masonry units	042000 / 099100

**LOOSE FURNISHINGS**

Wastebaskets

	Spec. Ref.#
<b><u>FEATURES<sup>1</sup>:</u></b>	
<b><u>Fixed Items:</u></b>	
F1 Towel dispenser	102813
F2 24" x 60" mirror	102813
F3 Toilet tissue holder	102813
F4 36" and 42" grab bars	102813
F5 Soap dispenser	102813
F6 16" x 24" mirror	102813
F7 Sanitary product dispenser	102813
F8 Sanitary product receptacle	102813
F9 Stainless steel shelf (optional)	102813
F10 Coat hook	102813

**Fire Suppression:**

Fire suppression system 211000

**Plumbing:**

Plumbing connections  
221116/221119/224000

**HVAC:**

Supply/return air system Div. 23  
Exhaust air system Div. 23  
Supplemental heat as required Div. 23  
Individual temperature control 230923

**Electrical:**

Single level switching 262726  
Fluorescent lighting 265100  
Illumination level: See Table 8600-5  
2 Duplex receptacles 262726  
Means of egress lighting per code 265100

**Communications:**

Clock 275313

**Electronic Safety and Security:**

Life safety devices per code 283111

**Miscellaneous:**

N/A

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

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**Program Type 6**

Description: Medium to large sized lab space with enhanced support space.

Lab space to be “high-bay” (18’ min. clearance) with exposed building structure.

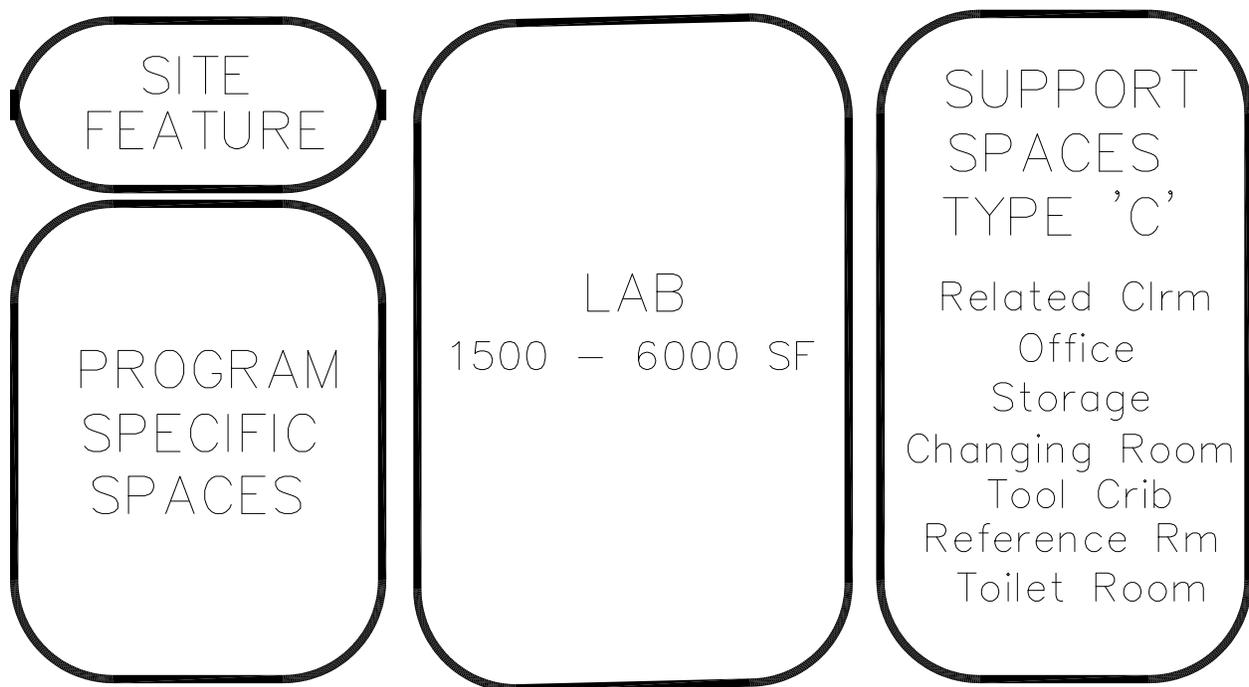
Lab to utilize standard construction with the following exception – lab floor slab to be 8” thick.

Support space to be finished with sealed concrete or vinyl composition tile, paint, and suspended acoustical ceiling. Lab may have possible site feature.

Related classroom, office, changing room, reference room, and toilet room may be air-conditioned.

Program specific spaces may be air-conditioned if the space is self-contained and curriculum and use require air-conditioning. High bay labs have no air-conditioning unless noted otherwise.

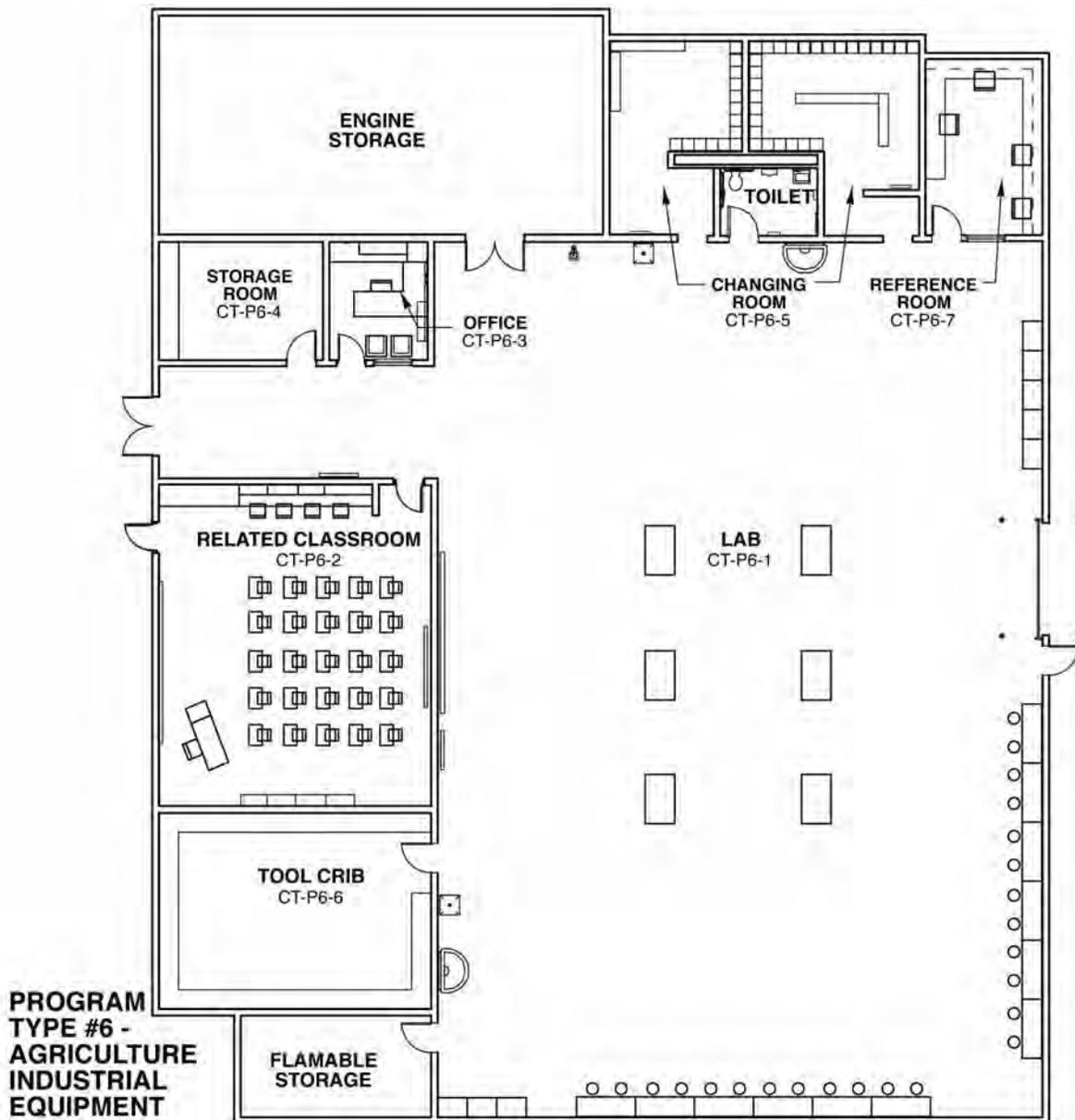
**Where necessary, include emergency shut-off switch for equipment.**

**NOTES:**

This is an example of how the Program Type 6 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 6 space plates:

CT-P6-1	Lab
CT-P6-2	Related Classroom
CT-P6-3	Office
CT-P6-4	Storage
CT-P6-5	Changing Room
CT-P6-6	Tool Crib
CT-P6-7	Reference Room
CT-P6-8	Toilet Room

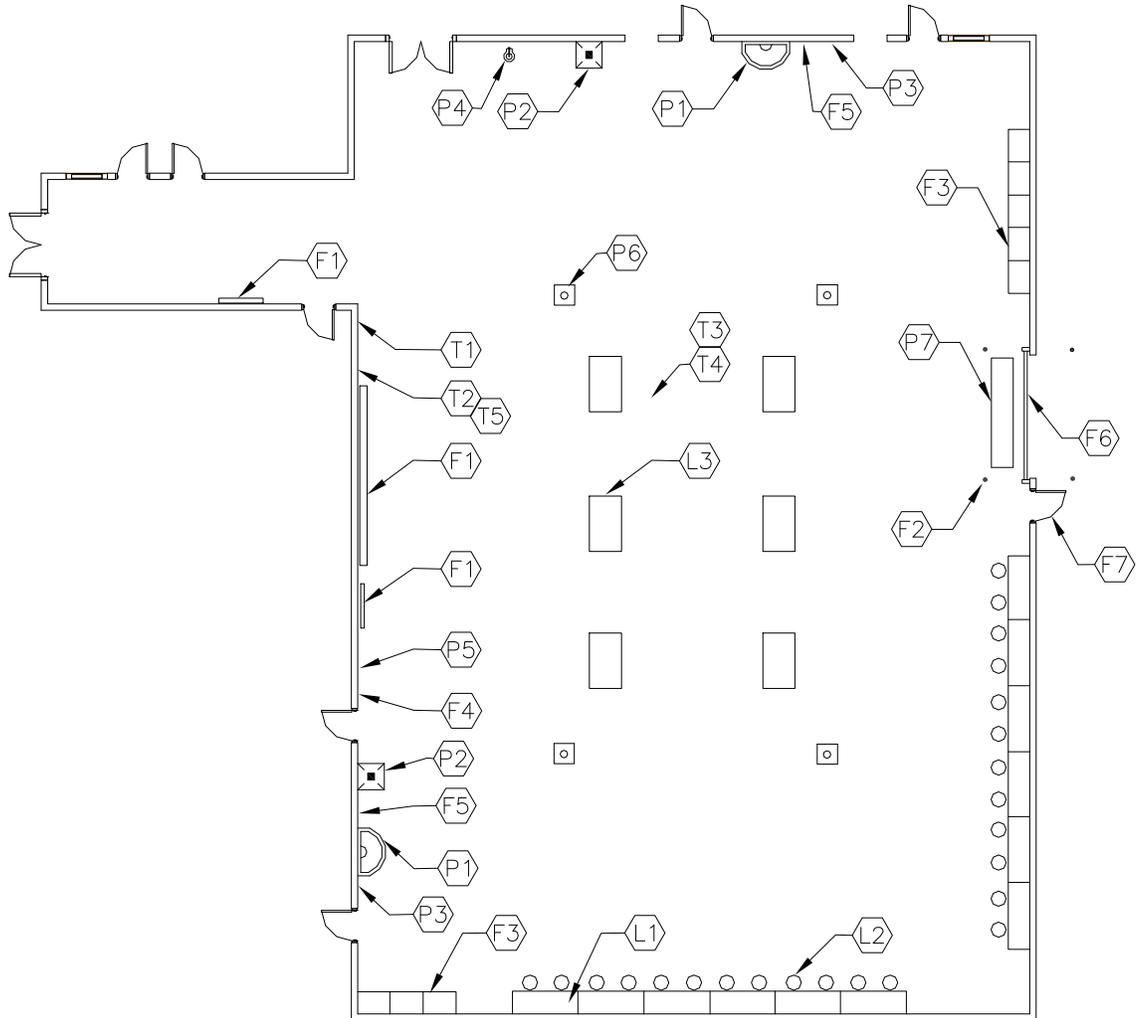


**Program Type 6**

This is an example to show the possible relationships of spaces for this program type.

**NOTES:**

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	1,500 – 6,000 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P6-2 thru CT-P6-8

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

<b><u>PROGRAM DESCRIPTION:</u></b>	Programs provide instruction in the operations or processes concerned with the selection, operation maintenance, and use of agricultural power, agricultural machinery and equipment, structures and utilities, soil and water management.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	6	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	5,000 SF Lab	F1 24' of marker board, tack board, or tackable wall surface	101100
Lab Requirements:	Spec.	F2 Steel bollards at overhead door, both sides	055000
<b><u>FINISHES:</u></b>	<b><u>Ref #</u></b>	F3 24' of tall storage cabinets	123550
Flooring:	033000	F4 Pencil sharpener support (optional)	062000
Sealed concrete		F5 (4) Paper towel dispensers	102813
Ceiling:	099100	F6 12'x14' motorized overhead sectional door to exterior	083613
Painted, exposed structure		F7 3'x7' hollow metal service door to exterior	081113
Walls:	042000/ 099100	<b><u>Fire Suppression:</u></b>	211000
Painted concrete masonry units		Fire suppression system	
<b><u>LOOSE FURNISHINGS:</u></b>		<b><u>Plumbing:</u></b>	
L1 (12) Workbenches with heavy-duty metal tops		P1 2 washfountains (minimum)	224000
L2 (24) Stools or chairs		P2 2 utility sinks (minimum)	224000
L3 (6) Welding tables		P3 2 hose bibbs (minimum)	224000
Wastebasket		P4 Safety shower/eyewash	224000
<b><u>Electronic Safety and Security:</u></b>		P5 6 compressed air connections	221500
Life safety devices per code	283111	P6 4 floor drains	224000
<b><u>Miscellaneous:</u></b>		P7 1 trench drain	224000
Pencil sharpener (optional)		Plumbing connections	221116/221119/224000
E1 Duplex receptacle with dedicated circuit for wireless devices		<b><u>HVAC:</u></b>	
<b><u>Communications (cont'd):</u></b>		Supply/return air system	Div. 23
Clock	275313	Independent temperature control	230923
Central sound system	275123	Welding hood and exhaust	Div. 23
T4 Wireless access point (WAP) as determined by Design – refer to Note 2	272133	Vehicle exhaust system	Div. 23
T5 Classroom technology center video port	271543, 274116, 274119, 275127	<b><u>Electrical:</u></b>	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(6) 220 volt receptacles	262726
		<b><u>Communications:</u></b>	
		T1 1 projector video port and video display device	271543/274119
		T2 1 voice port and phone	271513/273123
		T3 Wireless access point cable above ceiling	271513

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.



**Flammable Material Storage**

<b>Program Type:</b> 6	Spec. Ref #	<u>FEATURES<sup>1</sup>:</u>	Spec.
<b>Size Requirements:</b> 200 SF		<u>Fixed Items:</u>	Ref.#
		N/A	
<b>Requirements:</b>		<u>Fire Suppression:</u>	
		Fire suppression system	211000
<u>FINISHES:</u>		<u>Plumbing:</u>	
Flooring:		N/A	
Sealed concrete	033000		
Ceiling:		<u>HVAC:</u>	
Fire-rated gypsum wallboard	092113	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
Walls:		<u>Electrical:</u>	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Single level switching	262726
		2 duplex receptacles	262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>	
N/A		Central sound system	275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>	
<ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**T1 / 17.0301 AUTO COLLISION REPAIR  
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Specialized learning experiences concerned with all phases of the repair of damaged vehicle bodies and frames. Areas of instruction may include: Painting and Refinishing, Mechanical/Electrical Repair, Structural and Non-Structural Repair.	<u>Fixed Items:</u>	
	24' of marker board, tack board, or tackable wall surface	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support (optional)	062000
	(4) Paper towel dispensers	102813
	12'x14' motorized overhead sectional door to exterior	083613
	3'x7' hollow metal service door to exterior	081113
	Steel bollards at overhead door, both sides	055000
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	2 washfountains (minimum)	224000
	2 utility sinks (minimum)	224000
	2 hose bibbs (minimum)	224000
	Safety shower/eyewash	224000
	8 compressed air connections	221500
	4 floor drains	224000
	1 trench drain	224000
	Plumbing connections	221116/221119/224000
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	<u>Electrical:</u>	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	(4) 220 volt receptacles	262726
	<u>Communications:</u>	
	1 <b>projector</b> video port and video display device	271543/274119
	1 voice port and phone	271513/273123
	<b>Wireless access point cable above ceiling</b>	271513
	Clock	275313
	Central sound system	275123
<u>PROGRAM DESCRIPTION:</u>		
Spec. Ref. #		
<b>Program Type:</b> 6		
<b>Size Requirements:</b> 5,000 SF Lab		
Lab Requirements:		
<u>FINISHES:</u>	Spec. Ref. #	
Flooring:		
Sealed concrete		033000
Ceiling:		
Painted, exposed structure		099100
Walls:		
Painted concrete masonry units		042000/ 099100
<u>LOOSE FURNISHINGS:</u>		
(6) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		
<u>Communications (cont'd):</u>		
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>		<b>272133</b>
<b>Classroom technology center video port</b>		<b>271543, 274116, 274119, 275127</b>
<u>The following items are to be funded by the School District:</u>		
Car lifts		
Frame racks		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**T1 / 17.0301 AUTO COLLISION REPAIR  
Auto Parts Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 6	Spec. Ref #	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<b>Size Requirements:</b> 300 SF		Fixed Items: 30' of heavy duty adjustable steel shelving	105613
<b>Requirements:</b>		<u>Fire Suppression:</u>	
<u>FINISHES:</u>		Fire suppression system	211000
Flooring:	033000	<u>Plumbing:</u>	
Sealed concrete		N/A	
Ceiling:		<u>HVAC:</u>	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
Walls:		<u>Electrical:</u>	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Single level switching	262726
		4 duplex receptacles	262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>	
N/A		Central sound system	275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>	
<ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**T9 GROUND TRANSPORTATION  
T3 / 17.0302 AUTO TECHNOLOGY  
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b><u>PROGRAM DESCRIPTION:</u></b>		
Learning experiences involving the service and repair of the mechanical components of the vehicle. The focus of the program will be in the ASE areas of Electrical/Electronic Systems, and Suspension and Steering, Brakes and Engine Performance.		
<b>Program Type:</b>	6	
<b>Size Requirements:</b>	5,000 SF Lab	
Lab Requirements:		
<b><u>FINISHES:</u></b>	<b>Spec. Ref #</b>	
<b>Flooring:</b>		
Sealed concrete	033000	
<b>Ceiling:</b>		
Painted, exposed structure	099100	
<b>Walls:</b>		
Painted concrete masonry units	042000/ 099100	
<b><u>LOOSE FURNISHINGS:</u></b>		
(6) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
<b><u>Electronic Safety and Security:</u></b>		
Life safety devices per code	283111	
<b><u>Miscellaneous:</u></b>		
Pencil sharpener (optional)		
<b><u>The following items are to be funded by the School District:</u></b>		
Car lifts		
Frame racks		
<b><u>Communications (cont'd):</u></b>		
Wireless access point (WAP) as determined by Design – refer to Note 2	272133	
Classroom technology center video port	271543, 274116, 274119, 275127	
<b><u>FEATURES<sup>1</sup>:</u></b>		
<b><u>Fixed Items:</u></b>		
24' of marker board, tack board, or tackable wall surface	101100	
24' of tall storage cabinets	123550	
Pencil sharpener support (optional)	062000	
(4) Paper towel dispensers	102813	
12'x14' motorized overhead sectional door to exterior	083613	
3'x7' hollow metal service door to exterior	081113	
Steel bollards at overhead door, both sides	055000	
<b><u>Fire Suppression:</u></b>		
Fire suppression system	211000	
<b><u>Plumbing:</u></b>		
2 washfountains (minimum)	224000	
2 utility sinks (minimum)	224000	
2 hose bibbs (minimum)	224000	
Safety shower/eyewash	224000	
8 compressed air connections	221500	
4 floor drains	224000	
1 trench drain	224000	
Plumbing connections	221116/221119/224000	
<b><u>HVAC:</u></b>		
Supply/return air system	Div. 23	
Independent temperature control	230923	
Vehicle exhaust system	Div. 23	
<b><u>Electrical:</u></b>		
High intensity lighting or fluorescent lighting	265100	
Illumination level: See Table 8600-5		
Multilevel switching	262726	
30 duplex receptacles (minimum)	262726	
Double duplex receptacle adjacent to each data and video port	262726	
(6) 220 volt receptacles	262726	
<b><u>Communications:</u></b>		
1 projector video port and video display device	271543/274119	
1 voice port and phone	271513/273123	
Wireless access point cable above ceiling	271513	
Clock	275313	
Central sound system	275123	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**T9 GROUND TRANSPORTATION  
T3 / 17.0302 AUTO TECHNOLOGY  
Engine Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 800 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Sealed concrete</p> <p>Ceiling: Suspended, acoustical Option: painted, exposed structure</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES</u><sup>1</sup>:</p> <p><u>Fixed Items:</u> Pair of doors</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supplemental heat as required Independent ventilation</p> <p><u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-5 Single level switching 4 duplex receptacles</p> <p><u>Communications:</u> Central sound system</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> N/A</p>
	<p>081113</p> <p>211000</p> <p>033000</p> <p>095113 099100</p> <p>042000/ 099100</p> <p>265100 262726 262726</p> <p>275123</p> <p>283111</p>

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**T9 GROUND TRANSPORTATION  
T3 / 17.0302 AUTO TECHNOLOGY  
Flammable Material Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 60 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: Sealed concrete</p> <p>Ceiling: Fire-rated gypsum drywall</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES</u><sup>1</sup>: <u>Fixed Items:</u> 3' of heavy duty adjustable steel shelving</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supplemental heat as required Independent ventilation</p> <p><u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-5 Single level switching 2 duplex receptacles</p> <p><u>Communications:</u> Central sound system</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<p><b><u>PROGRAM DESCRIPTION:</u></b> Classroom and laboratory experiences involving the layout, construction, and repair of residential and commercial structures. Included is instruction in the care and use of power tools, equipment, and materials used in the construction process; floor, wall, ceiling, and roof framing; the installation of insulation and roofing; and interior and exterior finish detail.</p> <p><b>Program Type:</b> 6 <b>Size Requirements:</b> 4,000 SF Lab Lab Requirements:</p> <p style="text-align: right;">Spec. <u>Ref #</u></p> <p><b><u>FINISHES:</u></b></p> <p>Flooring: Sealed concrete 033000</p> <p>Ceiling: Painted, exposed structure 099100</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b> (12) Workbenches with heavy-duty wooden tops (24) Stools or chairs Wastebasket</p> <p><b><u>Miscellaneous:</u></b> Pencil sharpener (optional) <b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b></p> <p><b><u>Electronic Safety and Security:</u></b> Life safety devices per code 283111</p> <p><b><u>Communications(cont'd):</u></b> <b><i>Wireless access point (WAP) as determined by Design – refer to Note 2 272133</i></b> <b><i>Classroom technology center video port 271543, 274116, 274119, 275127</i></b></p>	<p><b><u>FEATURES<sup>1</sup>:</u></b> <b><u>Fixed Items:</u></b></p> <p>24' of marker board, tack board, or tackable wall surface 101100 24' of tall storage cabinets 123550 Pencil sharpener support (optional) 062000 (3) Paper towel dispensers 102813 12'x14' motorized overhead sectional door to exterior 083613 3'x7' hollow metal service door to exterior 081113 Steel bollards at overhead door, both sides 055000 (2) Lumber storage racks 061000</p> <p><b><u>Fire Suppression:</u></b> Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b> 1 washfountain (minimum) 224000 2 utility sinks (minimum) 224000 2 hose bibbs (minimum) 224000 Safety shower/eyewash 224000 6 compressed air connections 221500 2 floor drains 224000 1 trench drain 224000 Plumbing connections 221116/221119/224000</p> <p><b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923 Dust collection system 233513</p> <p><b><u>Electrical:</u></b> High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 30 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726 Room safety push-button 262726</p> <p><b><u>Communications:</u></b> 1 <b>projector</b> video port and video display device 271543/274119 1 voice port and phone 271513/273123 <b><i>Wireless access point cable above ceiling</i></b> 271513 Clock 275313 Central sound system 275123</p>
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**NOTES:**  
1. Finishes/Features: Refer to Chapter 9 for specification references.  
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

**D3 / 17.1001 CARPENTRY  
Finishing Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 500 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>  <b>Flooring:</b>              Sealed concrete</p> <p><b>Ceiling:</b>              Suspended, acoustical</p> <p><b>Walls:</b>              Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>              (2) Work tables</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall only minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>              16' of pegboard              Pair of doors</p> <p><u>Fire Suppression:</u>              Fire suppression system</p> <p><u>Plumbing:</u>              N/A</p> <p><u>HVAC:</u>              Supplemental heat as required              Independent ventilation</p> <p><u>Electrical:</u>              Fluorescent lighting                  Illumination level: See Table 8600-5              Single level switching              4 duplex receptacles</p> <p><u>Communications:</u>              Central sound system              Clock</p> <p><u>Electronic Safety and Security:</u>              Life safety devices per code</p> <p><u>Miscellaneous:</u>              N/A</p>	<p>060565 081113</p> <p>211000</p> <p>033000</p> <p>095113</p> <p>042000/ 099100</p> <p>265100 262726 262726</p> <p>275123 275313</p> <p>283111</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**D3 / 17.1001 CARPENTRY**  
**Material Storage**

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 800 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>  Flooring:  Sealed concrete</p> <p>Ceiling:  Suspended, acoustical</p> <p>Walls:  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>  N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>  N/A</p> <p><u>Fire Suppression:</u>  Fire suppression system 211000</p> <p><u>Plumbing:</u>  N/A</p> <p><u>HVAC:</u>  Supplemental heat as required Div. 23</p> <p><u>Electrical:</u>  Fluorescent lighting 265100  Illumination level: See Table 8600-5  Single level switching 262726  4 duplex receptacles 262726</p> <p><u>Communications:</u>  Central sound system 275123</p> <p><u>Electronic Safety and Security:</u>  Life safety devices per code 283111</p> <p><u>Miscellaneous:</u>  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**CONSTRUCTION (2 clusters) D4 / 17.1805 Design/Build - D5 / 17.1806 Management  
DD - STRUCTURAL SYSTEMS; DE - MECHANICAL, ELECTRICAL AND PLUMBING  
DF - CONSTRUCTION DESIGN AND MANAGEMENT**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P6-1**

	<u>Spec. Ref.#</u>
<b>PROGRAM DESCRIPTION:</b>	
<u>C-D/B:</u> Utilizes industry standards and a math, science, ELA, and technology framework to introduce concepts of designing, planning, managing, building and maintaining the built environment.	
<u>C-M:</u> Classroom and laboratory experiences combining advanced academics and the skills and knowledge essential to the construction industry. Focus is on supervision, planning, and management of the construction process. The program will follow the state TCP and culminate in an associate degree.	
<b>Program Type:</b> 6	
<b>Size Requirements:</b> 3,000 SF Lab	
<b>Lab Requirements:</b>	
	<u>Spec. Ref #</u>
<u>FINISHES:</u>	
Flooring:	
Sealed concrete	033000
Ceiling:	
Painted, exposed structure	099100
Walls:	
Painted concrete masonry units	042000/ 099100
<u>LOOSE FURNISHINGS:</u>	
(12) Workbenches with heavy-duty metal tops	
(24) Stools or chairs	
(2) Welding tables	
Wastebasket	
<u>Electronic Safety and Security:</u>	
Life safety devices per code	283111
<u>Miscellaneous:</u>	
Pencil sharpener (optional)	
Duplex receptacle with dedicated circuit for wireless device	
<u>Communications (cont'd):</u>	
Wireless access point (WAP) as determined by Design – refer to Note 2	272133
Classroom technology center video port	271543, 274116, 274119, 275127
<u>FEATURES<sup>1</sup>:</u>	
<u>Fixed Items:</u>	
24' of marker board, tack board, or tackable wall surface	101100
24' of tall storage cabinets	123550
Pencil sharpener support (optional)	062000
(3) Paper towel dispensers	102813
12'x14' motorized overhead sectional door to exterior	083613
3'x7' hollow metal service door to exterior	081113
Steel bollards at overhead door, both sides	055000
<u>Fire Suppression:</u>	
Fire suppression system	211000
<u>Plumbing:</u>	
1 washfountain (minimum)	224000
2 utility sinks (minimum)	224000
2 hose bibbs (minimum)	224000
Safety shower/eyewash	224000
6 compressed air connections	221500
2 floor drains	224000
1 trench drain	224000
Plumbing connections	221116/221119/224000
<u>HVAC:</u>	
Supply/return air system	Div. 23
Independent temperature control	230923
Welding hood and exhaust	233515
<u>Electrical:</u>	
High intensity lighting or fluorescent lighting	265100
Illumination level: See Table 8600-5	
Multilevel switching	262726
30 duplex receptacles (minimum)	262726
Double duplex receptacle adjacent to each data and video port	262726
480v 3-phase service	262726
<u>Communications:</u>	
1 projector video port and video display Device	271543/274119
1 voice port and phone	271513/273123
Wireless access point cable above ceiling	271513
Clock	275313
Central sound system	275123

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. This lab may be air-conditioned.
3. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**CONSTRUCTION (2clusters) D4 / 17.1805 Design/Build ▪ D5 / 17.1806 Management  
DD - STRUCTURAL SYSTEMS; DE - MECHANICAL, ELECTRICAL AND PLUMBING  
DF - CONSTRUCTION DESIGN AND MANAGEMENT**

**CAD Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 400 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: ET, rubber, sheet vinyl, or linoleum</p> <p>Base: Resilient</p> <p>Ceiling: Suspended acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> (10) 2-person tables (20) Student chairs (1) Teacher station &amp; chair Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall only minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u> <u>Fixed Items:</u> 6' of marker board 101100 8' of tall storage cabinets 123550 Projection screen, 6'x8' 115213</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><u>Electrical:</u> Fluorescent lighting <b>computer aided</b> lenses: 265100 Illumination level: See Table 8600-5 Single level switching 262726 4 duplex receptacles 262726 Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u> 1 projector video port 271543 1 data port near teacher workstation 271513 Wireless access point cable above ceiling 271513 Central sound system 275123 Ultra-short throw interactive projector 274119 Wireless access point (WAP) as determined by Design – refer to Note 2 272133 Classroom technology center video port 271543, 274116, 274119, 275127</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> Duplex receptacle with dedicated circuit for wireless devices</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

<b>PROGRAM DESCRIPTION:</b>		<b>FEATURES<sup>1</sup>:</b>		Spec.
		<u>Fixed Items:</u>		<u>Ref.#</u>
Combined with the first course in the pathway and utilizing business and industry technical standards and within a math, science, ELA, technology framework. Introduces concepts of engineering related to mechanical, electrical, and industrial engineering and leads to post-secondary education.		24' of marker board, tack board, or tackable wall surface		101100
<b>Program Type:</b> 6		24' of tall storage cabinets		123550
<b>Size Requirements:</b> 1,500 SF Lab		Pencil sharpener support (optional)		062000
<b>Lab Requirements:</b>		(3) Paper towel dispensers		102813
		12'x14' motorized overhead sectional door to exterior		083613
		3'x7' hollow metal service door to exterior		081113
		Steel bollards at overhead door, both sides		055000
<b>FINISHES:</b>		<u>Fire Suppression:</u>		
		Fire suppression system		211000
<u>Flooring:</u>		<u>Plumbing:</u>		
Sealed concrete		1 washfountain (minimum)		224000
		2 utility sinks (minimum)		224000
<b>Ceiling:</b>		2 hose bibbs (minimum)		224000
Painted, exposed structure		Safety shower/eyewash		224000
		6 compressed air connections		221500
<b>Walls:</b>		2 floor drains		224000
Painted concrete masonry units		1 trench drain		224000
		Plumbing connections		221116/221119/224000
<b>LOOSE FURNISHINGS:</b>		<u>HVAC:</u>		
(12) Workbenches with heavy-duty metal tops		Supply/return air system		Div. 23
(24) Stools or chairs		Independent temperature control		230923
(4) Welding tables		Welding hood and exhaust		233515
Wastebasket		<u>Electrical:</u>		
<b>Electronic Safety and Security:</b>		High intensity lighting or fluorescent lighting		265100
Life safety devices per code		Illumination level: See Table 8600-5		
		Multilevel switching		262726
<b>Miscellaneous:</b>		30 duplex receptacles (minimum)		262726
Pencil sharpener (optional)		Double duplex receptacle adjacent to each data and video port		262726
Duplex receptacle with dedicated circuit for wireless devices		(6) 220 volt receptacles		262726
<b>Communications (cont'd):</b>		<u>Communications:</u>		
Wireless access point (WAP) as determined by Design – refer to Note 2		1 projector video port and video display Device		271543/274119
		1 voice port and phone		271513/273123
		Wireless access point cable above ceiling		271513
Classroom technology center video port		Clock		275313
271543, 274116, 274119, 275127		Central sound system		275123

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. This program has the option of being located in high bay or low bay (Type 3) space with associated features adjusted for the needs of the space, building type, and curriculum with OSFC approval.
3. This lab may be air-conditioned.
4. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**F3 / 17.1810 ENGINEERING TECHNOLOGY  
CAD Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 400 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u> Flooring: ET, rubber, sheet vinyl, or linoleum</p> <p>Base: Resilient</p> <p>Ceiling: Suspended acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> (10) 2-person tables (20) Student chairs (1) Teacher station &amp; chair Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall only minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul> <p><u>Miscellaneous:</u> Duplex receptacle with dedicated circuit for wireless devices</p>	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES</u><sup>1</sup>:</p> <p><u>Fixed Items:</u> 6' of marker board 101100 8' of tall storage cabinets 123550 Projection screen, 6'x8' 115213</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><u>Electrical:</u> Fluorescent lighting, <b>computer aided</b> lenses: 265100 Illumination level: See Table 8600-5 Single level switching 262726 4 duplex receptacles 262726 Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u> 1 data port near teacher workstation 271513 Wireless access point cable above ceiling 271513 Central sound system 275123 Ultra-short throw interactive projector 274119 Wireless access point (WAP) as determined by Design – refer to Note 2 272133 Classroom technology center video port 271543, 274116, 274119, 275127</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

<b><u>PROGRAM DESCRIPTION:</u></b>	Applies principles of biology, chemistry, and physics to the research and development, production, processing, and distribution of food products meeting quality assurance standards in a system that is safe and secure.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	6	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	2,000 SF Lab	24' of marker board, tack board, or tackable wall surface	101100
Lab Requirements:		Pencil sharpener support (optional)	062000
		(3) Paper towel dispensers	102813
		12'x14' motorized overhead	
		sectional door to exterior	083613
		3'x7' hollow metal service door	
		to exterior	081113
		Steel bollards at overhead door,	
		both sides	055000
		Overhead hoist system between lab,	
		freezer, and cooler	412223
<b><u>FINISHES:</u></b>	Spec.	<b><u>Fire Suppression:</u></b>	
Flooring:	<b><u>Ref #</u></b>	Fire suppression system	211000
Sealed concrete	033000	<b><u>Plumbing:</u></b>	
Option: Epoxy, resinous flooring	096723	1 washfountain (minimum)	224000
		2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
		Safety shower/eyewash	224000
		2 floor drains	224000
		1 trench drain	224000
		Plumbing connections	
		221116/221119/224000	
		<b><u>HVAC:</u></b>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		<b><u>Electrical:</u></b>	
		High intensity lighting or	265100
		fluorescent lighting	
		Illumination level: See Table 8600-5	
		Multilevel switching	262726
		20 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to	
		each data and video port	262726
		(2) 220 volt receptacles	262726
		<b><u>Communications:</u></b>	
		1 <b>projector</b> video port and video display	
		device	271543/274119
		1 voice port and phone	271513/273123
		<b><i>Wireless access point cable above ceiling</i></b>	271513
		Clock	275313
		Central sound system	275123
<b><u>NOTES:</u></b>			
	1. Finishes/Features: Refer to Chapter 9 for specification references.		
	2. <b><i>Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.</i></b>		

**A4 / 01.1001 FOOD SCIENCE AND TECHNOLOGY**

**Freezer**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 400 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  Quarry tile</p> <p>Ceiling:                  Quarry tile base</p> <p>Walls:                  Manufactured insulated panel</p> <p><u>LOOSE FURNISHINGS:</u>                  N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Ventilation for refrigeration machinery</li> <li>▪ Cleanable building surfaces</li> <li>▪ Floor to be flush with adjacent kitchen floor</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  Overhead hoist system</p> <p><u>Fire Suppression:</u>                  Fire suppression system</p> <p><u>Plumbing:</u>                  N/A</p> <p><u>HVAC:</u>                  Exhaust air system for compressors Div. 23</p> <p><u>Electrical:</u>                  Incandescent lighting                  Illumination level: See Table 8600-5                  Single level switching                  Electrical connections to freezer                  Refrigeration equipment</p> <p><u>Communications:</u>                  N/A</p> <p><u>Electronic Safety and Security:</u>                  N/A</p> <p><u>Miscellaneous:</u>                  N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**A4 / 01.1001 FOOD SCIENCE AND TECHNOLOGY**

**Retail**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 6		<b>FEATURES<sup>1</sup>:</b>	Spec.
<b>Size Requirements:</b> 400 SF		<u>Fixed Items:</u>	<u>Ref.#</u>
Requirements:		12' of solid surface counter with storage below	062000
		Cashier's station	123550
		Paper towel dispenser	102813
	Spec.	12'x14' motorized overhead sectional door to exterior	083613
<u>FINISHES:</u>	<u>Ref #</u>	3'x7' hollow metal service door to exterior	081113
Flooring:		Steel bollards at overhead door, both sides	055000
ET, sheet vinyl, or linoleum	096500		
	096516		
Base:		<u>Fire Suppression:</u>	
Resilient	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	1 utility sink	224000
Walls:		Plumbing connections	221116/221119/224000
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
Wastebasket		Supply/return air system	Div. 23
		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Single level switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data port	262726
		<u>Communications:</u>	
		1 data ports	271513
		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<b>PROGRAM DESCRIPTION:</b>		<b>Spec. Ref.#</b>
Applies principles of plant anatomy, nutrition, reproduction, genetics, health and artistic design to production, management, processing, and marketing of ornamental plants, landscapes, and floral designs. Communications, business principles and leadership skill development are essential to the program.		
<b>Program Type:</b>	6	
<b>Size Requirements:</b>	2,000 SF Lab	
<b>Lab Requirements:</b>		
<b>FINISHES:</b>	<b>Spec. Ref #</b>	
<b>Flooring:</b>		
Sealed concrete	033000	
<b>Ceiling:</b>		
Painted, exposed structure	099100	
<b>Walls:</b>		
Painted concrete masonry units	042000/ 099100	
<b>LOOSE FURNISHINGS:</b>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
<b>SITE FEATURES:</b>		
Greenhouse – 3,000 SF	133413	
½ earth flooring, ½ concrete flooring (w/drains)		
Minimum of one 8'x10' overhead door		
Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations		
Minimum of 4 hose bibs		
Fire suppression system if required		
<b>Electronic Safety and Security:</b>		
Life safety devices per code	283111	
<b>Miscellaneous:</b>		
Pencil sharpener (optional)		
<b>Duplex receptacle with dedicated circuit for wireless devices</b>		
<b>FEATURES<sup>1</sup>:</b>		
<b>Fixed Items:</b>		
24' of marker board, tack board, or tackable wall surface		101100
24' of tall storage cabinets		123550
Pencil sharpener support (optional)		062000
(3) Paper towel dispensers		102813
12'x14' motorized overhead sectional door to exterior		083613
3'x7' hollow metal service door to exterior		081113
Steel bollards at overhead door, both sides		055000
<b>Fire Suppression:</b>		
Fire suppression system		211000
<b>Plumbing:</b>		
1 washfountain (minimum)		224000
2 utility sinks (minimum)		224000
2 hose bibbs (minimum)		224000
Safety shower/eyewash		224000
2 floor drains		224000
1 trench drain		224000
Plumbing connections		221116/221119/224000
<b>HVAC:</b>		
Supply/return air system		Div. 23
Independent temperature control		230923
<b>Electrical:</b>		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-5		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
<b>Communications:</b>		
1 <b>projector</b> video port and video display device		271543/274119
1 voice port and phone		271513/273123
<b>Wireless access point cable above ceiling</b>		271523
Clock		275313
Central sound system		275123
<b>Wireless access point (WAP) as determined by Design – refer to Note 2</b>		272133
<b>Classroom technology center video port</b>		271543, 274116, 274119, 275127

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**

**A5 / 01.0601 HORTICULTURE  
Retail**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	6	
<b>Size Requirements:</b>	400 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended, acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 40		
▪ Ceiling minimum CAC 35		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES<sup>1</sup>:</u>
		<u>Fixed Items:</u>
		10' of base cabinets 123550
		4' of cashier's station 123550
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		1 utility sink 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-5
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 data port 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**T7 / 17.1200 MEDIUM/HEAVY TRUCK TECHNICIAN**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**CT-P6-1**

<p><b><u>PROGRAM DESCRIPTION:</u></b>                  This program focuses on the service and repair of trucks. Instruction includes the diagnosis, maintenance, and repair of diesel engines operational systems. ASE areas of concentration are: Diesel Engines, Suspension and Steering, Brakes, Electrical/Electronic Systems and Preventative Maintenance Inspection.</p> <p><b>Program Type:</b> 6  <b>Size Requirements:</b> 6,000 SF Lab  <b>Lab Requirements:</b></p> <p><b><u>FINISHES:</u></b></p> <p>Flooring:                  Sealed concrete 033000</p> <p>Ceiling:                  Painted, exposed structure 099100</p> <p>Walls:                  Painted concrete masonry units 042000/                  099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b>                  (8) Workbenches with heavy-duty metal tops                  (24) Stools or chairs                  Wastebasket</p> <p><b><u>Miscellaneous:</u></b>                  Pencil sharpener (optional)  <b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b></p> <p><u>The following items are to be funded by the School District:</u>                  Truck lifts                  Frame rack</p> <p><b><u>Electronic Safety and Security:</u></b>                  Life safety devices per code 283111</p> <p><b><u>Communications(cont'd):</u></b>  <b><i>Wireless access point (WAP) as determined by Design – refer to Note 2 272133</i></b>  <b><i>Classroom technology center video port 271543, 274116, 274119, 275127</i></b></p>	<p align="right">Spec. Ref.#</p> <p><b><u>FEATURES<sup>1</sup>:</u></b>  <b><u>Fixed Items:</u></b>                  24' of marker board, tack board, or tackable wall surface 101100                  24' of tall storage cabinets 123550                  Pencil sharpener support (optional) 062000                  (4) Paper towel dispensers 102813                  12'x14' motorized overhead sectional door to exterior 083613                  3'x7' hollow metal service door to exterior 081113                  Steel bollards at overhead door, both sides 055000</p> <p><b><u>Fire Suppression:</u></b>                  Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b>                  2 washfountains (minimum) 224000                  2 utility sinks (minimum) 224000                  2 hose bibbs (minimum) 224000                  Safety shower/eyewash 224000                  8 compressed air connections 221500                  4 floor drains 224000                  1 trench drain 224000                  Plumbing connections 221116/221119/224000</p> <p><b><u>HVAC:</u></b>                  Supply/return air system Div. 23                  Independent temperature control 230923                  Vehicle exhaust system Div. 23</p> <p><b><u>Electrical:</u></b>                  High intensity lighting or fluorescent lighting 265100                  Illumination level: See Table 8600-5                  Multilevel switching 262726                  30 duplex receptacles (minimum) 262726                  Double duplex receptacle adjacent to each data and video port 262726                  (6) 220 volt receptacles 262726</p> <p><b><u>Communications:</u></b>                  1 <b>projector</b> video port and video display device 271543/274119                  1 voice port and phone 271513/273123  <b><i>Wireless access point cable above ceiling</i></b> 271513                  Clock 275313                  Central sound system 275123</p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***



**Flammable Material Storage**

<b>Program Type:</b>	6	<u>FEATURES<sup>1</sup>:</u>	Spec.
<b>Size Requirements:</b>	60 SF	<u>Fixed Items:</u>	<u>Ref.#</u>
<b>Requirements:</b>	Spec.	3' of heavy duty adjustable steel shelving	105613
<u>FINISHES:</u>	<u>Ref #</u>	<u>Fire Suppression:</u>	211000
Flooring:	033000	Fire suppression system	
Sealed concrete		<u>Plumbing:</u>	
Ceiling:	092113	N/A	
Fire-rated gypsum drywall		<u>HVAC:</u>	
Walls:	042000/ 099100	Supplemental heat as required Independent ventilation	Div. 23 Div. 23
Painted concrete masonry units		<u>Electrical:</u>	
<u>LOOSE FURNISHINGS:</u>		Fluorescent lighting	265100
N/A		Illumination level: See Table 8600-5	
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		Single level switching	262726
<ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>		2 duplex receptacles	262726
		<u>Communications:</u>	
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**R5 / 17.2302 PRECISION MACHINING  
R7 MANUFACTURING OCCUPATIONS  
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b><u>PROGRAM DESCRIPTION:</u></b> Utilizing business and industry, math, science and technology standards, introduces concepts related to set-up and operation; and the control of various metal working equipment.</p> <p><b>Program Type:</b> 6 <b>Size Requirements:</b> 3,500 SF Lab <b>Lab Requirements:</b></p> <p style="text-align: right;">Spec. <u>Ref #</u></p> <p><b><u>FINISHES:</u></b></p> <p>Flooring: Sealed concrete 033000</p> <p>Ceiling: Painted, exposed structure 099100</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b> (6) Workbenches with heavy-duty metal tops (24) Stools or chairs Wastebasket</p> <p><b><u>Miscellaneous:</u></b> Pencil sharpener (optional) Duplex receptacle with dedicated circuit for wireless devices</p> <p><b><u>Electronic Safety and Security:</u></b> Life safety devices per code 283111</p> <p><b><u>Communications (cont'd):</u></b> Central sound system 275123 Wireless access point (WAP) as determined by Design – refer to Note 2 272133 Classroom technology center video port 271543, 274116, 274119, 275127</p>	<p><b><u>FEATURES<sup>1</sup>:</u></b> <b><u>Fixed Items:</u></b> 24' of marker board, tack board, or tackable wall surface 101100 24' of tall storage cabinets 123550 Pencil sharpener support (optional) 062000 (4) Paper towel dispensers 102813 12'x14' motorized overhead sectional door to exterior 083613 3'x7' hollow metal service door to exterior 081113 Steel bollards at overhead door, both sides 055000</p> <p><b><u>Fire Suppression:</u></b> Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b> 2 washfountains (minimum) 224000 2 utility sinks (minimum) 224000 2 hose bibbs (minimum) 224000 Safety shower/eyewash 224000 20 compressed air connections 221500 Flat floor – no floor drains 1 trench drain 224000 Plumbing connections 221116/221119/224000</p> <p><b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><b><u>Electrical:</u></b> High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 30 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726 220v 3-phase service 262726 480v 3-phase service 262726 Room safety push-button 262726</p> <p><b><u>Communications:</u></b> 1 projector video port and video display device 271543/274119 1 voice port and phone 271513/273123 Wireless access point cable above ceiling 271513 Clock 275313</p>
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**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. This lab may be air-conditioned.
3. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**R5 / 17.2302 PRECISION MACHINING  
R7 MANUFACTURING OPERATIONS  
CNC Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 6	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<b>Size Requirements:</b> 900 SF		<u>Fixed Items:</u>	
		20' of plastic laminate counter	123550
		20' of adjustable shelving	062000
<b>Requirements:</b>		<u>Fire Suppression:</u>	
	Spec. Ref #	Fire suppression system	211000
<u>FINISHES:</u>		<u>Plumbing:</u>	
Flooring:		N/A	
Sealed concrete	033000		
Ceiling:		<u>HVAC:</u>	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
Option: painted, exposed structure	099100	Independent ventilation (see note 2)	Div. 23
Walls:		<u>Electrical:</u>	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Single level switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data port	262726
		220v service	262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>	
(4) Chairs		Central sound system	275123
		6 data ports	271513
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>	
<ul style="list-style-type: none"> <li>▪ Wall only minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Room may be cooled from central HVAC system, but all air must be exhausted and not returned.



**DC / 17.3601 WOOD PRODUCT TECHNOLOGIES  
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b><u>PROGRAM DESCRIPTION:</u></b>	Utilizing business and industry, math, science, and technology standards, introduces concepts of wood product materials and technologies; design and production of window frames, molding, trims and panels; and wood crafting skills including the design and manufacture of wood products such as furniture, moldings, trim, fixtures, and cabinetry.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	6	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	3,000 SF Lab	24' of marker board, tack board, or tackable wall surface 101100 24' of tall storage cabinets 123550 Pencil sharpener support (optional) 062000 (3) Paper towel dispensers 102813 12'x14' motorized overhead sectional door to exterior 083613 3'x7' hollow metal service door to exterior 081113 Steel bollards at overhead door, both sides 055000	
<b>Lab Requirements:</b>		<b><u>Fire Suppression:</u></b>	
<b><u>FINISHES:</u></b>	Spec.	Fire suppression system 211000	
Flooring:	<b><u>Ref #</u></b>	<b><u>Plumbing:</u></b>	
Sealed concrete 033000		1 washfountain (minimum) 224000 2 utility sinks (minimum) 224000 2 hose bibbs (minimum) 224000 Safety shower/eyewash 224000 2 floor drains 224000 1 trench drain 224000 Plumbing connections 221116/221119/224000	
Ceiling:		<b><u>HVAC:</u></b>	
Painted, exposed structure 099100		Supply/return air system Div. 23 Independent temperature control 230923 Dust collection system 233513	
Walls:		<b><u>Electrical:</u></b>	
Painted concrete masonry units 042000/ 099100		High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 30 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726	
<b><u>LOOSE FURNISHINGS:</u></b>		<b><u>Communications:</u></b>	
(12) Workbenches with heavy-duty wooden tops		1 <b>projector</b> video port and video display device 271543/274119	
(24) Stools or chairs		1 voice port and phone 271513/273123	
Wastebasket		<b><i>Wireless access point cable above ceiling</i></b>	
<b><u>Electronic Safety and Security:</u></b>			
Life safety devices per code 283111		Clock 275313	
<b><u>Miscellaneous:</u></b>		Central sound system 275123	
Pencil sharpener (optional)		Room safety push-button 262726	
<b><i>Duplex receptacle with dedicated circuit for wireless devices</i></b>			
<b><u>Communications (cont'd):</u></b>			
<b><i>Wireless access point (WAP) as determined by Design – refer to Note 2</i></b> 272133			
<b><i>Classroom technology center video port</i></b> 271543, 274116, 274119, 275127			

**NOTES:**

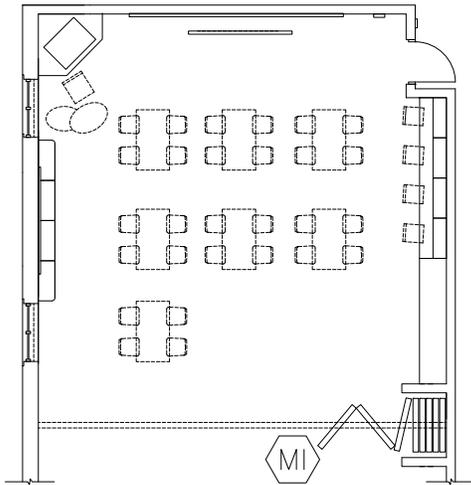
1. Finishes/Features: Refer to Chapter 9 for specification references.
2. ***Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.***

<p><b>Program Type:</b> 6</p> <p><b>Size Requirements:</b> 500 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>                  Flooring:                  Sealed concrete</p> <p>Ceiling:                  Suspended, acoustical                  Option: painted, exposed structure</p> <p>Walls:                  Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>                  (2) Work tables</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall only minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>                  16' of pegboard                  Pair of doors</p> <p><u>Fire Suppression:</u>                  Fire suppression system</p> <p><u>Plumbing:</u>                  N/A</p> <p><u>HVAC:</u>                  Supplemental heat as required                  Independent ventilation</p> <p><u>Electrical:</u>                  Fluorescent lighting                  Illumination level: See Table 8600-5                  Single level switching                  4 duplex receptacles</p> <p><u>Communications:</u>                  Central sound system                  Clock</p> <p><u>Electronic Safety and Security:</u>                  Life safety devices per code</p> <p><u>Miscellaneous:</u>                  N/A</p>
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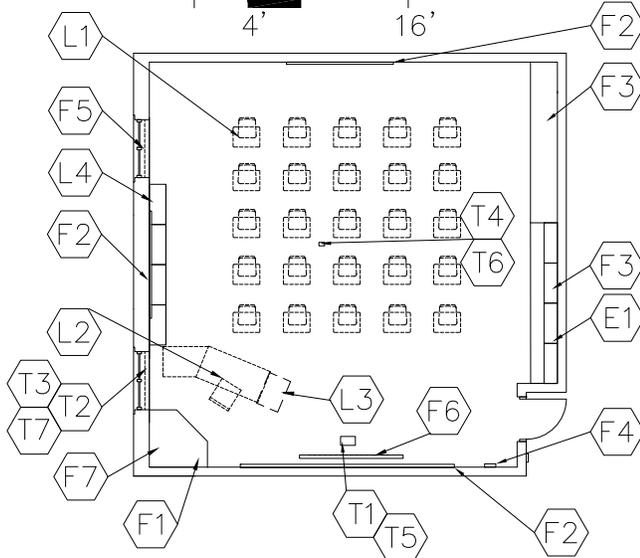
NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.





CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

**CAPACITY:** 25 students  
**SIZE:** 900 SF

**PROGRAM ACTIVITIES:**

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

**SPATIAL RELATIONSHIPS:**

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.  
Recommended: Daylighting design with glazing area determined by design solution.
- Environmental sound control -  
wall only minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

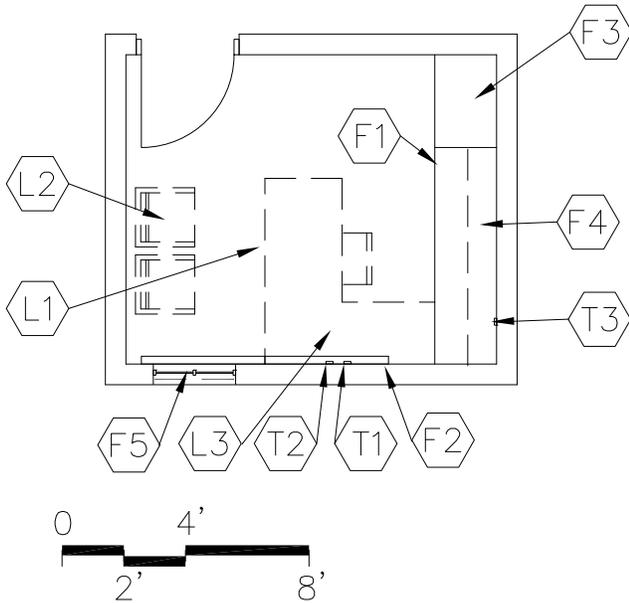
**RELATED CLASSROOM  
CT-P6-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	<b>F1</b> Tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500 096813	<b>F2</b> 20'-32' combination marker board, tack board and tackable wall surface	101100
<u>Base:</u>		<b>F3</b> 18'-24' combination base and wall cabinets	123550
Resilient base	096500	<b>F4</b> Pencil sharpener support (optional)	062000
<u>Ceiling:</u>		<b>F5</b> Windows with integral blinds	085113
Suspended, acoustical	095113	<b>F6</b> Projection screen (optional)	115213
<u>Walls:</u>		<b>F7</b> Technology support casework	123550
Painted concrete masonry units	042000/099100	<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Student desks and chairs		Supply/return air system	Div. 23
L2 Teacher desk or workstation/computer support and chair		Independent temperature control	230923
L3 File cabinet		<u>Electrical:</u>	
L4 9' of low bookcases (fixed or mobile) Wastebasket		Fluorescent lighting:	265100
		Illumination level: See Table 8600-5	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 <b>projector</b> video port	271543
		T2 1 voice port and phone	271513/273123
		T3 1 data port near teacher workstation	271513
		T4 <b>Wireless access point cable above ceiling</b>	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
<u>Miscellaneous:</u>		T5 <b>Ultra-short throw interactive</b> projector	274119
Pencil sharpener ( <i>optional</i> )		T6 <b>Wireless access point (WAP) as determined by Design – refer to Note 4</b>	272133
M1 Operable partitions between classrooms are optional	02226	T7 <b>Classroom technology center video port</b>	271543, 274116, 274119, 275127
<b>E1 Duplex receptacle with dedicated circuit for wireless devices</b>		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.
4. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**



**PROGRAM ACTIVITIES:**

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

**SPATIAL RELATIONSHIPS:**

- Near related lab
- Direct access to school circulation areas

**ENVIRONMENTAL CONSIDERATIONS:**

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

**NOTES:**

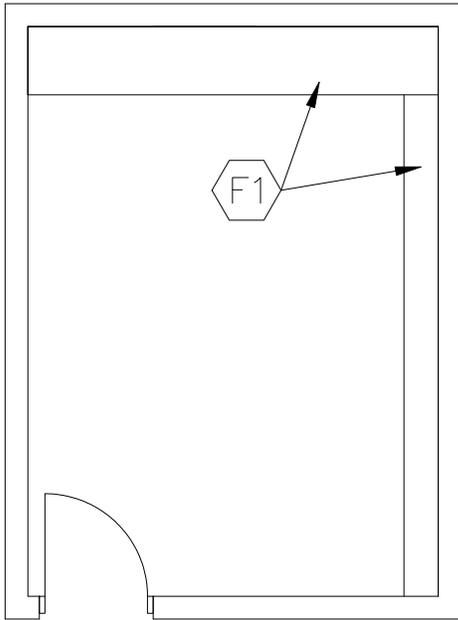
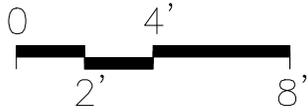
1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P6-3**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271513
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.



**PROGRAM ACTIVITIES:**

- Space for storage of lab equipment

**SPATIAL RELATIONSHIPS:**

- Near related lab

**ENVIRONMENTAL CONSIDERATIONS:**

N/A

CAPACITY:  
SIZE:

N/A  
200 SF

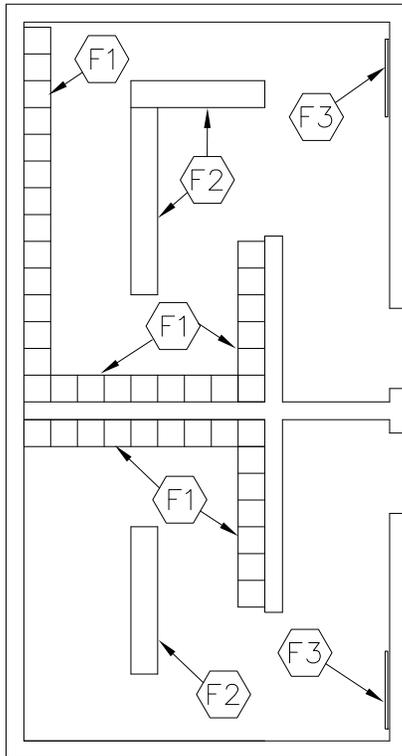
NOTES:

**STORAGE AREA  
CT-P6-4**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



50 total lockers

CAPACITY: N/A  
 SIZE: 9 SF per student (see Note 2)

**PROGRAM ACTIVITIES:**

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
 Wall minimum STC 40  
 Ceiling minimum CAC 35, NRC 0.70

**NOTES:**

1. Large and small changing areas are interchangeable for either males or females.  
 Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times 30.

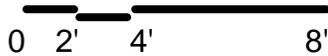
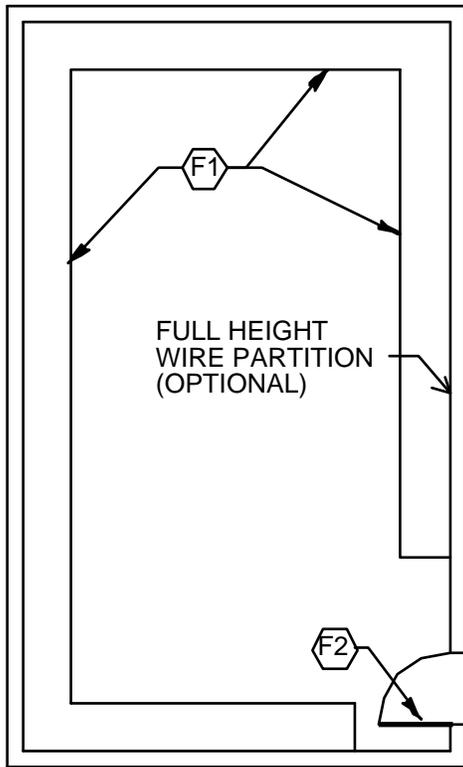
**CHANGING ROOM  
CT-P6-5**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
<u>Flooring:</u>		<u>Fixed Items<sup>1</sup>:</u>	
Polished concrete finishing, or	033510	F1 Student lockers	105113
colored concrete finishing	033519	F2 Locker benches	062000
Optional: linoleum or rubber	096500	F3 24" x 60" mirror	102813
	096516		
		<u>Fire Suppression:</u>	
<u>Base:</u>		Fire suppression system	211000
Resilient base	096500		
		<u>Plumbing:</u>	
<u>Ceiling:</u>		N/A	
Suspended, acoustical	095113		
with high impact hold down clips		<u>HVAC:</u>	
		Supply/Return air system	Div. 23
<u>Walls:</u>		Exhaust air system	Div. 23
Painted concrete masonry units	042000 / 099100	Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-6	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**PROGRAM ACTIVITIES:**

- Storage of program related tools and instruments.
- Storage of students' tools.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

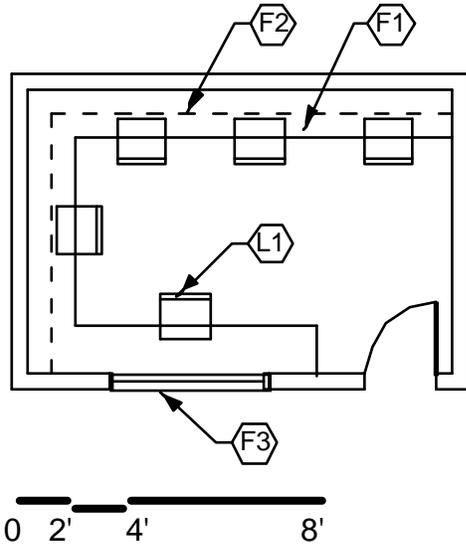
- Sanitary and durable finishes

CAPACITY:  
SIZE:  
ANCILLARY SPACES:

N/A  
550 SF

NOTES:





PROGRAM ACTIVITIES:

- Individual computer research.
- Reference program specific manuals.
- Small group meetings.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Sanitary and durable finishes
- Environmental sound control
  - Wall **only** minimum STC **45**
  - Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
200 SF

NOTES:

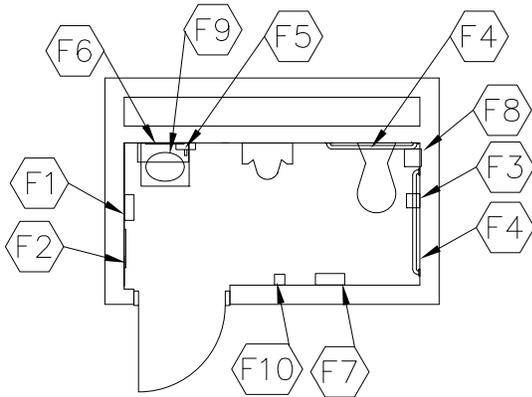
**REFERENCE ROOM  
CT-P6-7**

**CHAPTER 6: CAREER-TECHNICAL SCHOOL**

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
Flooring:		<u>Fixed Items:</u>	
<b>Sealed</b> concrete	033000	F1 34' of plastic lam. counter	062000
Optional: rubber	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113/ 088000
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Supply/return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
L3 Student chairs		Single level switching	262726
Wastebasket		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		2 Duplex receptacles	262726
		Duplex receptacle adjacent to	
		Each data and video port	262726
		<u>Communications:</u>	
		T1 6 data ports	271513
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**PROGRAM ACTIVITIES:**

- Personal and health needs for the program
- Specific users
- Changing of clothes and/or uniforms.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
 Wall minimum STC 48  
 Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
68 SF

NOTES:

**TOILET ROOM  
CT-P6-8**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. <u>Ref.#</u>
<b><u>FINISHES<sup>1</sup>:</u></b>	
Flooring:	
<b>Sealed concrete</b>	<b>093000</b>
Optional: Rubber	096500
Base:	
Resilient base	096500
Ceiling:	
Suspended, acoustical	095113
Walls:	
Painted concrete masonry units	042000 / 099100
 <b><u>LOOSE FURNISHINGS</u></b>	
Wastebaskets	

	Spec. <u>Ref.#</u>
<b><u>FEATURES<sup>1</sup>:</u></b>	
<b><u>Fixed Items:</u></b>	
F1 Towel dispenser	102813
F2 24" x 60" mirror	102813
F3 Toilet tissue holder	102813
F4 36" and 42" grab bars	102813
F5 Soap dispenser	102813
F6 16" x 24" mirror	102813
F7 Sanitary product dispenser	102813
F8 Sanitary product receptacle	102813
F9 Stainless steel shelf (optional)	102813
F10 Coat hook	102813
 <b><u>Fire Suppression:</u></b>	
Fire suppression system	211000
 <b><u>Plumbing:</u></b>	
Plumbing connections	221116/221119/224000
 <b><u>HVAC:</u></b>	
Supply/return air system	Div. 23
Exhaust air system	Div. 23
Supplemental heat as required	Div. 23
Individual temperature control	230923
 <b><u>Electrical:</u></b>	
Single level switching	262726
Fluorescent lighting	265100
Illumination level: See Table 8600-5	
2 Duplex receptacles	262726
Means of egress lighting per code	265100
 <b><u>Communications:</u></b>	
Clock	275313
 <b><u>Electronic Safety and Security:</u></b>	
Life safety devices per code	283111
 <b><u>Miscellaneous:</u></b>	
N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

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**Program Type 7**

Description: Large to very large-sized lab space with enhanced support space.

Lab space to be “high-bay” (18’ min. clearance) with exposed building structure.

Lab to utilize standard construction with the following exception – lab floor slab to be 8” thick.

Support space to be finished with sealed concrete or vinyl composition tile, paint, and suspended acoustical ceiling.

Related classroom, office, changing room, reference room, and toilet room may be air-conditioned. The high bay lab is NOT air-conditioned. Program specific spaces are NOT air-conditioned.

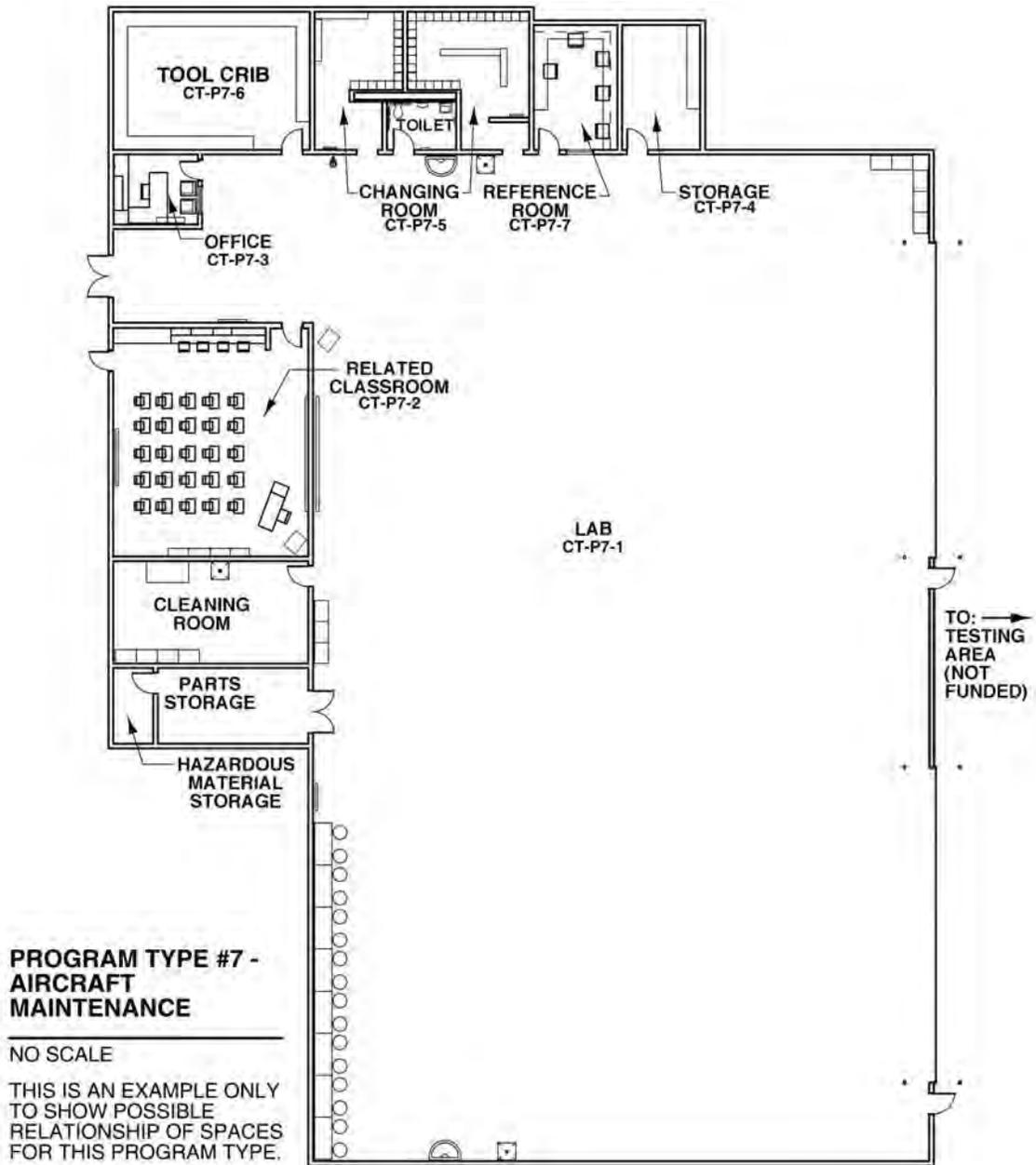
**Where necessary, include emergency shut-off switch for equipment.**

**NOTES:**

This is an example of how the Program Type 7 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

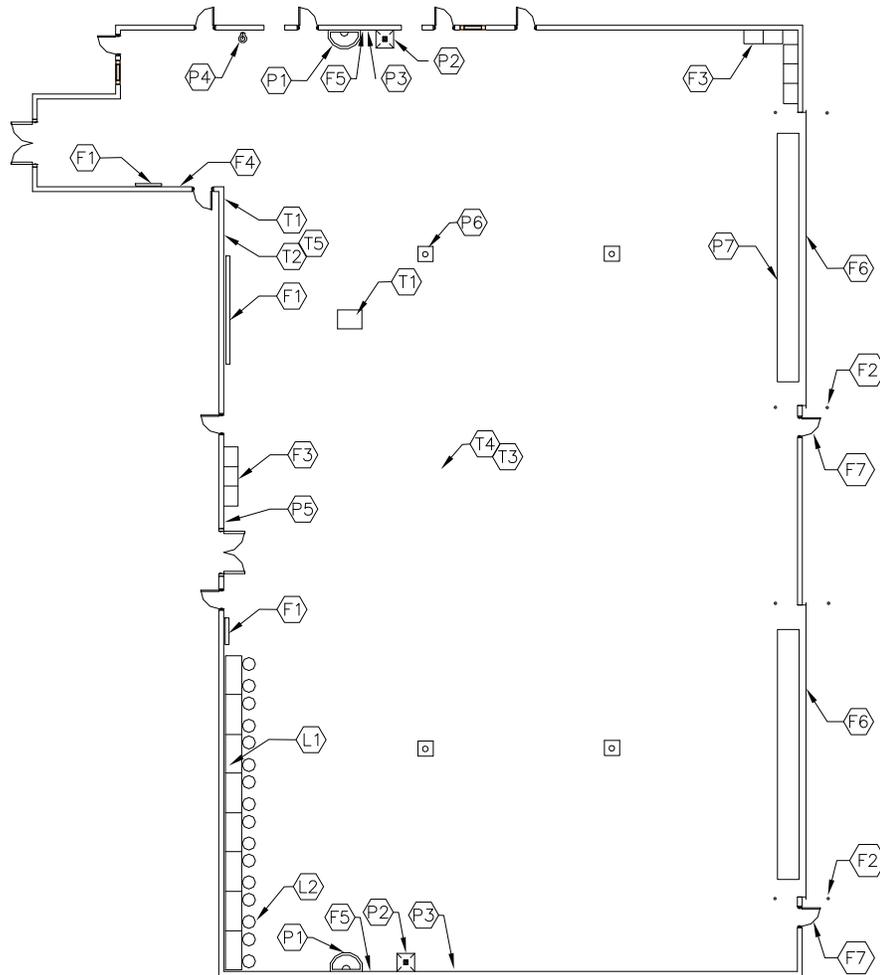
Following are the Program Type 7 space plates:

CT-P7-1	Lab
CT-P7-2	Related Classroom
CT-P7-3	Office
CT-P7-4	Storage
CT-P7-5	Changing Room
CT-P7-6	Tool Crib
CT-P7-7	Reference Room
CT-P7-8	Toilet Room



**NOTES:**

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	8,000 – 13,000 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P7-2 thru CT-P7-8

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- **Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.**  
**Recommended: Daylighting design with glazing area determined by design solution.**
- Environmental sound control -  
wall **only** minimum STC **45**  
ceiling minimum CAC 35, NRC 0.70

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

**TA – AIR TRANSPORTATION  
T0 / 17.0401 AIRCRAFT MAINTENANCE  
CT-P7-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b><u>PROGRAM DESCRIPTION:</u></b> Classroom and lab learning experiences concerned with the inspection, repair, servicing, and overhauling of all airplane parts, including engines, propellers, instruments, airframes, fuel and oil tanks, control cables and hydraulic units. Involves learning the use of technical manuals and various types of testing equipment.</p> <p><b>Program Type:</b> 7 <b>Size Requirements:</b> 13,000 SF Lab <b>Lab Requirements:</b></p> <p style="text-align: right;"><u>FINISHES:</u> Spec. Ref #</p> <p>Flooring: Sealed concrete 033000</p> <p>Ceiling: Painted, exposed structure 099100</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><b><u>LOOSE FURNISHINGS:</u></b></p> <p>L1 (8) Workbenches with heavy-duty metal tops L2 (24) Stools or chairs Wastebasket</p> <p><b><u>Electronic Safety and Security:</u></b> Life safety devices per code 283111</p> <p><b><u>Miscellaneous:</u></b> Pencil sharpener (optional) E1 Duplex receptacle with dedicated circuit for wireless devices</p> <p>The following items to be funded by the School District: Paint booth, paint prep station, paint mixing station</p> <p><b><u>Communications (cont'd):</u></b></p> <p>T4 Wireless access point (WAP) as determined by Design – refer to Note 2 272133</p> <p>T5 Classroom technology center video port 271543, 2741116, 2741119, 275127</p>	<p style="text-align: right;">Spec. Ref.#</p> <p><b><u>FEATURES<sup>1</sup>:</u></b> <b><u>Fixed Items:</u></b></p> <p>F1 24' of marker board, tack board, or tackable wall surface 101100</p> <p>F2 Reserved</p> <p>F3 24' of tall storage cabinets 123550</p> <p>F4 Pencil sharpener support (optional) 062000</p> <p>F5 (4) Paper towel dispensers 102813</p> <p>F6 (2) 35'high x 45'long motorized overhead sectional doors to exterior 083613</p> <p>F7 (2) 3'x7' hollow metal service doors to exterior 081113</p> <p>F8 Steel bollards at overhead door, both sides 055000</p> <p><b><u>Fire Suppression:</u></b> Fire suppression system 211000</p> <p><b><u>Plumbing:</u></b></p> <p>P1 2 washfountains (minimum) 224000</p> <p>P2 2 utility sinks (minimum) 224000</p> <p>P3 3 hose bibbs (minimum) 224000</p> <p>P4 Safety shower/eyewash 224000</p> <p>P5 14 compressed air connections 221500</p> <p>P6 2 floor drains 224000</p> <p>P7 1 trench drain 224000</p> <p>Plumbing connections 221116/221119/224000</p> <p><b><u>HVAC:</u></b> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><b><u>Electrical:</u></b> High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-5 Multilevel switching 262726 40 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726 220v service 262726</p> <p><b><u>Communications:</u></b></p> <p>T1 1 projector video port and video display device 271543/274119</p> <p>T2 1 voice port and phone 271513/273123</p> <p>T3 Wireless access point cable above ceiling 271513</p> <p>Clock 275313 Central sound system 275123</p>
--	--

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.

**TA AIR TRANSPORTATION  
T0 / 17.0401 AIRCRAFT MAINTENANCE  
Cleaning Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<b>Program Type:</b>	7	
<b>Size Requirements:</b>	400 SF	
<b>Requirements:</b>		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Suspended, acoustical	095113	
Option: painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(1) Work table		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 45		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES<sup>1</sup>:</u>
		<u>Fixed Items:</u>
		4' of tall storage cabinets           123550
		Paper towel dispenser               102813
		<u>Fire Suppression:</u>
		Fire suppression system           211000
		<u>Plumbing:</u>
		Utility sink                           224000
		Plumbing connections               221116/221119/224000
		Compressed air connections       221500
		<u>HVAC:</u>
		Supplemental heat as required     Div. 23
		Independent ventilation           Div. 23
		<u>Electrical:</u>
		Fluorescent lighting               265100
		Illumination level: See Table 8600-5
		Single level switching             262726
		4 duplex receptacles               262726
		<u>Communications:</u>
		Central sound system               275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code       283111
		<u>Miscellaneous:</u>
		N/A

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.

**TA AIR TRANSPORTATION  
T0 / 17.0401 AIRCRAFT MAINTENANCE  
Parts Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><b>Program Type:</b> 7</p> <p><b>Size Requirements:</b> 300 SF</p> <p><b>Requirements:</b></p> <p><u>FINISHES:</u>  <b>Flooring:</b>              Sealed concrete</p> <p><b>Ceiling:</b>              Fire-rated gypsum drywall</p> <p><b>Walls:</b>              Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u>              N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES<sup>1</sup>:</u>  <u>Fixed Items:</u>              30' of heavy duty steel adjustable shelving</p> <p><u>Fire Suppression:</u>              Fire suppression system</p> <p><u>Plumbing:</u>              N/A</p> <p><u>HVAC:</u>              Supplemental heat as required              Independent ventilation</p> <p><u>Electrical:</u>              Fluorescent lighting                  Illumination level: See Table 8600-5              Single level switching              2 duplex receptacles</p> <p><u>Communications:</u>              Central sound system</p> <p><u>Electronic Safety and Security:</u>              Life safety devices per code</p> <p><u>Miscellaneous:</u>              N/A</p>
--	--

NOTES:  
1. Finishes/Features: Refer to Chapter 9 for specification references.

**TA AIR TRANSPORTATION  
T0 / 17.0401 AIRCRAFT MAINTENANCE  
Hazardous Material Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<b>Program Type:</b> 7	<u>FEATURES<sup>1</sup>:</u>	Spec.
<b>Size Requirements:</b> 60 SF	<u>Fixed Items:</u>	<u>Ref.#</u>
<b>Requirements:</b>	N/A	
<u>FINISHES:</u>	<u>Fire Suppression:</u>	
Flooring:	Fire suppression system	211000
Sealed concrete	Spec.	
	<u>Ref #</u>	
Ceiling:	<u>Plumbing:</u>	
Fire-rated gypsum drywall	N/A	
092116	<u>HVAC:</u>	
Walls:	Supplemental heat as required	Div. 23
Painted concrete masonry units	<u>Electrical:</u>	
042000/ 099100	Fluorescent lighting	265100
	Illumination level: See Table 8600-5	
	Single level switching	262726
	2 duplex receptacles	262726
<u>LOOSE FURNISHINGS:</u>	<u>Communications:</u>	
N/A	Central sound system	275123
	<u>Electronic Safety and Security:</u>	
	Life safety devices per code	283111
<u>ENVIRONMENTAL CONSIDERATIONS:</u>	<u>Miscellaneous:</u>	
<ul style="list-style-type: none"> <li>▪ Wall minimum STC 45</li> <li>▪ This room to be one-story (14'+/-) tall, located within high-bay program.</li> </ul>	N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**A2 / 01.0901 ANIMAL SCIENCE AND MANAGEMENT (EQUINE)**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

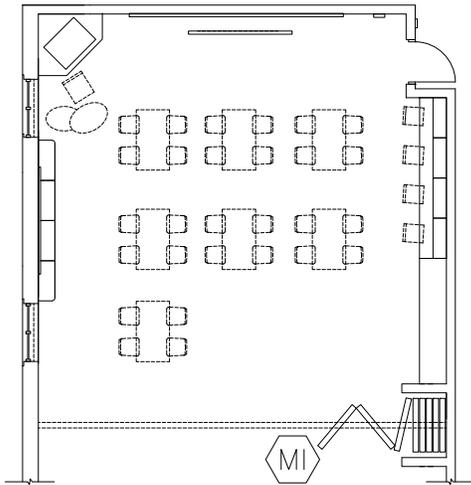
**CT-P7-1**

<b><u>PROGRAM DESCRIPTION:</u></b>	Applies principles of anatomy and physiology, nutrition, reproduction, health, and genetics and behavior to the production, management, marketing, and training of domestic animals.	<b><u>FEATURES<sup>1</sup>:</u></b>	Spec.
<b>Program Type:</b>	7	<b><u>Fixed Items:</u></b>	<b><u>Ref.#</u></b>
<b>Size Requirements:</b>	8,000 SF Lab	180' of metal pipe rail fencing	055000
<b>Lab Requirements:</b>	Spec. <b><u>Ref #</u></b>	12' x 14' motorized overhead	083613
<b><u>FINISHES:</u></b>	Flooring: Compacted earth	sectional door to exterior	081113
<b>Ceiling:</b>	Painted, exposed structure 099100	3'x7' hollow metal service door	081113
<b>Walls:</b>	Painted exposed structure 099100	to exterior	055000
<b><u>LOOSE FURNISHINGS:</u></b>	N/A	<b><u>Fire Suppression:</u></b>	211000
<b><u>SITE FEATURE:</u></b>	Plan for the following if required by school curriculum requirements: Fenced riding area	Fire suppression system	
<b><u>Miscellaneous:</u></b>	N/A	<b><u>Plumbing:</u></b>	224000
<b><u>HVAC:</u></b>	Supply/return air system Div. 23 Independent temperature control 230923	2 hose bibbs (minimum)	221116/221119/224000
<b><u>Electrical:</u></b>	High intensity lighting or 265100 fluorescent lighting Illumination level: See Table 8600-5 Multilevel switching 262726 12 duplex receptacles (minimum) 262726	<b><u>Communications:</u></b>	271513/273123
<b><u>Electronic Safety and Security:</u></b>	Life safety devices per code 283111	1 voice port and phone	275313
Clock	275123	Central sound system	

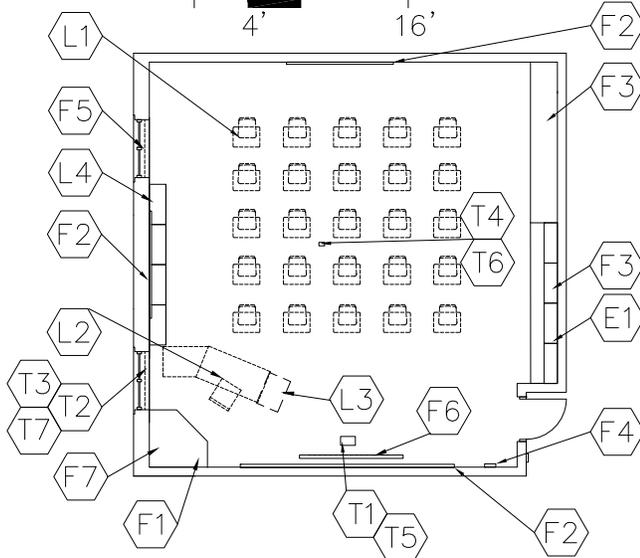
**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.





CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

**CAPACITY:** 25 students  
**SIZE:** 900 SF

**PROGRAM ACTIVITIES:**

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

**SPATIAL RELATIONSHIPS:**

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Required: View glass – minimum 5% without daylighting design; minimum 3% with daylighting design.  
Recommended: Daylighting design with glazing area determined by design solution.
- Environmental sound control -  
wall only minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

**NOTES:**

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

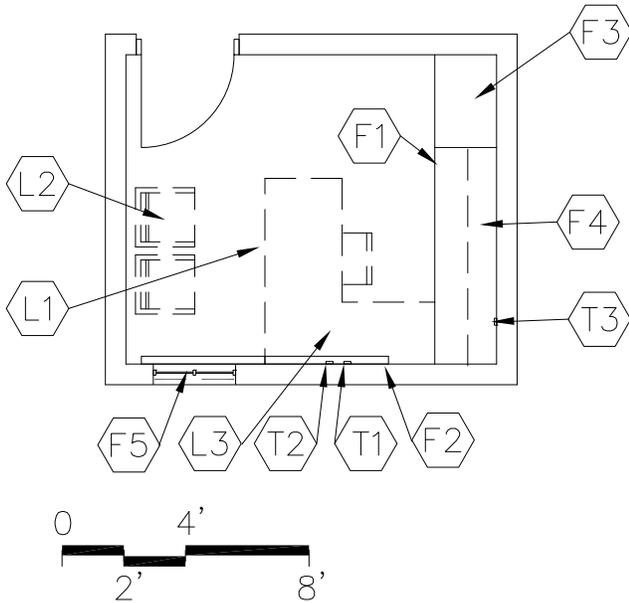
**RELATED CLASSROOM  
CT-P7-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	<b>F1</b> Tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500 096813	<b>F2</b> 20'-32' combination marker board, tack board and tackable wall surface	101100
<u>Base:</u>		<b>F3</b> 18'-24' combination base and wall cabinets	123550
Resilient base	096500	<b>F4</b> Pencil sharpener support (optional)	062000
<u>Ceiling:</u>		<b>F5</b> Windows with integral blinds	085113
Suspended, acoustical	095113	<b>F6</b> Projection screen (optional)	115213
<u>Walls:</u>		<b>F7</b> Technology support casework	123550
Painted concrete masonry units	042000/099100	<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Student desks and chairs		Supply/return air system	Div. 23
L2 Teacher desk or workstation/computer support and chair		Independent temperature control	230923
L3 File cabinet		<u>Electrical:</u>	
L4 9' of low bookcases (fixed or mobile) Wastebasket		Fluorescent lighting:	265100
		Illumination level: See Table 8600-5	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 <b>projector</b> video port	271543
		T2 1 voice port and phone	271513/273123
		T3 1 data port near teacher workstation	271513
		T4 <b>Wireless access point cable above ceiling</b>	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
<u>Miscellaneous:</u>		T5 <b>Ultra-short throw interactive</b> projector	274119
Pencil sharpener ( <i>optional</i> )		T6 <b>Wireless access point (WAP) as determined by Design – refer to Note 4</b>	272133
M1 Operable partitions between classrooms are optional	02226	T7 <b>Classroom technology center video port</b>	271543, 274116, 274119, 275127
<b>E1 Duplex receptacle with dedicated circuit for wireless devices</b>		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.
4. **Baseline includes WAP cable per classroom. WAP device quantity / placement per 272133 requirements.**



**PROGRAM ACTIVITIES:**

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

**SPATIAL RELATIONSHIPS:**

- Near related lab
- Direct access to school circulation areas

**ENVIRONMENTAL CONSIDERATIONS:**

- Environmental sound control -  
wall minimum STC 45  
ceiling minimum CAC 35, NRC 0.70

CAPACITY: 1 - 3 persons  
SIZE: 120 SF

**NOTES:**

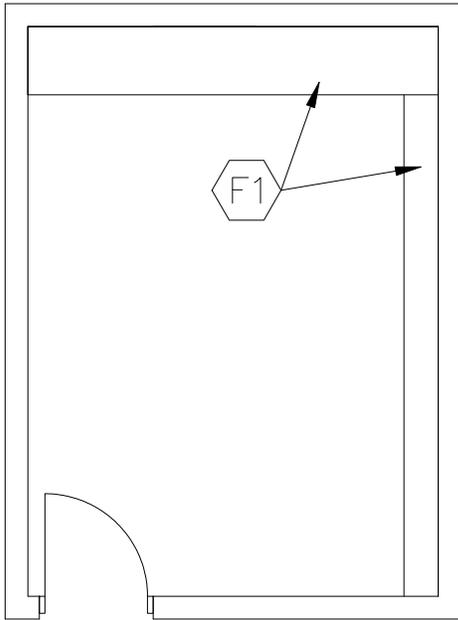
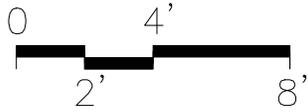
1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE  
CT-P7-3**

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet or carpet tile	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 Tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273123
		T2 1 data port near workstation	271513
		T3 1 <b>projector</b> video port	271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.



PROGRAM ACTIVITIES:

- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:  
SIZE:

N/A  
200 SF

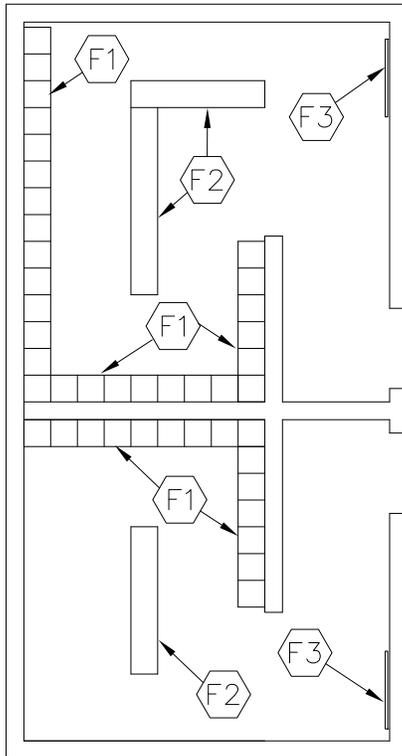
NOTES:

**STORAGE AREA  
CT-P7-4**

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES<sup>1</sup>:</u>		<u>FEATURES<sup>1</sup>:</u>	
Flooring:		<u>Fixed Items<sup>1</sup>:</u>	
<b>Sealed</b> concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



50 total lockers

CAPACITY: N/A  
 SIZE: 9 SF per student (see Note 2)

**PROGRAM ACTIVITIES:**

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
 Wall minimum STC 40  
 Ceiling minimum CAC 35, NRC 0.70

**NOTES:**

1. Large and small changing areas are interchangeable for either males or females. Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times 30.

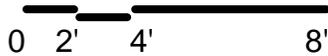
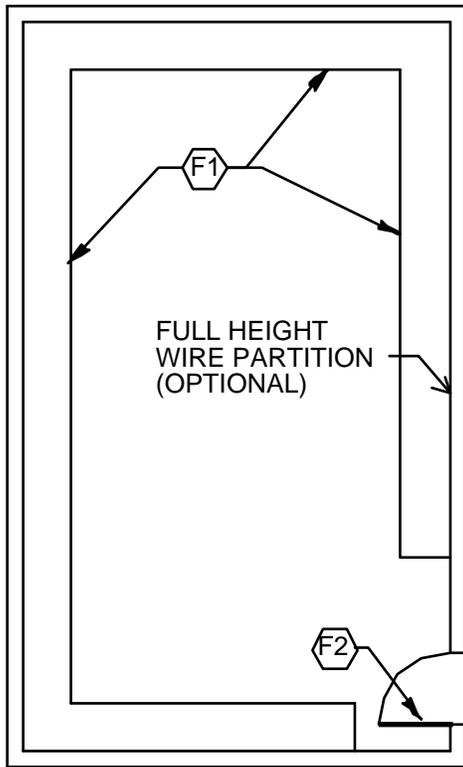
**CHANGING ROOM  
CT-P7-5**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES<sup>1</sup>:</u>	Spec. Ref.#	<u>FEATURES<sup>1</sup>:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items<sup>1</sup>:</u>	
Polished concrete finishing, or colored concrete finishing	033510 033519	F1 Student lockers	105113
Optional: linoleum or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical with high impact hold down clips	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Supply/Return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-6	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



**PROGRAM ACTIVITIES:**

- Storage of program related tools and instruments.
- Storage of students' tools.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

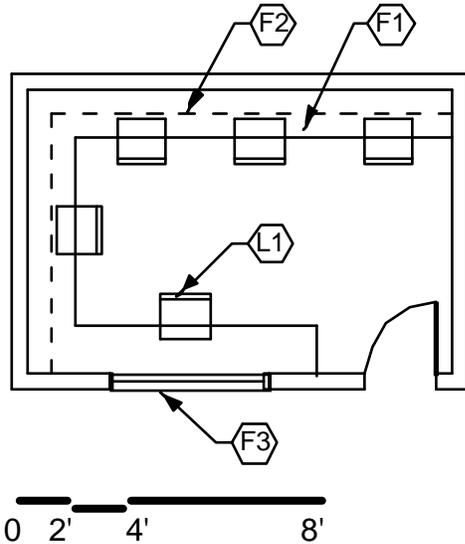
- Sanitary and durable finishes

CAPACITY:  
SIZE:  
ANCILLARY SPACES:

N/A  
550 SF

NOTES:





PROGRAM ACTIVITIES:

- Individual computer research.
- Reference program specific manuals.
- Small group meetings.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Sanitary and durable finishes
- Environmental sound control
  - Wall **only** minimum STC **45**
  - Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
200 SF

NOTES:

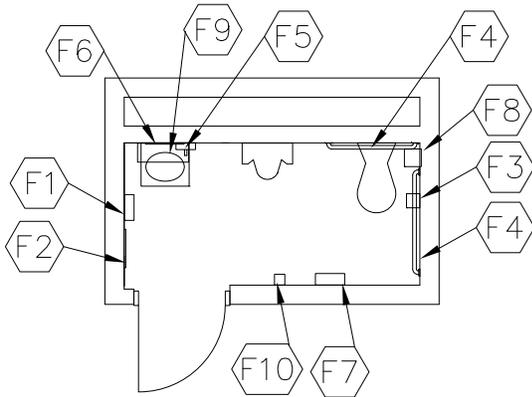
**REFERENCE ROOM  
CT-P7-7**

**CHAPTER 6: CAREER-TECHNICAL SCHOOL**

	Spec. Ref.#		Spec. Ref.#
<b><u>FINISHES<sup>1</sup>:</u></b>		<b><u>FEATURES<sup>1</sup>:</u></b>	
Flooring:		<b><u>Fixed Items:</u></b>	
<b>Sealed</b> concrete	033000	F1 34' of plastic lam. counter	062000
Optional: rubber	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113/ 088000
Base:		<b><u>Fire Suppression:</u></b>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<b><u>Plumbing:</u></b>	
Suspended, acoustical	095113	N/A	
Walls:		<b><u>HVAC:</u></b>	
Painted concrete masonry units	042000 / 099100	Supply/return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<b><u>LOOSE FURNISHINGS</u></b>		<b><u>Electrical:</u></b>	
L3 Student chairs		Single level switching	262726
Wastebasket		Fluorescent lighting	265100
		Illumination level: See Table 8600-5	
		2 Duplex receptacles	262726
		Duplex receptacle adjacent to	
		Each data and video port	262726
		<b><u>Communications:</u></b>	
		T1 6 data ports	271513
		<b><u>Electronic Safety and Security:</u></b>	
		Life safety devices per code	283111
		<b><u>Miscellaneous:</u></b>	
		N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.



**PROGRAM ACTIVITIES:**

- Personal and health needs for the program
- Specific users
- Changing of clothes and/or uniforms.

**SPATIAL RELATIONSHIPS:**

- Adjacent to related lab

**ENVIRONMENTAL CONSIDERATIONS:**

- Sanitary and durable finishes.
- Environmental sound control  
 Wall minimum STC 48  
 Ceiling minimum CAC 35, NRC 0.70

CAPACITY:  
SIZE:

N/A  
68 SF

NOTES:

**TOILET ROOM  
CT-P7-8**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. <u>Ref.#</u>
<b><u>FINISHES<sup>1</sup>:</u></b>	
Flooring:	
<b>Sealed concrete</b>	<b>093000</b>
Optional: Rubber	096500
Base:	
Resilient base	096500
Ceiling:	
Suspended, acoustical	095113
Walls:	
Painted concrete masonry units	042000 / 099100
<b><u>LOOSE FURNISHINGS</u></b>	
Wastebaskets	

	Spec. <u>Ref.#</u>
<b><u>FEATURES<sup>1</sup>:</u></b>	
<b><u>Fixed Items:</u></b>	
F1 Towel dispenser	102813
F2 24" x 60" mirror	102813
F3 Toilet tissue holder	102813
F4 36" and 42" grab bars	102813
F5 Soap dispenser	102813
F6 16" x 24" mirror	102813
F7 Sanitary product dispenser	102813
F8 Sanitary product receptacle	102813
F9 Stainless steel shelf (optional)	102813
F10 Coat hook	102813
<b><u>Fire Suppression:</u></b>	
Fire suppression system	211000
<b><u>Plumbing:</u></b>	
Plumbing connections	221116/221119/224000
<b><u>HVAC:</u></b>	
Supply/return air system	Div. 23
Exhaust air system	Div. 23
Supplemental heat as required	Div. 23
Individual temperature control	230923
<b><u>Electrical:</u></b>	
Single level switching	262726
Fluorescent lighting	265100
Illumination level: See Table 8600-5	
2 Duplex receptacles	262726
Means of egress lighting per code	265100
<b><u>Communications:</u></b>	
Clock	275313
<b><u>Electronic Safety and Security:</u></b>	
Life safety devices per code	283111
<b><u>Miscellaneous:</u></b>	
N/A	

**NOTES:**

1. Finishes/Features: Refer to Chapter 9 for specification references.