

OHIO SCHOOL
FACILITIES
COMMISSION

2010
OHIO
SCHOOL
DESIGN
MANUAL



The Ohio School Facilities Commission is pleased to announce the 2010 Ohio School Design Manual (OSDM) update.

Each year the Commission revises the OSDM with support and valuable input from the design and construction community, school districts, state agencies and other interested parties. The result is a dynamic document that reinforces our commitment to high quality school facilities while maintaining flexibility and local control.

The manual is a cornerstone of the Commission's efforts to promote the 21st century learning environment, providing guidelines that serve the diverse needs of local school communities and their students. For our Design Professionals, the OSDM provides a wide selection of high quality materials and systems to serve the districts over the entire lifecycle of the building. This approach ensures that both the district and the taxpayers of Ohio achieve the maximum benefit from their investment.

Ohio continues to build on past design achievements that meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) for Schools. The LEED system is the national benchmark for high performance green buildings.

The OSFC acknowledges the difficult design and construction tasks that ultimately result in the buildings so critical to our Ohio communities and the new educational goals set by Governor Strickland. There is a necessary balance measured between the complexity and cost of 21st century structures and the sustainability and maintenance requirements to be born by local taxpayers for decades to come. The OSFC will be guided by best practices, mindful that what we build today must last.

We look forward to working with you to design and build exciting educational environments for Ohio school students.

Sincerely,

Ohio School Facilities Commission

Richard C. Murray
Executive Director

FOREWORD

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OHIO SCHOOL DESIGN MANUAL

Ohio School Facilities Commission

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Chapter 10: Miscellaneous (Career-Technical)

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(Revised 7/1/99, 7/1/00, 7/1/01, 4/1/02, 4/1/03, 4/1/04, 4/1/05, 2006, 2007, 2008, 2009, and **2010**)

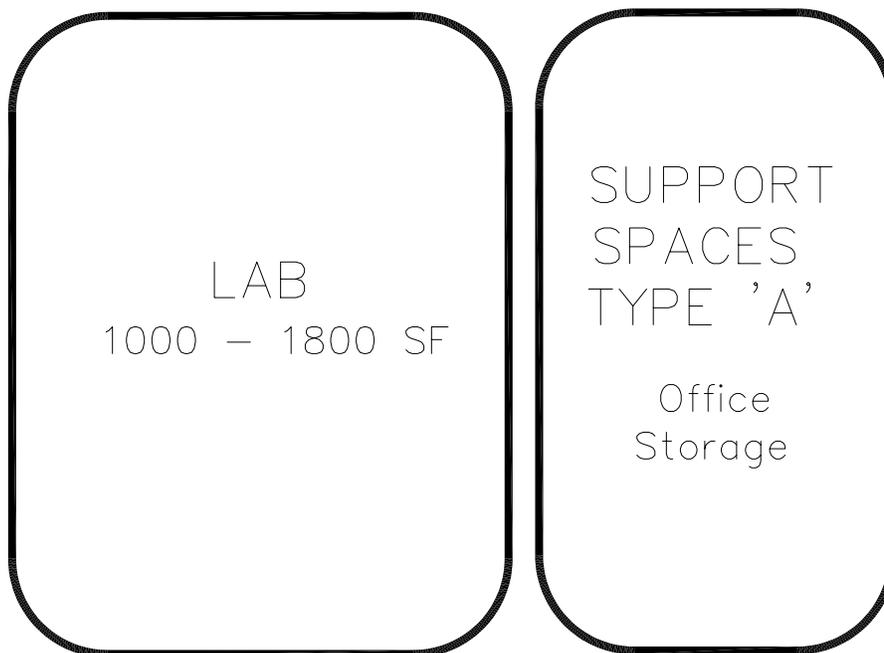
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Program Type 1

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.

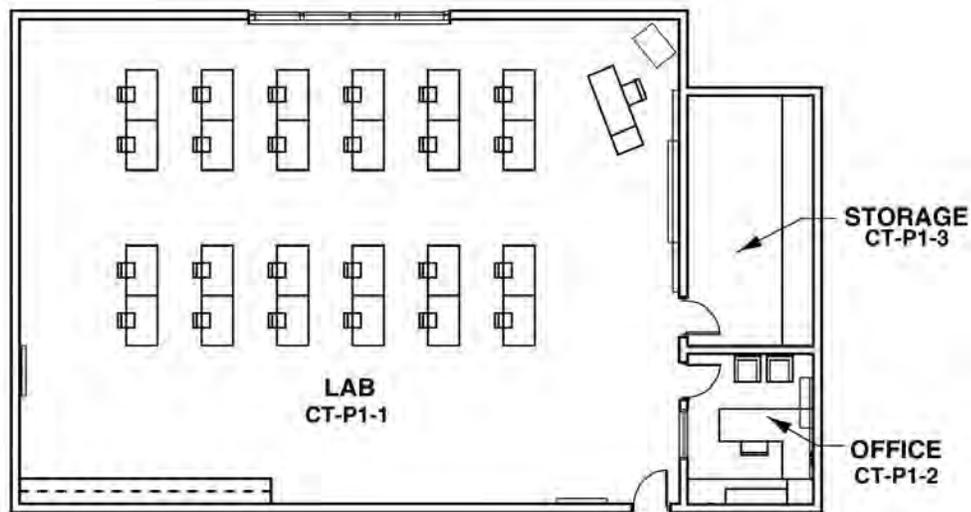
**NOTES:**

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
EXAMPLE**

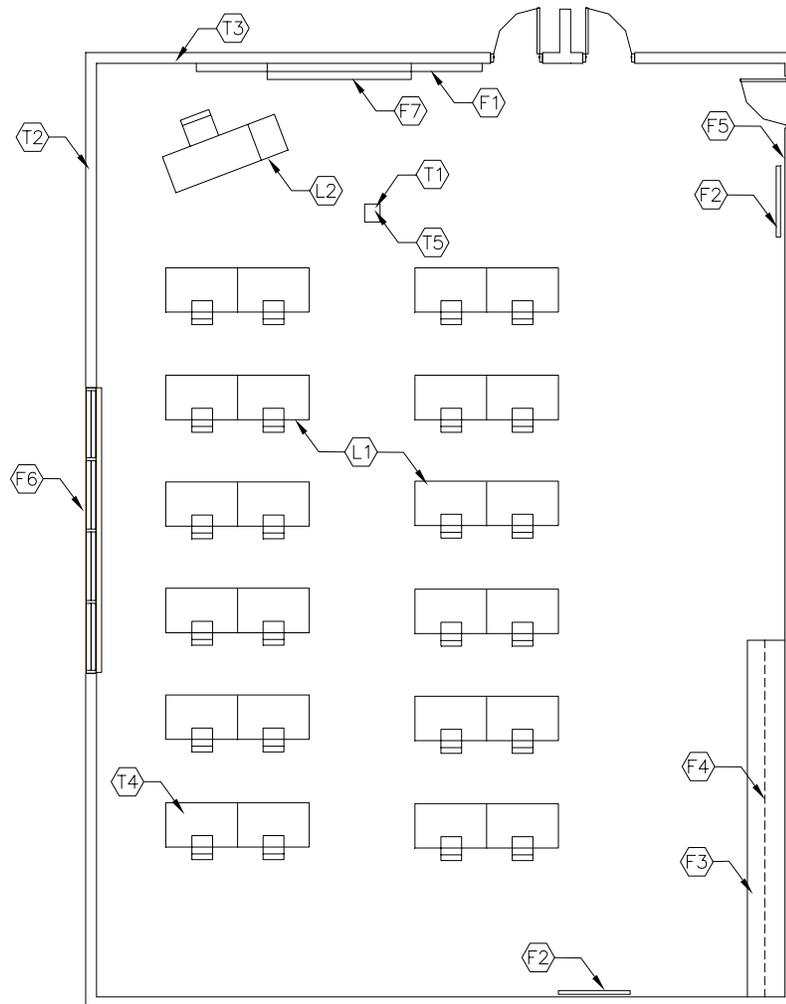


Program Type 1

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.

LAB
CT-P1-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
 walls minimum STC 50
 ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

**ACCOUNTING
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> <i>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.</i></p> <p>Program Type: 1</p> <p>Size Requirements: 1,200 SF Lab</p> <p>Lab Requirements:</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> 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>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> <tr> <td><u>LOOSE FURNISHINGS:</u></td> <td></td> </tr> <tr> <td>L1 (24) Computer workstation furniture & chairs</td> <td></td> </tr> <tr> <td>L2 (1) Teacher station & chair</td> <td></td> </tr> <tr> <td> Wastebasket</td> <td></td> </tr> <tr> <td> Pencil sharpener</td> <td></td> </tr> </table>	<u>FINISHES:</u>	Spec.	Flooring:	<u>Ref #</u>	Carpet	096816	Optional: 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>		L1 (24) Computer workstation furniture & chairs		L2 (1) Teacher station & chair		Wastebasket		Pencil sharpener		<p><u>FEATURES¹:</u></p> <p><u>Fixed Items:</u></p> <table border="0"> <tr> <td>F1</td> <td>16' of chalk/marker board</td> <td style="text-align: right;">101100</td> </tr> <tr> <td>F2</td> <td>8' of tack board</td> <td style="text-align: right;">101100</td> </tr> <tr> <td>F3</td> <td>20' of base cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>F4</td> <td>20' of wall cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td>F5</td> <td>Pencil sharpener support</td> <td style="text-align: right;">062000</td> </tr> <tr> <td>F6</td> <td>Windows with integral blinds</td> <td style="text-align: right;">085113</td> </tr> <tr> <td>F7</td> <td>Projection screen, 6'x8'</td> <td style="text-align: right;">115213</td> </tr> </table> <p><u>Fire Suppression:</u></p> <table border="0"> <tr> <td></td> <td>Fire suppression system</td> <td style="text-align: right;">211000</td> </tr> </table> <p><u>Plumbing:</u></p> <p style="text-align: center;">N/A</p> <p><u>HVAC:</u></p> <table border="0"> <tr> <td></td> <td>Supply/return air system</td> <td style="text-align: right;">Div. 23</td> </tr> <tr> <td></td> <td>Independent temperature control</td> <td style="text-align: right;">230923</td> </tr> </table> <p><u>Electrical:</u></p> <table border="0"> <tr> <td></td> <td>Fluorescent lighting, parabolic lenses:</td> <td style="text-align: right;">265100</td> </tr> <tr> <td></td> <td> Illumination level: See Table 8600-4</td> <td></td> </tr> <tr> <td></td> <td>Multilevel switching</td> <td style="text-align: right;">262726</td> </tr> <tr> <td></td> <td>6 duplex receptacles</td> <td style="text-align: right;">262726</td> </tr> <tr> <td></td> <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>T1</td> <td>1 video port</td> <td style="text-align: right;">271533/271543</td> </tr> <tr> <td>T2</td> <td>1 voice port and phone</td> <td style="text-align: right;">271513/273113</td> </tr> <tr> <td>T3</td> <td>1 data port near teacher workstation</td> <td style="text-align: right;">271513</td> </tr> <tr> <td>T4</td> <td>26 data ports</td> <td style="text-align: right;">271513</td> </tr> <tr> <td></td> <td>Clock</td> <td style="text-align: right;">275313</td> </tr> <tr> <td></td> <td>Central sound system</td> <td style="text-align: right;">275123</td> </tr> <tr> <td></td> <td>Sound reinforcement system</td> <td style="text-align: right;">275127</td> </tr> <tr> <td>T5</td> <td>Overhead projector</td> <td style="text-align: right;">274119</td> </tr> </table> <p><u>Electronic Safety and Security:</u></p> <table border="0"> <tr> <td></td> <td>Life safety devices per code</td> <td style="text-align: right;">283111</td> </tr> </table> <p><u>Miscellaneous:</u></p> <p style="text-align: center;">N/A</p>	F1	16' of chalk/marker board	101100	F2	8' of tack board	101100	F3	20' of base cabinets	123550	F4	20' of wall cabinets	123550	F5	Pencil sharpener support	062000	F6	Windows with integral blinds	085113	F7	Projection screen, 6'x8'	115213		Fire suppression system	211000		Supply/return air system	Div. 23		Independent temperature control	230923		Fluorescent lighting, parabolic lenses:	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	T1	1 video port	271533/271543	T2	1 voice port and phone	271513/273113	T3	1 data port near teacher workstation	271513	T4	26 data ports	271513		Clock	275313		Central sound system	275123		Sound reinforcement system	275127	T5	Overhead projector	274119		Life safety devices per code	283111
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1. Finishes/Features: Refer to Chapter 9 for specification references.

**ADMINISTRATIVE and PROFESSIONAL SUPPORT
LEGAL MANAGEMENT and SUPPORT
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	Spec. Ref.#																																																										
<p>A&PS: <i>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.</i></p> <p>LM&S: <i>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.</i></p> <p>Program Type: 1 Size Requirements: 1,200 SF Lab Lab Requirements:</p> <p>FINISHES:</p> <p>Flooring:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Carpet</td> <td style="text-align: right;">096816</td> </tr> <tr> <td style="padding-left: 20px;">Optional: ET, sheet vinyl, or linoleum</td> <td style="text-align: right;">096500 096516</td> </tr> </table> <p>Base:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Resilient</td> <td style="text-align: right;">096500</td> </tr> </table> <p>Ceiling:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Suspended acoustical</td> <td style="text-align: right;">095113</td> </tr> </table> <p>Walls:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Painted concrete masonry units</td> <td style="text-align: right;">042000/ 099100</td> </tr> </table>	Carpet	096816	Optional: ET, sheet vinyl, or linoleum	096500 096516	Resilient	096500	Suspended acoustical	095113	Painted concrete masonry units	042000/ 099100	<p>FEATURES¹:</p> <p>Fixed Items:</p> <table style="width: 100%; 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AVIATION OCCUPATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P1-1

<u>PROGRAM DESCRIPTION:</u>		Spec.
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).		Ref.#
Program Type:	1	
Size Requirements:	1,500 SF Lab	
Lab Requirements:		
<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>		
(12) 2-person work tables w/epoxy tops and gas & electric connections		
(24) Student stools/chairs		
(1) Teacher chair or stool		
(4) Computer workstations		
Wastebasket		
Pencil sharpener		
<u>Miscellaneous:</u>		
N/A		
<u>NOTES:</u>		
1. Finishes/Features: Refer to Chapter 9 for specification references.		
	<u>FEATURES¹:</u>	
	<u>Fixed Items:</u>	
	16' of chalk/marker board	101100
	8' of tack board	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	062000
	Windows with integral blinds	085113
	Projection screen, 6'x8'	115213
	<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
	Compressed air connections	221500
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Manual exhaust	Div. 23
	Fume hood exhaust	Div. 23
	<u>Electrical:</u>	
	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
	Emergency lighting	265100
	Means of egress lighting per code	265100
	<u>Communications:</u>	
	1 video port	271533/271543
	1 voice port and phone	271513/273113
	1 data port near teacher workstation	271513
	11 data ports	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
	Overhead projector	274119
	<u>Electronic Safety and Security:</u>	
	Life safety devices per code	283111

**BUSINESS MANAGEMENT
CT-P1-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
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.		
Program Type:	1	
Size Requirements:	1,200 SF Lab	
Lab Requirements:		
	Spec. <u>Ref #</u>	
<u>FINISHES:</u>		
Flooring:		
Carpet	096816	
Optional: 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>		
L1 (24) Computer workstation furniture & chairs		
L2 (1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
F1 16' of chalk/marker board		101100
F2 8' of tack board		101100
F3 20' of base cabinets		123550
F4 20' of wall cabinets		123550
F5 Pencil sharpener support		062000
F6 Windows with integral blinds		085113
F7 Projection screen, 6'x8'		115213
<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, parabolic lenses:	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	
<u>Communications:</u>		
T1 1 video port		271533/271543
T2 1 voice port and phone		271513/273113
T3 1 data port near teacher workstation		271513
T4 26 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
T5 Overhead projector		274119
<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.

**ELECTRONICS
AUTOMATION & ROBOTICS
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> <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 & 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>Program Type: 1</p> <p>Size Requirements: 1,800 SF Lab</p> <p>Lab Requirements:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;"><u>FINISHES:</u></td> <td style="text-align: right; vertical-align: bottom;">Spec. 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Painted concrete masonry units	042000/ 099100																																																																																		
 <u>LOOSE FURNISHINGS:</u>																																																																																			
(12) Two-person work tables w/storage below																																																																																			
(24) Computer workstation furniture & chairs																																																																																			
(1) Teacher station & chair																																																																																			
Wastebasket																																																																																			
Pencil sharpener																																																																																			
16' of chalk/marker board	101100																																																																																		
8' of tack board	101100																																																																																		
30' of base cabinets	123550																																																																																		
30' of wall cabinets	123550																																																																																		
12' of tall storage cabinets	123550																																																																																		
Pencil sharpener support	062000																																																																																		
Windows with integral blinds	085113																																																																																		
Projection screen, 6'x8'	115213																																																																																		
Fire suppression system	211000																																																																																		
Supply/return air system	Div. 23																																																																																		
Independent temperature control	230923																																																																																		
Fluorescent lighting, parabolic lenses:	265100																																																																																		
Illumination level: See Table 8600-4																																																																																			
Multilevel switching	262726																																																																																		
6 duplex receptacles	262726																																																																																		
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26 data ports	271513																																																																																		
Clock	275313																																																																																		
Central sound system	275123																																																																																		
Sound reinforcement system	275127																																																																																		
Overhead projector	274119																																																																																		
Life safety devices per code	283111																																																																																		

NOTES:

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

**FINANCIAL SERVICES
CT-P1-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	
		Fixed Items:	
			Spec. Ref.#
<i>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.</i>		F1	16' of chalk/marker board 101100
		F2	8' of tack board 101100
		F3	20' of base cabinets 123550
		F4	20' of wall cabinets 123550
		F5	Pencil sharpener support 062000
		F6	Windows with integral blinds 085113
		F7	Projection screen, 6'x8' 115213
		Fire Suppression:	
			Fire suppression system 211000
Program Type: 1		Plumbing:	
		N/A	
Size Requirements: 1,200 SF Lab		HVAC:	
Lab Requirements:		Supply/return air system Div. 23	
		Independent temperature control 230923	
FINISHES:		Electrical:	
		Fluorescent lighting, parabolic lenses: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	
		Communications:	
		T1	1 video port 271533/271543
		T2	1 voice port and phone 271513/273113
		T3	1 data port near teacher workstation 271513
		T4	26 data ports 271513
			Clock 275313
			Central sound system 275123
			Sound reinforcement system 275127
		T5	Overhead projector 274119
		Electronic Safety and Security:	
			Life safety devices per code 283111
		Miscellaneous:	
		N/A	
Program Type: 1			
Size Requirements: 1,200 SF Lab			
Lab Requirements:			
FINISHES:			
Flooring:			
Carpet		096816	
Optional: ET, sheet vinyl, or linoleum		096500	
		096516	
Base:			
Resilient		096500	
Ceiling:			
Suspended acoustical		095113	
Walls:			
Painted concrete masonry units		042000/ 099100	
LOOSE FURNISHINGS:			
L1 (24) Computer workstation furniture & chairs			
L2 (1) Teacher station & chair			
Wastebasket			
Pencil sharpener			

NOTES:

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

**MEDICAL MANAGEMENT AND SUPPORT
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec.
<i>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.</i>	<u>Fixed Items:</u>	<u>Ref.#</u>
Program Type: 1	16' of chalk/marker board 101100 8' of tack board 101100 20' of sink base cabinets w/1 sink 123550 20' of wall cabinets 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Projection screen, 6'x8' 115213 Paper towel dispenser 102813	
Size Requirements: 1,200 SF Lab	<u>Fire Suppression:</u>	
Lab Requirements:	Fire suppression system 211000	
<u>FINISHES:</u>	<u>Plumbing:</u>	
Flooring: ET, sheet vinyl, or linoleum 096500 096516 Optional: carpet 096816	Plumbing connections 221116/221119/224000	
Base: Resilient 096500	<u>HVAC:</u>	
Ceiling: Suspended acoustical 095113	Supply/return air system Div. 23 Independent temperature control 230923	
Walls: Painted concrete masonry units 042000/ 099100	<u>Electrical:</u>	
<u>LOOSE FURNISHINGS:</u> (12) Two-person work stables (24) Student chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener	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	
	<u>Communications:</u>	
	1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 Overhead projector 274119	
	<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.

TELECOMMUNICATIONS
CT-P1-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
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.		
Program Type:	1	
Size Requirements:	1,200 SF Lab	
Lab Requirements:		
	Spec. <u>Ref #</u>	
<u>FINISHES:</u>		
Flooring:		
Carpet	096816	
Optional: 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>		
L1 (24) Computer workstation furniture & chairs		
L2 (1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
F1 16' of chalk/marker board		101100
F2 8' of tack board		101100
F3 20' of base cabinets		123550
F4 20' of wall cabinets		123550
F5 Pencil sharpener support		062000
F6 Windows with integral blinds		085113
F7 Projection screen, 6'x8'		115213
<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, parabolic lenses:	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	
<u>Communications:</u>		
T1 1 video port		271533/271543
T2 1 voice port and phone		271513/273113
T3 1 data port near teacher workstation		271513
T4 26 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
T5 Overhead projector		274119
<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.

**TRAVEL AND TOURISM
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		Spec. Ref.#
<u>T&T</u> - 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.		
Program Type:	1	
Size Requirements:	1,200 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
<u>Flooring:</u>		
Carpet	096816	
Optional: ET, sheet vinyl, or linoleum	096500 096516	
<u>Base:</u>		
Resilient	096500	
<u>Ceiling:</u>		
Suspended acoustical	095113	
<u>Walls:</u>		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
L1 (24) Computer workstation furniture & chairs		
L2 (1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
	F1 16' of chalk/marker board	101100
	F2 8' of tack board	101100
	F3 20' of base cabinets	123550
	F4 20' of wall cabinets	123550
	F5 Pencil sharpener support	062000
	F6 Windows with integral blinds	085113
	F7 Projection screen, 6'x8'	115213
	<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, parabolic lenses:	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
	<u>Communications:</u>	
	T1 1 video port	271533/271543
	T2 1 voice port and phone	271513/273113
	T3 1 data port near teacher workstation	271513
	T4 26 data ports	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
	T5 Overhead projector	274119
	<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.

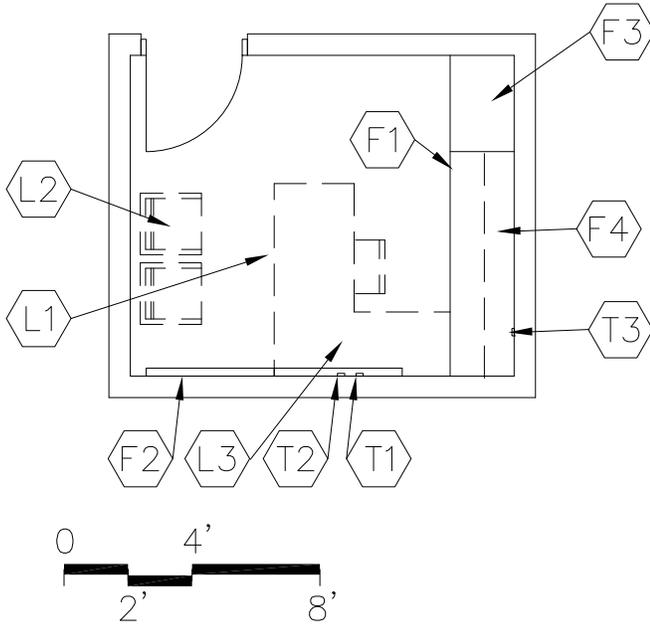
**VISUAL DESIGN AND IMAGING ■ INFORMATION SUPPORT & SERVICES
PROGRAMMING and SOFTWARE DEVELOPMENT
NETWORK SYSTEMS ■ INTERACTIVE MEDIA
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	Spec. Ref.#
<u>VD&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&S:</u> An instructional program that provides training for careers in dealing in information technology deployment and information systems management.	
<u>P&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.	
Program Type: 1	
Size Requirements: 1,200 SF Lab	
Lab Requirements:	Spec.
<u>FINISHES:</u>	<u>Ref #</u>
Flooring:	
Carpet	096816
Optional: ET, sheet vinyl, or linoleum	096500 096516
Base: Resilient	096500
Ceiling:	
Suspended acoustical	095113
Walls:	
Painted concrete masonry units	042000/ 099100
	<u>FEATURES¹:</u>
	<u>Fixed Items:</u>
F1	16' of chalk/marker board 101100
F2	8' of tack board 101100
F3	20' of base cabinets 123550
F4	20' of wall cabinets 123550
F5	Pencil sharpener support 062000
F6	Windows with integral blinds 085113
F7	Projection screen, 6'x8' 115213
	<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, parabolic lenses: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
	<u>Communications:</u>
T1	1 video port 271533/271543
T2	1 voice port and phone 271513/273113
T3	1 data port near teacher workstation 271513
T4	26 data ports 271513
	Clock 275313
	Central sound system 275123
	Sound reinforcement system 275127
T5	Overhead projector 274119
	<u>Electronic Safety and Security:</u>
	Life safety devices per code 283111
	<u>Miscellaneous:</u>
	N/A
	<u>LOOSE FURNISHINGS:</u>
L1	(24) Computer workstation furniture & chairs
L2	(1) Teacher station & chair
	Wastebasket
	Pencil sharpener

NOTES:

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



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:

- Uniform lighting
- 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**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</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 2' of 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 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		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:

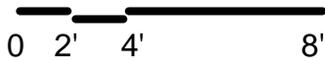
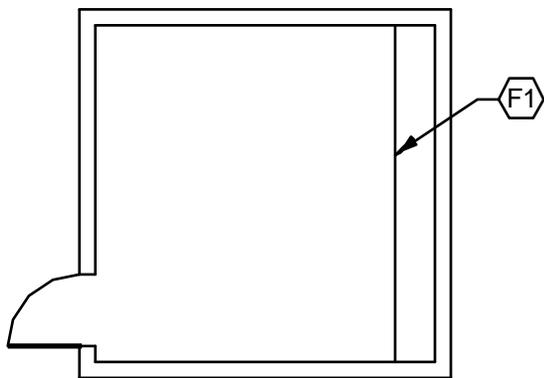
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

NOTES:

**STORAGE AREA
CT-P1-3**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Cure and seal 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 8600-4	
		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.

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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.

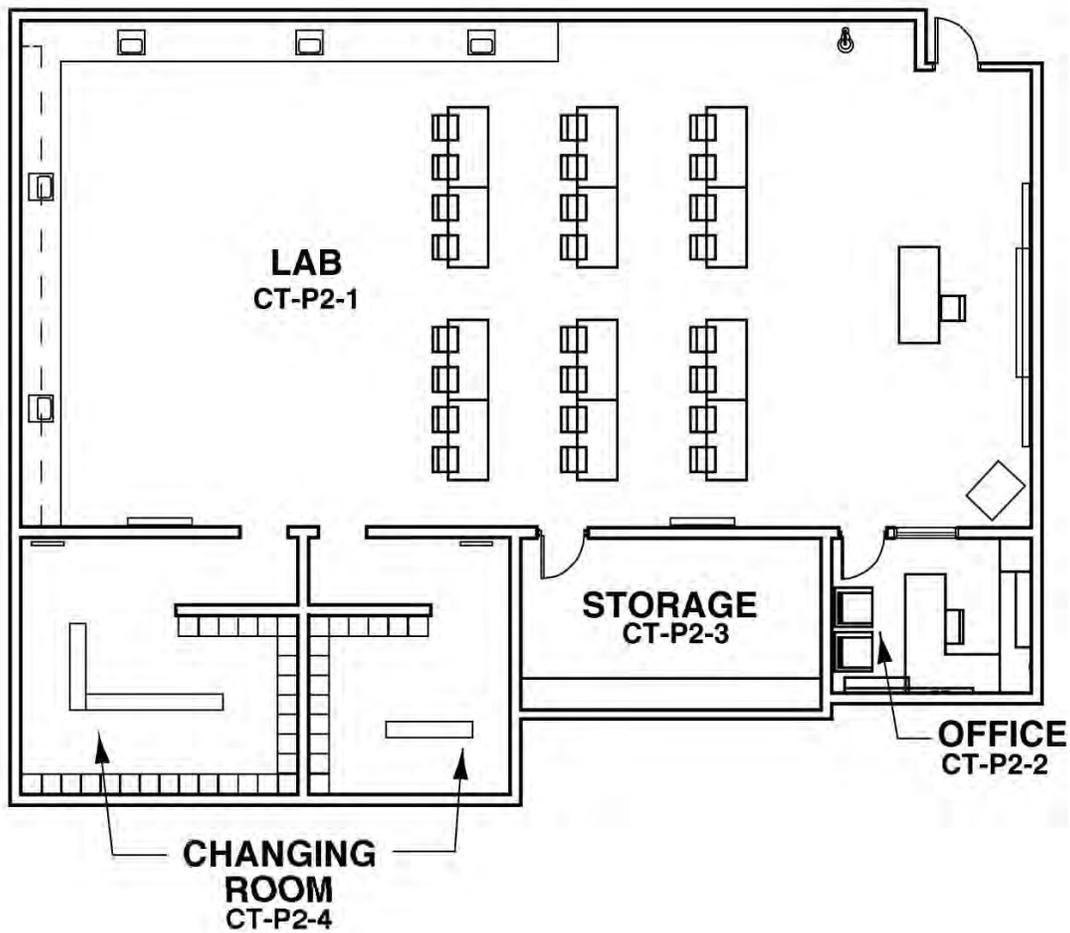
**NOTES:**

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
EXAMPLE**

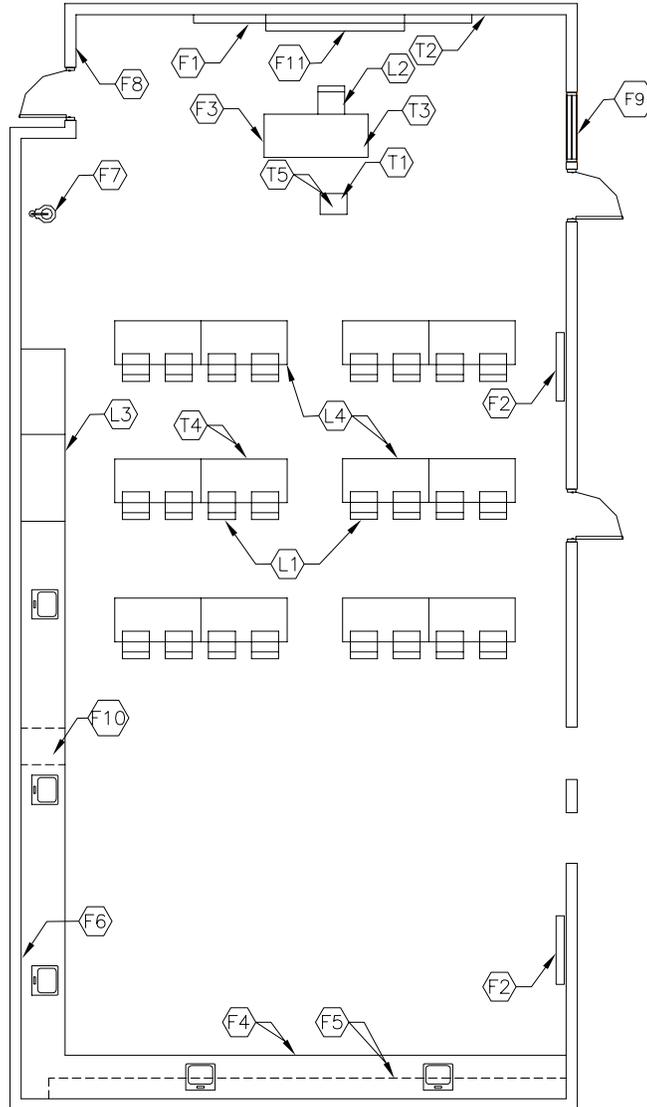


Program Type 2

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.

LAB
CT-P2-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

**ENERGY SCIENCE
PHARMACY ASSISTING
BIOTECHNOLOGY
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:	Spec. Ref.#
<u>Energy Science:</u> Utilizing industry standards and a math, science, ELA and a technology framework introduces concepts of solar, wind, fossil fuel, nuclear, geothermal, biomass, and fuel cell energy and leads to post-secondary.	
<u>Pharmacy Assisting:</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 to work in a pharmacy under the supervision of a pharmacist.	
<u>Biotechnology:</u> A tech prep program that combines classroom and laboratory experiences in the bioprocesses of organisms, cells, or their components to create products or solve problems. Program concentrates on biomedical, environmental, pharmaceutical, bioinformatics, and bioethics.	
Program Type: 2	
Size Requirements: 1,500 SF Lab	
Lab Requirements:	
	Spec. Ref #
<u>FINISHES:</u>	
Flooring:	
ET, rubber, sheet vinyl, linoleum, polished concrete finishing, or colored concrete finishing	096500 096516 033510
Optional: carpet	033519 096816
Base: Resilient	096500
Ceiling:	
Suspended acoustical	095113
Walls:	
Painted concrete masonry units	042000/ 099100
<u>LOOSE FURNISHINGS:</u>	
(12) Two-person work tables w/epoxy tops	
(24) Students chairs/stools	
(1) Teacher station & chair	
(4) Computer workstations	
Wastebasket	
Pencil sharpener	
<u>FEATURES¹:</u>	
<u>Fixed Items:</u>	
16' of chalk/marker board	101100
8' of tack board	101100
20' of sink base cabinets w/2 sinks	123550
20' of wall cabinets	123550
8' of counter (retail area)	123550
8' of counter (nurse's station)	123550
Biohazard hood	123550
Pencil sharpener support	062000
Windows with integral blinds	085113
Projection screen, 6'x8'	115213
(2) Paper towel dispensers	102813
<u>Fire Suppression:</u>	
Fire suppression system	211000
<u>Plumbing:</u>	
Plumbing connections	221116/221119/224000
<u>HVAC:</u>	
Supply/return air system	Div. 23
Independent temperature control	230923
Biohazard hood exhaust	Div. 23
<u>Electrical:</u>	
Fluorescent lighting	265100
illumination level: See Table 8600-4	
Multilevel switching	262726
6 duplex receptacles (minimum)	262726
Double duplex receptacle adjacent to each data and video port	262726
<u>Communications:</u>	
1 video port	271533/271543
1 voice port and phone	271513/273113
1 data port near teacher workstation	271513
8 data ports	271513
Clock	275313
Central sound system	275123
Sound reinforcement system	275127
Overhead projector	274119
<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.

BIOTECHNOLOGY FOR FOOD, PLANT, ANIMAL SCIENCES
ANIMAL BIOSCIENCE ▪ PLANT BIOSCIENCE
MEDICAL LABORATORY TECHNOLOGY
CRIMINAL SCIENCE TECHNOLOGY
CT-P2-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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.

AB: A life science course that applies basic animal physiology and anatomy, animal health, animal nutrition, reproductive physiology and breeding systems, genetics and animal improvement to agronomic animals, companion animals and wildlife species. This is an activity driven course with an inquiry approach, providing a meaningful and relevant application of animal biology to post-secondary fields of study and 21st century careers in agriculture, food and natural resources.

PB: A life science course focusing on plants, soils, and their interaction in the environment and economy. The course applies basic plant physiology and anatomy, plant protection and health, reproductive biology in plants, influences in bioengineering, plant nutrition and disorders to agronomic, horticultural, and native plant species. This is an activity driven course with an inquiry approach, providing a meaningful and relevant application of plant biology to post-secondary fields of study and 21st century careers in agriculture, food and natural resources.

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:**FINISHES:**

	<u>Spec.</u> <u>Ref #</u>
Flooring:	
ET, rubber, linoleum, sheet vinyl,	096500
polished concrete finishing,	096516
or colored concrete finishing	033510
	033519

Base:

Resilient	096500
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Ceiling:

Suspended acoustical	095113
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Walls:

Painted concrete masonry units	042000/ 099100
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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	
Pencil sharpener	

NOTES:

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

**BIOTECHNOLOGY FOR FOOD, PLANT, ANIMAL SCIENCES
ANIMAL BIOSCIENCE ▪ PLANT BIOSCIENCE
MEDICAL LABORATORY TECHNOLOGY
CRIMINAL SCIENCE TECHNOLOGY**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P2-1

	Spec. Ref.#
<u>FEATURES¹:</u>	
<u>Fixed Items:</u>	
F1 16' of chalk/marker board	101100
F2 8' of tack board	101100
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	062000
F9 Windows with integral blinds	085113
F10 Undercounter refrigerator	113100
F11 Projection screen, 6'x8'	115213
<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>HVAC:</u>	
Supply/return air system	Div. 23
Independent temperature control	230923
Manual exhaust	Div. 23
<u>Electrical:</u>	
Fluorescent lighting, parabolic lenses:	265100
Illumination level: See Table 8600-4	
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>Communications:</u>	
T1 1 video port	271533/271543
T2 1 voice port and phone	271513/273113
T3 1 data port at demonstration table	271513
T4 11 data ports for student use	271513
Clock	275313
Central sound system	275123
Sound reinforcement system	275127
T5 Overhead projector	274119
<u>Electronic Safety and Security:</u>	
Life safety devices per code	283111
<u>Miscellaneous:</u>	
N/A	

**COMMUNITY HEALTH AIDE
HOME HEALTH
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec.
<i>CHA: 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.</i>	<u>Fixed Items:</u>	<u>Ref.#</u>
<i>HH: 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.</i>	16' of chalk/marker board 8' of tack board 30' of sink base cabinets w/2 sinks 30' of wall cabinets Pencil sharpener support Windows with integral blinds Projection screen, 6'x8' (2) Paper towel dispensers	101100 101100 123550 123550 062000 085113 115213 102813
Program Type: 2	<u>Fire Suppression:</u>	211000
Size Requirements: 1,500 SF Lab	<u>Plumbing:</u>	
Lab Requirements:	Plumbing connections 221116/221119/224000	
<u>FINISHES:</u>	<u>HVAC:</u>	Div. 23
Flooring:	Supply/return air system Independent temperature control	230923
ET, rubber, sheet vinyl, linoleum, polished concrete finishing, or colored concrete finishing	<u>Electrical:</u>	265100
Spec. <u>Ref #</u>	Fluorescent lighting Illumination level: See Table 8600-4 Multilevel switching 6 duplex receptacles Double duplex receptacle adjacent to each data and video port	262726 262726 262726
Base:	<u>Communications:</u>	271533/271543
Resilient	1 video port 1 voice port and phone 1 data port near teacher workstation 8 data ports Clock Central sound system Sound reinforcement system Overhead projector	271513/273113 271513 271513 275313 275123 275127 274119
Ceiling:	<u>Electronic Safety and Security:</u>	283111
Suspended acoustical	Life safety devices per code	
Walls:	<u>Miscellaneous:</u>	
Painted concrete masonry units	N/A	
042000/ 099100	<u>Electronic Safety and Security:</u>	
<u>LOOSE FURNISHINGS:</u>	<u>Electronic Safety and Security:</u>	
(12) Two-person work tables (24) Students chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener	<u>Electronic Safety and Security:</u>	

NOTES:

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

**DENTAL LABORATORY TECHNOLOGY
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec. Ref.#
<i>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.</i>	<u>Fixed Items:</u>	
	16' of chalk/marker board	101100
	8' of tack board	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	062000
	Windows with integral blinds	085113
	Projection screen, 6'x8'	115213
Program Type: 2	<u>Fire Suppression:</u>	
Size Requirements: 1,500 SF Lab	Fire suppression system	211000
Lab Requirements:	<u>Plumbing:</u>	
	Plumbing connections	221116/221119/224000
	Safety shower/eyewash connections	224000
	Master shut-off for gas	226313
	Gas connections	226313
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Grinding machine ventilation	Div. 23
	Localized ventilation for specific lab-produced fumes	Div. 23
	<u>Electrical:</u>	
	Fluorescent lighting, parabolic lenses:	265100
	Illumination level: See Table 8600-4	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	<u>Communications:</u>	
	1 video port	271533/271543
	1 voice port and phone	271513/273113
	8 data ports	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
	Overhead projector	274119
	<u>Electronic Safety and Security:</u>	
	Life safety devices per code	283111
	<u>Miscellaneous:</u>	
	N/A	
<u>FINISHES:</u>	Spec. Ref #	
<u>Flooring:</u>		
ET, rubber, linoleum, sheet vinyl,	096500	
polished concrete finishing,	096516	
or colored concrete finishing	033510 033519	
<u>Base:</u>		
Resilient	096500	
<u>Ceiling:</u>		
Suspended acoustical	095113	
<u>Walls:</u>		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(24) Student stools/chairs		
(1) Teacher chair or stool		
(6) 4-person work tables with epoxy tops with gas and electric		
Wastebasket		
Pencil sharpener		

NOTES:

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

**EMERGENCY MEDICAL TECHNICIAN
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> <i>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.</i></p>	<p><u>FEATURES¹:</u> <u>Fixed Items:</u></p> <table border="0"> <tr><td>16' of chalk/marker board</td><td>101100</td></tr> <tr><td>8' of tack board</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</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>	16' of chalk/marker board	101100	8' of tack board	101100	30' of sink base cabinets w/2 sinks	123550	30' of wall cabinets	123550	Pencil sharpener support	062000	Windows with integral blinds	085113	Projection screen, 6'x8'	115213	(2) Paper towel dispensers	102813	<p>Spec. <u>Ref.#</u></p>
16' of chalk/marker board	101100																	
8' of tack board	101100																	
30' of sink base cabinets w/2 sinks	123550																	
30' of wall cabinets	123550																	
Pencil sharpener support	062000																	
Windows with integral blinds	085113																	
Projection screen, 6'x8'	115213																	
(2) Paper towel dispensers	102813																	
<p>Program Type: 2</p>	<p><u>Fire Suppression:</u> Fire suppression system 211000</p>																	
<p>Size Requirements: 1,500 SF Lab</p>	<p><u>Plumbing:</u> Plumbing connections 221116/221119/224000</p>																	
<p>Lab Requirements:</p>	<p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923</p>																	
<p><u>FINISHES:</u> Flooring:</p> <table border="0"> <tr><td>ET, rubber, sheet vinyl, linoleum,</td><td>096500</td></tr> <tr><td>polished concrete finishing,</td><td>096516</td></tr> <tr><td>or colored concrete finishing</td><td>033510</td></tr> <tr><td>Optional: carpet</td><td>033519</td></tr> <tr><td></td><td>096816</td></tr> </table>	ET, rubber, sheet vinyl, linoleum,	096500	polished concrete finishing,	096516	or colored concrete finishing	033510	Optional: carpet	033519		096816	<p><u>Electrical:</u> 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</p>	<p>Spec. <u>Ref #</u></p>						
ET, rubber, sheet vinyl, linoleum,	096500																	
polished concrete finishing,	096516																	
or colored concrete finishing	033510																	
Optional: carpet	033519																	
	096816																	
<p>Base: Resilient 096500</p>	<p><u>Communications:</u> 1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 Overhead projector 274119</p>																	
<p>Ceiling: Suspended acoustical 095113</p>	<p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p>																	
<p>Walls: Painted concrete masonry units 042000/ 099100</p>	<p><u>Miscellaneous:</u> N/A</p>																	
<p><u>LOOSE FURNISHINGS:</u> (12) Two-person work tables (24) Students chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener</p>																		

NOTES:

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

EXERCISE SCIENCE/SPORTS & RECREATION HEALTH CARE

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P2-1

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec.
Utilizing business and industry technical standards and math, science, ELA, and technology framework in the study of organ systems, study of movement & 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.	<u>Fixed Items:</u>	<u>Ref.#</u>
Program Type: 2	16' of chalk/marker board 101100	
Size Requirements: 1,500 SF Lab	8' of tack board 101100	
Lab Requirements:	30' of sink base cabinets w/2 sinks 123550	
<u>FINISHES:</u>	30' of wall cabinets 123550	
Flooring:	Pencil sharpener support 062000	
ET, rubber, sheet vinyl, linoleum, 096500	Windows with integral blinds 085113	
polished concrete finishing, 096516	Projection screen, 6'x8' 115213	
or colored concrete finishing 033510	(2) Paper towel dispensers 102813	
Optional: carpet 033519	<u>Fire Suppression:</u>	
096816	Fire suppression system 211000	
Base:	<u>Plumbing:</u>	
Resilient 096500	Plumbing connections	
Ceiling:	221116/221119/224000	
Suspended acoustical 095113	<u>HVAC:</u>	
Walls:	Supply/return air system Div. 23	
Painted concrete masonry units 042000/	Independent temperature control 230923	
099100	<u>Electrical:</u>	
<u>LOOSE FURNISHINGS:</u>	Fluorescent lighting 265100	
(10) Training tables	Illumination level: See Table 8600-4	
(24) Students chairs/stools	Multilevel switching 262726	
(1) Teacher station & chair	6 duplex receptacles 262726	
Wastebasket	Double duplex receptacle adjacent to	
Pencil sharpener	each data and video port 262726	
	<u>Communications:</u>	
	1 video port 271533/271543	
	1 voice port and phone 271513/273113	
	1 data port near teacher workstation 271513	
	8 data ports 271513	
	Clock 275313	
	Central sound system 275123	
	Sound reinforcement system 275127	
	Overhead projector 274119	
	<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.

**HEALTH SUPPORT PATHWAY
THERAPEUTIC PATHWAY
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> <i>HSP: 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.</i> <i>TP: 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.</i></p> <p>Program Type: 2</p> <p>Size Requirements: 1,500 SF Lab</p> <p>Lab Requirements:</p> <p><u>FINISHES:</u> Spec. Ref # Flooring: ET, rubber, sheet vinyl, linoleum 096500 polished concrete finishing, 096516 or colored concrete finishing 033510 033519</p> <p>Base: Resilient 096500</p> <p>Ceiling: Suspended acoustical 095113</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p>	<p><u>FEATURES¹:</u> Spec. Ref.# Fixed Items: 16' of chalk/marker board 101100 8' of tack board 101100 30' of sink base cabinets w/2 sinks 123550 30' of wall cabinets 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Projection screen, 6'x8' 115213 (2) Paper towel dispensers 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 8600-4 Multilevel switching 262726 6 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726</p> <p><u>Communications:</u> 1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 Overhead projector 274119</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p> <p><u>LOOSE FURNISHINGS:</u> (12) Two-person work tables (24) Students chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener</p>
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NOTES:

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

**HEALTH INFORMATION MANAGEMENT SERVICES
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:**FINISHES:****Flooring:**

ET, rubber, linoleum, sheet vinyl,	096500
polished concrete finishing,	096516
or colored concrete finishing	033510
	033519

Base:

Resilient	096500
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Ceiling:

Suspended acoustical	095113
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Walls:

Painted concrete masonry units	042000/ 099100
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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	
Pencil sharpener	

FEATURES¹:**Fixed Items:**

F1	16' of chalk/marker board	101100
F2	8' of tack board	101100
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	224000
F8	Pencil sharpener support	062000
F9	Windows with integral blinds	085113
F10	Undercounter refrigerator	113100
F11	Projection screen, 6'x8'	115213

Fire Suppression:

Fire suppression system	211000
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Plumbing:

Plumbing connections	221116/221119/224000
Safety shower/eyewash connections	224000
Master shut-off for gas	226313
Gas connections	226313

HVAC:

Supply/return air system	Div. 23
Independent temperature control	230923
Manual exhaust	Div. 23

Electrical:

Fluorescent lighting, parabolic lenses:	265100
Illumination level: See Table 8600-4	
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

Communications:

T1	1 video port	271533/271543
T2	1 voice port and phone	271513/273113
T3	1 data port at demonstration table	271513
T4	11 data ports for student use	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
T5	Overhead projector	274119

Electronic Safety and Security:

Life safety devices per code	283111
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Miscellaneous: N/A**NOTES:**

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

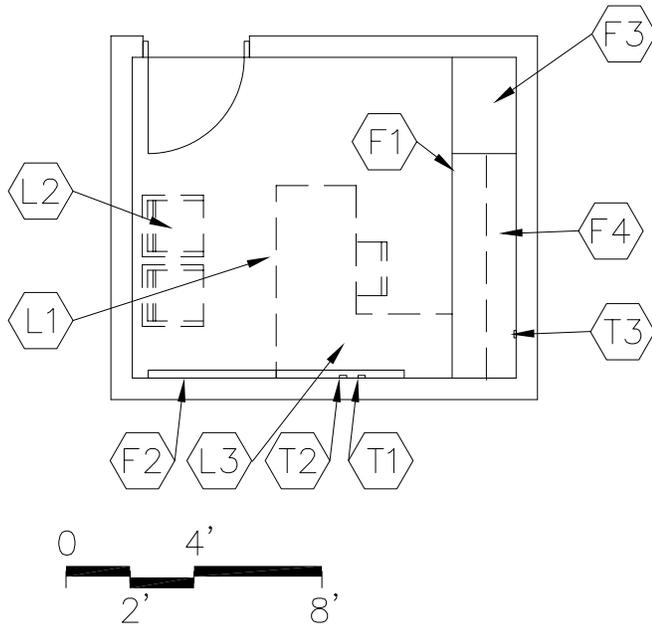
**PRACTICAL NURSING
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> 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>Program Type: 2</p> <p>Size Requirements: 1,500 SF Lab</p> <p>Lab Requirements:</p> <table border="0"> <tr> <td></td> <td style="text-align: right;">Spec.</td> </tr> <tr> <td><u>FINISHES:</u></td> <td style="text-align: right;"><u>Ref #</u></td> </tr> <tr> <td>Flooring:</td> <td></td> </tr> <tr> <td>ET, rubber,</td> <td style="text-align: right;">096500</td> </tr> <tr> <td>sheet vinyl, or linoleum</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 style="text-align: right;">042000/ 099100</td> </tr> <tr> <td><u>LOOSE FURNISHINGS:</u></td> <td></td> </tr> <tr> <td>(12) Two-person work tables</td> <td></td> </tr> <tr> <td>(24) Students chairs/stools</td> <td></td> </tr> <tr> <td>(1) Teacher station & chair</td> <td></td> </tr> <tr> <td>Wastebasket</td> <td></td> </tr> <tr> <td>Pencil sharpener</td> <td></td> </tr> </table>		Spec.	<u>FINISHES:</u>	<u>Ref #</u>	Flooring:		ET, rubber,	096500	sheet vinyl, or linoleum	096516	Base:		Resilient	096500	Ceiling:		Suspended acoustical	095113	Walls:		Painted concrete masonry units	042000/ 099100	<u>LOOSE FURNISHINGS:</u>		(12) Two-person work tables		(24) Students chairs/stools		(1) Teacher station & chair		Wastebasket		Pencil sharpener		<p style="text-align: right;">Spec. <u>Ref.#</u></p> <p><u>FEATURES¹:</u></p> <p><u>Fixed Items:</u></p> <table border="0"> <tr> <td>16' of chalk/marker board</td> <td style="text-align: right;">101100</td> </tr> <tr> <td>8' of tack board</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</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: 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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 video port	271533/271543	1 voice port and phone	271513/273113	1 data port near teacher workstation	271513	8 data ports	271513	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	Overhead projector	274119	Life safety devices per code	283111
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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.***



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:

- Uniform lighting
- 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**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
Base:		F2 4' of tack board or tackable wall surface	101100
Resilient base	096500	F3 2' of tall wardrobe	123550
Ceiling:		F4 Wall cabinets above work surface	123550
Suspended, acoustical	095113	<u>Fire Suppression:</u>	
Walls:		Fire suppression system	211000
Painted gypsum wallboard over metal studs	092116/099100	<u>Plumbing:</u>	
<u>LOOSE FURNISHINGS:</u>		N/A	
L1 Desk and chair		<u>HVAC:</u>	
L2 Visitor chairs		Supply/return air system	Div. 23
L3 Computer desk return Wastebasket		Independent temperature control	230923
		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		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:

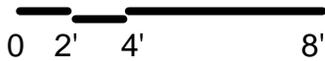
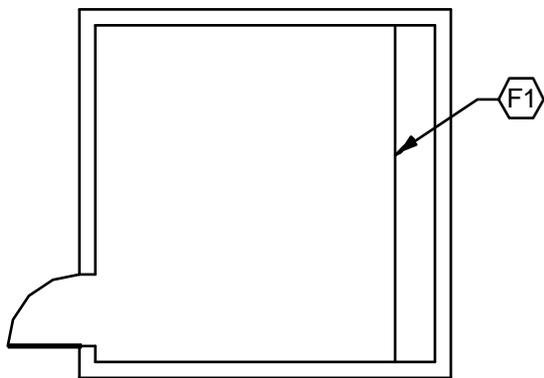
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

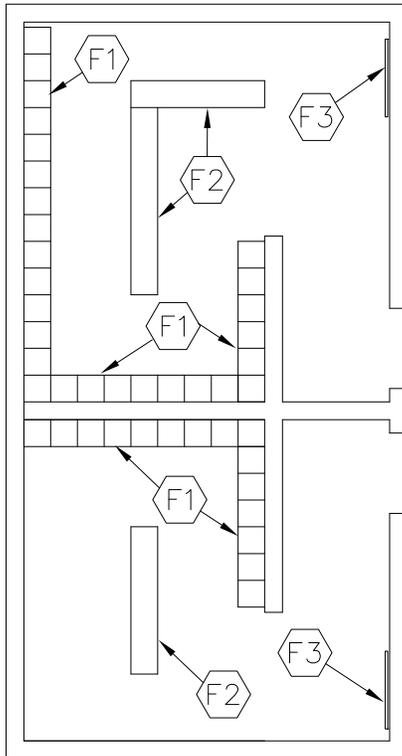
NOTES:

**STORAGE AREA
CT-P2-3**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
<i>Cure and seal</i> 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 8600-4	
		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.



50 total lockers

CAPACITY:
SIZE:

N/A
450 SF

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:

- Uniform lighting
- 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.

**CHANGING ROOM
CT-P2-4**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Polished concrete finishing, or colored concrete finishing	033510	F1 Student lockers	105113
Optional: linoleum or rubber	033519	F2 Locker benches	062000
	096500	F3 24" x 60" mirror	102813
	096516		
<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 8600-4	
		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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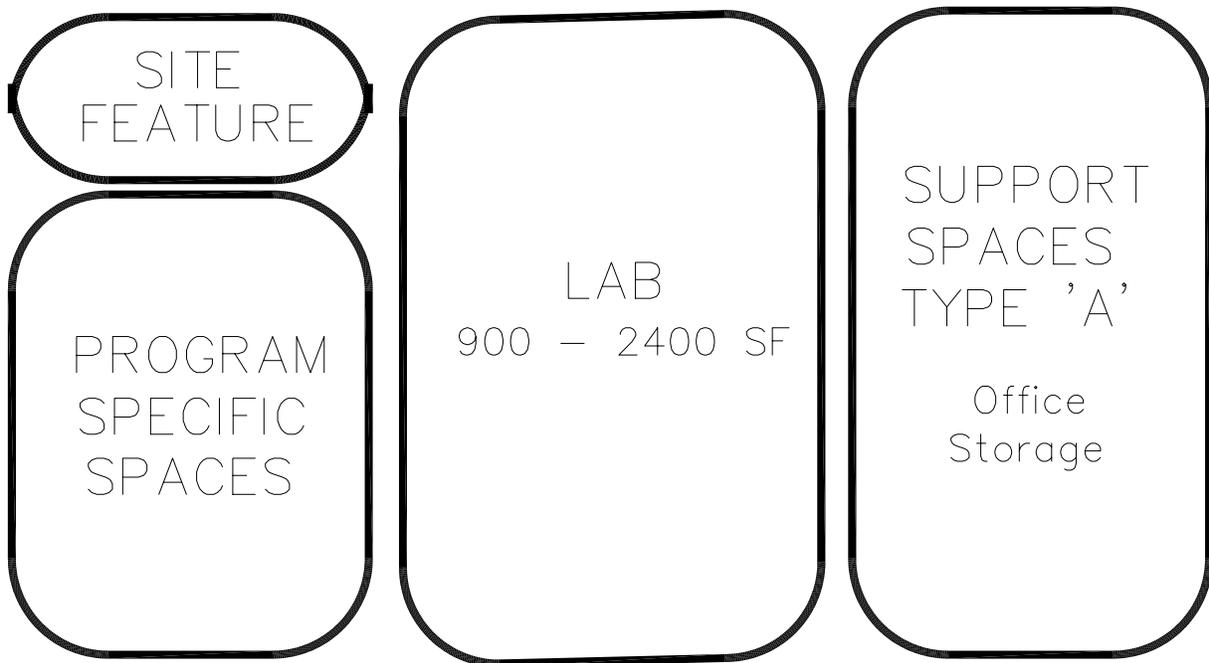
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Program Type 3

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.

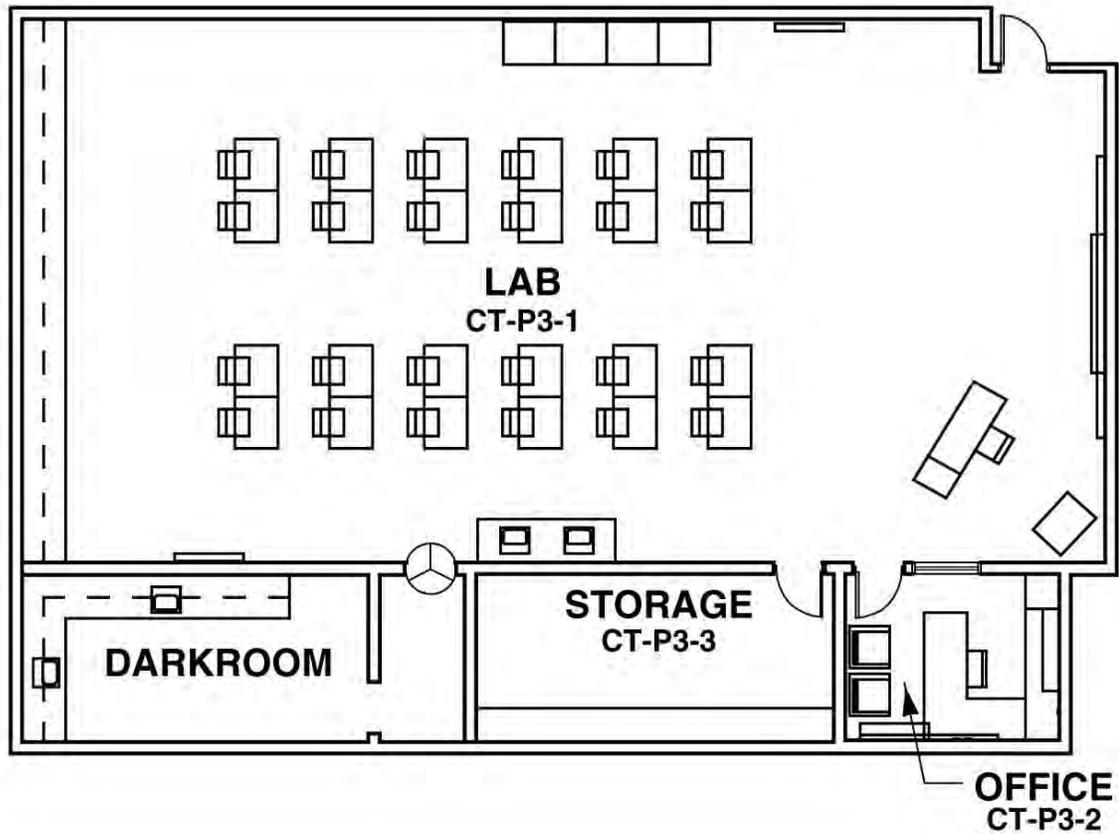
**NOTES:**

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
EXAMPLE**

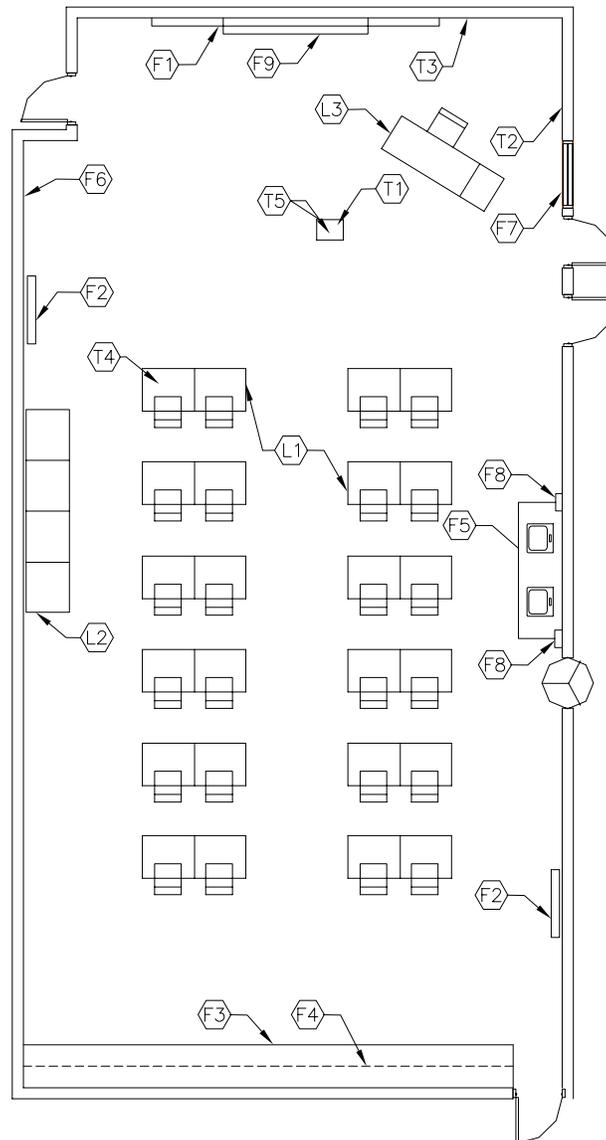


Program Type 3

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.

LAB
CT-P1-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

**EARLY CHILDHOOD EDUCATION AND CARE
CT-P3-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec. Ref.#
<i>Preparation for employment in childcare services, child development, and early childhood education within the childcare and guidance industries.</i>	<u>Fixed Items:</u>	
	16' of chalk/marker board	101100
	16' of tack board	101100
	30' of wall cabinets	123550
	30' of sink base cabinets with 1 sink	123550
	10' of reception counter	123550
	10' of toddler height sink base cabinets with 1 sink	123550
Program Type: 3	Pencil sharpener support	062000
Size Requirements: 1,500 SF Lab	Windows with integral blinds	085113
	(2) Paper towel dispensers	102813
Lab Requirements:	Projection screen, 6'x8'	115213
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
<u>FINISHES:</u>	<u>Plumbing:</u>	
<u>Flooring:</u>	Plumbing connections	221116/221119/224000
30% Carpet	Toddler height drinking fountain	224000
70% ET, sheet vinyl, or linoleum		
	<u>HVAC:</u>	
Base:	Supply/return air system	Div. 23
Resilient	Independent temperature control	230923
Ceiling:	<u>Electrical:</u>	
Suspended acoustical	Fluorescent lighting	265100
	Illumination level: See Table 8600-4	
Walls:	Multilevel switching	262726
Painted concrete masonry units	10 duplex receptacles	262726
	Double duplex receptacle adjacent to each data and video port	262726
	<u>Communications:</u>	
	1 video port	271533/271543
	1 voice port and phone	271513/273113
	8 data ports	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
	Overhead projector	274119
<u>LOOSE FURNISHINGS:</u>	<u>Electronic Safety and Security:</u>	
Wastebasket	Life safety devices per code	283111
Pencil sharpener	<u>Miscellaneous:</u>	
	N/A	

NOTES:

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

EARLY CHILDHOOD EDUCATION AND CARE
CT-P3-1 CHAPTER 6: CAREER-TECHNICAL SCHOOL

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.

EARLY CHILDHOOD EDUCATION AND CARE
Infants Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	700 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
ET, sheet vinyl or linoleum at sink	096500 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		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<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
		20' of tack board 101100
		8' of chalk/marker board 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 8600-4
		Multilevel switching 262726
		10 duplex receptacles 262726
		Double duplex receptacle adjacent to each data and video port 262726
		<u>Communications:</u>
		1 video port 271533/271543
		1 voice port and phone 271513/273113
		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.

**EARLY CHILDHOOD EDUCATION AND CARE
Kitchen/Break Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		FEATURES¹:	Spec.
Size Requirements: 350 SF		<u>Fixed Items:</u>	<u>Ref.#</u>
Requirements:		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
<u>FINISHES:</u>		<u>Fire Suppression:</u>	
Flooring:	Spec.	Fire suppression system	211000
ET, sheet vinyl, or linoleum	<u>Ref #</u>		
	096500	<u>Plumbing:</u>	
	096516	Plumbing connections	
Base:		221116/221119/224000	
Resilient	096500	<u>HVAC:</u>	
Ceiling:		Supply/return air system	Div. 23
Suspended acoustical	095113	Independent temperature control	230923
Walls:		Kitchen exhaust system	Div. 23
Painted concrete masonry units	042000/ 099100	<u>Electrical:</u>	
<u>LOOSE FURNISHINGS:</u>		Fluorescent lighting	265100
2 Work tables		Illumination level: See Table 8600-4	
Staff table and chairs		Single level switching	262726
Refrigerator/freezer		4 duplex receptacles	262726
Range and oven		<u>Communications:</u>	
Microwave		1 voice port and phone	271513/273113
Dishwasher		Central sound system	275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		Clock	275313
▪ Wall minimum STC 50		<u>Electronic Safety and Security:</u>	
▪ Ceiling minimum CAC 35, NRC 0.70		Life safety devices per code	283111
▪ Uniform lighting with 80% visual comfort probability level		<u>Miscellaneous:</u>	
		N/A	

NOTES:

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

**EARLY CHILDHOOD EDUCATION AND CARE
Work Room**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	150 SF	
Requirements:		
FINISHES:	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	
LOOSE FURNISHINGS:		
Wastebasket		
ENVIRONMENTAL CONSIDERATIONS:		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		Fixed Items:
		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
		Fire Suppression:
		Fire suppression system 211000
		Plumbing:
		Plumbing connections 221116/221119/224000
		HVAC:
		Supply/return air system Div. 23
		Independent temperature control 230923
		Electrical:
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Communications:
		1 voice port and phone 271513/273113
		Central sound system 275123
		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.

**EARLY CHILDHOOD EDUCATION AND CARE
Toddler Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	60 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Rubber, linoleum, ET, or	096500	
sheet vinyl	096516	
Optional: ceramic mosaic tile,	093000	
porcelain tile base, or	096723	
resinous flooring		
Base:		
Resilient	096500	
Optional 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		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</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
		Baby changing station 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Toddler height sink
		Toddler height toilet
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Exhaust air system Div. 23
		Supplemental heat as required Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 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.

EARLY CHILDHOOD EDUCATION AND CARE Reception

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	500 SF	
Requirements:		
<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		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</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 8600-4
		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.

**ENTREPRENEURSHIP
MARKETING COMMUNICATIONS
MARKETING MANAGEMENT AND RESEARCH
CT-P3-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	Spec. Ref.#
<i>E: Preparation for starting new ventures that create, power, and change business activity – meaning new markets, new products, new production methods, and new businesses.</i>	
<i>MC: Preparation for careers that inform, remind, and/or persuade a target audience including advertising, public relations, and multimedia marketing communications.</i>	
<i>MM&R: 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.</i>	
Program Type: 3	
Size Requirements: 1,000 SF Lab – Entrepreneurship 1,000 SF Lab – Marketing Comm. 900 SF Lab – Marketing Management	
Lab Requirements:	Spec.
<u>FINISHES:</u>	<u>Ref #</u>
Flooring:	
Carpet	096816
Optional: 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>	
(24) Computer workstation furniture & chairs	
(1) Teacher station & chair	
Wastebasket	
Pencil sharpener	
<u>FEATURES¹:</u>	
<u>Fixed Items:</u>	
16' of chalk/marker board	101100
16' of tack board	101100
30' of wall cabinets	123550
30' of sink base cabinets w/1 sink	123550
Pencil sharpener support	062000
Windows with integral blinds	085113
Paper towel dispenser	102813
Projection screen, 6'x8'	115213
<u>Fire Suppression:</u>	
Fire suppression system	211000
<u>Plumbing:</u>	
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 8600-4	
Multilevel switching	262726
10 duplex receptacles (minimum)	262726
Double duplex receptacle adjacent to each data and video port	262726
<u>Communications:</u>	
T1 1 video port	271533/271543
T2 1 voice port and phone	271513/273113
T3 1 data port near teacher workstation	271513
T4 26 data ports	271513
Clock	275313
Central sound system	275123
Sound reinforcement system	275127
T5 Overhead projector	274119
<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.

**ENTREPRENEURSHIP
MARKETING COMMUNICATIONS
MARKETING MANAGEMENT AND RESEARCH
Bookstore**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	800 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
Optional: 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>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		Spec. Ref.#
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		8' of plastic laminate counter 062000
		75' of base cabinet 123550
		75' of adjustable display wall system 060565
		Interior window 088000/081113
		<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 8600-4
		Incandescent track lighting 265100
		Multilevel switching 262726
		6 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		2 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.

ENTREPRENEURSHIP
MARKETING COMMUNICATIONS
MARKETING MANAGEMENT AND RESEARCH
Display

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3			FEATURES¹:	Spec.
Size Requirements: 100 SF			Fixed Items:	Ref.#
			10' of adjustable shelving	062000
			Interior window	088000/081113
Requirements:			Fire Suppression:	
	Spec.		Fire suppression system	211000
FINISHES:	Ref #		Plumbing:	
Flooring:			N/A	
Rubber	096500		HVAC:	
Base:			Supply/return air system	Div. 23
Resilient	096500		Independent temperature control	230923
Ceiling:			Electrical:	
Suspended acoustical	095113		Fluorescent lighting	265100
Walls:			Illumination level: See Table 8600-4	
Painted concrete masonry units	042000/ 099100		Single level switching	262726
			Incandescent track lighting	265100
			Track lighting	265100
			4 duplex receptacles	262726
			Double duplex receptacle adjacent to data port	262726
LOOSE FURNISHINGS:			Communications:	
N/A			1 data port	271523
			Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:			Electronic Safety and Security:	
▪ Wall minimum STC 45			Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70			Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level			N/A	

NOTES:

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

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GROUND OPERATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P3-1

PROGRAM DESCRIPTION:		FEATURES¹:	
<i>This program is geared toward the Airport Environment and activities concerning the ground support of commercial aircraft, terminal and hanger activities.</i>		Fixed Items:	
Program Type:	3	16' of chalk/marker board	101100
Size Requirements:	1,500 SF Lab	8' of tack board	101100
Lab Requirements:		30' of wall cabinets	123550
		30' of sink base cabinets w/2 sinks	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		(2) Paper towel dispensers	102813
		Projection screen 6'x8'	115213
		Fire Suppression:	
		Fire suppression system	211000
		Plumbing:	
		Plumbing connections	221116/221119/224000
		HVAC:	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Electrical:	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		20 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		Communications:	
		1 video port	271533/271543
		1 voice port and phone	271513/273113
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Overhead projector	274119
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	
FINISHES:	Spec. Ref #		
Flooring:			
Carpet	096816		
Option: ET, sheet vinyl, or linoleum	096500		
	096516		
Base:			
Resilient	096500		
Ceiling:			
Suspended acoustical	095113		
Walls:			
Painted concrete masonry units	042000/ 099100		
LOOSE FURNISHINGS:			
(24) Student stools/chairs			
(12) 2-person work tables w/epoxy tops			
Wastebasket			
Pencil sharpener			

NOTES:

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

GROUND OPERATIONS
Reference Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#	
Program Type:	3		
Size Requirements:	150 SF		
Requirements:			
<u>FINISHES:</u>	<u>Spec. Ref #</u>	<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Carpet	096816	34' of plastic laminate counter	062000
Option: ET, sheet vinyl, or linoleum	096500 096516	27' of adjustable shelving	062000
		Interior window	088000/081113
Base:		<u>Fire Suppression:</u>	
Resilient	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
		Independent temperature control	230923
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
Student chairs		Fluorescent lighting	265100
Wastebasket		Illumination level: See Table 8600-4	
		Single level switching	262726
		2 duplex receptacles	262726
		Double duplex receptacle adjacent to each data port	262726
		<u>Communications:</u>	
		6 data ports	271513
		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Miscellaneous:</u>	
▪ Wall minimum STC 40		N/A	
▪ Ceiling minimum CAC 35			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

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

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**LODGING
CT-P3-1**

PROGRAM DESCRIPTION:		Spec. Ref.#
Educational programs in lodging prepare learners for careers in the management, marketing and operations of lodging facilities.		
Program Type:	3	
Size Requirements:	1,500 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Carpet	096816	
Optional: ET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(8) Work stations		
(24) Student stools/chairs		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
Miscellaneous:	N/A	
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
24' of wall cabinets		123550
24' of sink base cabinets w/2 sinks		123550
14' of reception counter		123550
Pencil sharpener support		062000
Windows with integral blinds		085113
(2) Paper towel dispensers		102813
(2) Garbage disposals		113100
(2) Dishwashers		113100
(2) Ovens		113100
(2) Refrigerators		113100
(2) Microwave ovens		113100
(1) Washer and Dryer		113100
Projection screen, 6'x8'		115213
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
1 Utility sink		
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Localized exhaust at laundry/ linen area and oven area		Div. 23
Electrical:		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
20 duplex receptacles		262726
Double duplex receptacle adjacent to each data and video port		262726
Communications:		
1 video port		271533/271543
1 voice port and phone		271513/273113
1 data port near teacher workstation		271513
8 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
Overhead projector		274119
Electronic Safety and Security:		
Life safety devices per code		283111

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.**

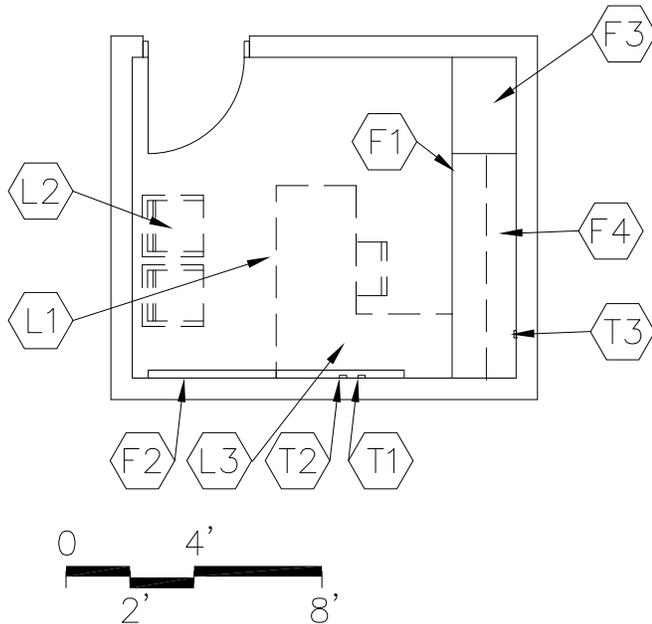
LODGING
Banquet Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	800 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
Option: 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>		
N/A		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<u>Fixed Items:</u>
		8' 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 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		2 data ports 271513
		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.



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:

- Uniform lighting
- 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**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</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 2' of 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 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271523
		T3 1 video port	271533/271543
		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:

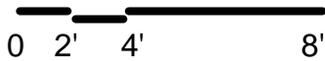
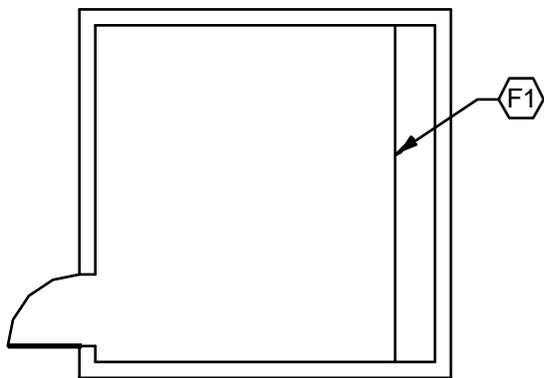
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

NOTES:

**STORAGE AREA
CT-P3-3**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Cure and seal 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 8600-4	
		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.

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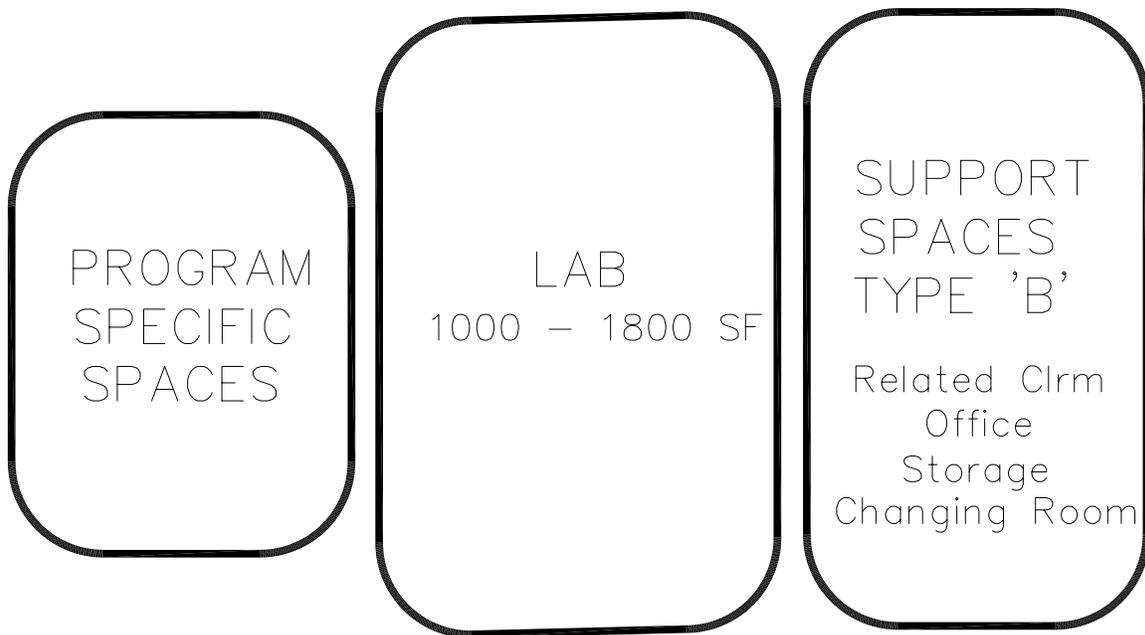
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Program Type 4

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.

**NOTES:**

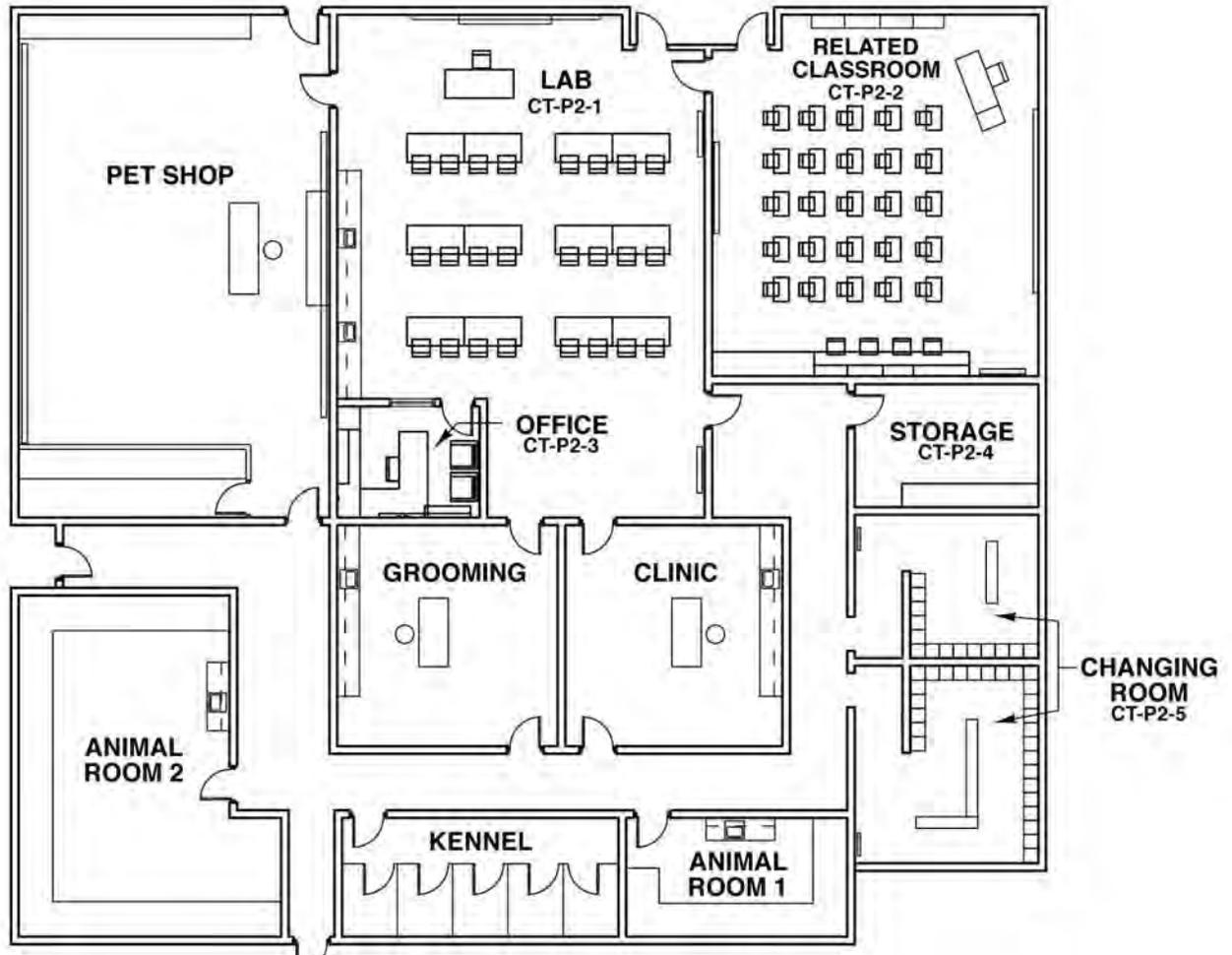
This is an example of how the Program Type 4 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

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
EXAMPLE**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

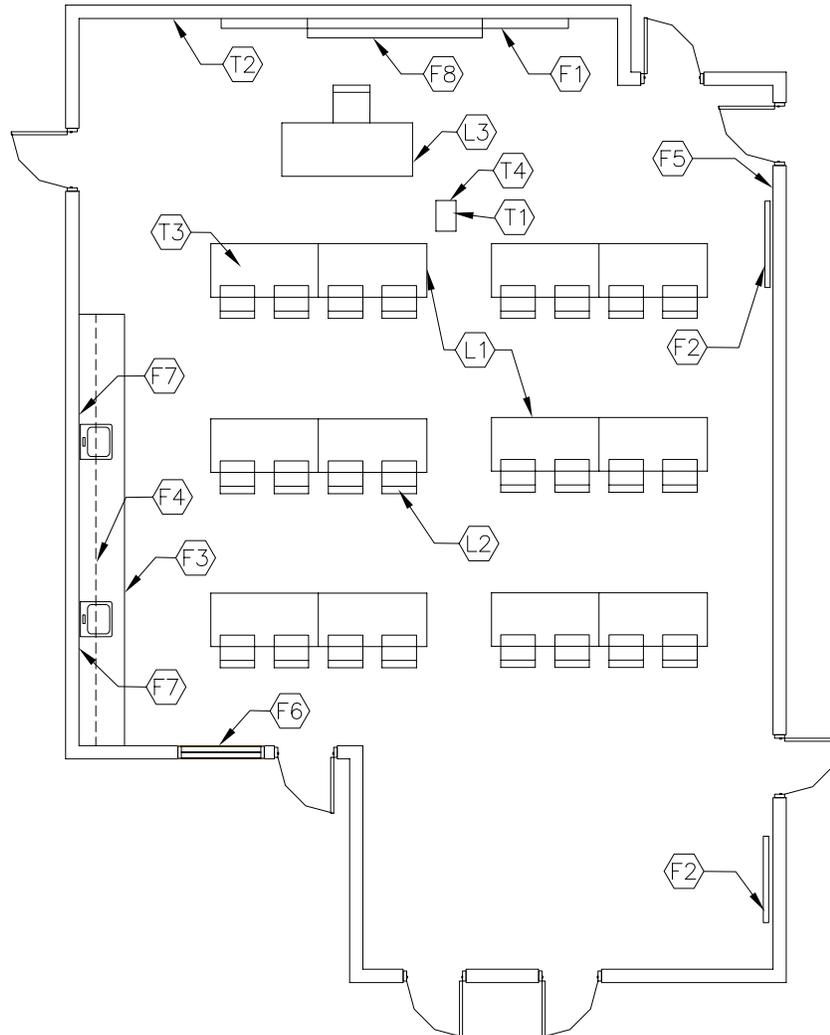


Program Type 4: Animal Science and Management (small animal)

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.

LAB
CT-P4-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P4-1

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.	
		Fixed Items:		Ref.#	
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.		F1	16' of chalk/marker board	101100	
		F2	8' of tack board	101100	
		F3	20' of sink base cabinets w/2 sinks	123550	
		F4	20' of wall cabinets	123550	
		F5	Pencil sharpener support	062000	
		F6	Windows with integral blinds	085113	
		F7	(2) Paper towel dispenser	102813	
		F8	Projection screen, 6'x8'	115213	
Program Type:	4	Fire Suppression:			
Size Requirements:	1,000 SF Lab		Fire suppression system	211000	
Lab Requirements:		Plumbing:			
			Plumbing connections		
				221116/221119/224000	
			Handwashing lavatory	224000	
FINISHES:		HVAC:			
Flooring:			Supply/return air system	Div. 23	
	Vinyl composition tile,	096500	Independent temperature control	230923	
	ET, sheet vinyl, linoleum,	096516			
	polished concrete finishing,	033510			
	or colored concrete finishing	033519			
Base:			Electrical:		
	Resilient	096500	Fluorescent lighting	265100	
Ceiling:			Illumination level: See Table 8600-4		
	Suspended acoustical	095113	Multilevel switching	262726	
Walls:			10 duplex receptacles	262726	
	Painted concrete masonry units	042000/ 099100	Double duplex receptacle adjacent to each data and video port	262726	
LOOSE FURNISHINGS:		Communications:			
L1	(12) Two-person work tables		T1	1 video port	271533/271543
L2	(24) Student chairs/stools		T2	1 voice port and phone	271513/273113
L3	(1) Teacher station & chair			1 data port near teacher workstation	271513
	Wastebasket		T3	8 data ports	271513
	Pencil sharpener			Clock	275313
				Central sound system	275123
				Sound reinforcement system	275127
			T4	Overhead projector	274119
			Electronic Safety and Security:		
				Life safety devices per code	283111
			Miscellaneous:		
				N/A	
		SITE FEATURE:			
		Plan for a dog kennel if required by school curriculum requirements.			

NOTES:

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

**ANIMAL SCIENCE AND MANAGEMENT (small animal)
Pet Shop**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	1,200 SF	
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
Flooring:		
ET, 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	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		8' of counter 123550
		30' of base cabinets 123550
		60' of adjustable wall display system 060565
		Glass enclosed animal display wall 084113
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Handwashing lavatory 224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		Incandescent track lighting 265100
		9 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 voice port and phone 271513/273113
		2 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.

ANIMAL SCIENCE AND MANAGEMENT (small animal)**CHAPTER 6: CAREER-TECHNICAL SCHOOL****Clinic**

		Spec. Ref.#
Program Type:	4	
Size Requirements:	350 SF	
Requirements:		
<u>FINISHES:</u>		
Flooring:		
ET, 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	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
<u>FEATURES¹:</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
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
Plumbing connections		221116/221119/224000
<u>HVAC:</u>		
Supply/return air system		Div. 23
Independent temperature control		230923
Independent ventilation		Div. 23
<u>Electrical:</u>		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
Single level switching		262726
4 duplex receptacles		262726
Double duplex receptacle adjacent to each data port		262726
<u>Communications:</u>		
2 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.

ANIMAL SCIENCE AND MANAGEMENT (small animal)**Grooming**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	350 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, 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	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<u>Fixed Items:</u>
		15' of base cabinets w/1 sink
		15' of wall cabinets
		6' grooming island
		Paper towel dispenser
		123550 123550 123550 102813
		<u>Fire Suppression:</u>
		Fire suppression system
		211000
		<u>Plumbing:</u>
		Plumbing connections
		221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system
		Independent temperature control
		Independent ventilation
		Div. 23 230923 Div. 23
		<u>Electrical:</u>
		Fluorescent lighting
		Illumination level: See Table 8600-4
		Single level switching
		4 duplex receptacles
		Double duplex receptacle adjacent to each data port
		265100 262726 262726 262726
		<u>Communications:</u>
		2 data ports
		Clock
		Central sound system
		271513 275313 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.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Animal Room #1

		Spec. Ref.#
Program Type:	4	
Size Requirements:	200 SF	
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
Flooring:		
ET, 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	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</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
		<u>Fire Suppression:</u>
		Fire suppression system
		211000
		<u>Plumbing:</u>
		Plumbing connections
		221116/221119/224000
		Handwashing lavatory
		224000
		<u>HVAC:</u>
		Supply/return air system
		Div. 23
		Independent ventilation
		Div. 23
		<u>Electrical:</u>
		Fluorescent lighting
		265100
		Illumination level: See Table 8600-4
		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.

ANIMAL SCIENCE AND MANAGEMENT (small animal)
Animal Room #2

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	600 SF	
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
Flooring:		
ET, 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	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		6' of base cabinets w/1 sink 123550
		6' of wall cabinets 123550
		50' of animal cage shelving 062000
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Handwashing lavatory 224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		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.

**CAREER PATHS FOR THE LAW PROFESSION
CRIMINAL JUSTICE
PRIVATE SECURITY
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec.
<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>Fixed Items:</u>	<u>Ref.#</u>
<u>CJ:</u> <i>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.</i>	16' of chalk/marker board 101100 16' of tack board 101100 30' of sink base cabinets w/1 sink 123550 30' of wall cabinets 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Paper towel dispenser 102813 Projection screen, 6'x8' 115213	
<u>PS:</u> <i>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.</i>	<u>Fire Suppression:</u>	
Program Type: 4	Fire suppression system 211000	
Size Requirements: 1,200 SF Lab	<u>Plumbing:</u>	
Lab Requirements:	Plumbing connections 221116/221119/224000	
<u>FINISHES:</u>	<u>HVAC:</u>	
<u>Flooring:</u>	Supply/return air system Div. 23 Independent temperature control 230923	
Carpet 096816 Option: ET, 096500 sheet vinyl, or linoleum 096516	<u>Electrical:</u>	
Base: Resilient 096500	Fluorescent lighting 265100 Illumination level: See Table 8600-4 Multilevel switching 262726 20 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726	
Ceiling: Suspended acoustical 095113	<u>Communications:</u>	
Walls: Painted concrete masonry units 042000/ 099100	1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 Overhead projector 274119	
	<u>Electronic Safety and Security:</u>	
	Life safety devices per code 283111	
	<u>Miscellaneous:</u>	
	N/A	
	<u>LOOSE FURNISHINGS:</u>	
	(12) Two-person work tables (24) Student chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener	

NOTES:

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

**CAREER PATHS FOR THE LAW PROFESSION
CRIMINAL JUSTICE
PRIVATE SECURITY
Interrogation Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	150 SF	
Requirements:		
<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>		
(1) Table		
(4) Chairs		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		N/A
		<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 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle 262726
		adjacent to data port
		<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.

**CLINICAL HEALTH CARE SERVICES
NURSE ASSISTING
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> <i>CHCS: Combined with specialized competencies, and utilizing business and industry technical standards within a math, science, ELA, social studies and technology framework. Involves changing the health status of a patient/client over time through performance of tests or evaluations to identify the presence or absence of illness or injury that creates a picture of the health status of an individual at a single point of time.</i> <i>NA:</i> A combination of subject matter and experiences designed to prepare a person to perform routine tasks involved in the care of individuals receiving nursing service under the supervision of a nurse.</p> <p>Program Type: 4</p> <p>Size Requirements: 1,200 SF Lab</p> <p>Lab Requirements:</p> <table border="0"> <tr> <td><u>FINISHES:</u></td> <td align="right">Spec.</td> </tr> <tr> <td>Flooring:</td> <td align="right"><u>Ref #</u></td> </tr> <tr> <td>ET, sheet vinyl, or linoleum</td> <td align="right">096500</td> </tr> <tr> <td></td> <td align="right">096516</td> </tr> <tr> <td>Base:</td> <td></td> </tr> <tr> <td>Resilient</td> <td align="right">096500</td> </tr> <tr> <td>Ceiling:</td> <td></td> </tr> <tr> <td>Suspended acoustical</td> <td align="right">095113</td> </tr> <tr> <td>Walls:</td> <td></td> </tr> <tr> <td>Painted concrete masonry units</td> <td align="right">042000/ 099100</td> </tr> <tr> <td><u>LOOSE FURNISHINGS:</u></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 & chair</td> <td></td> </tr> <tr> <td>Wastebasket</td> <td></td> </tr> <tr> <td>Pencil sharpener</td> <td></td> </tr> </table>	<u>FINISHES:</u>	Spec.	Flooring:	<u>Ref #</u>	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>		(12) Two-person work tables		(24) Student chairs/stools		(1) Teacher station & chair		Wastebasket		Pencil sharpener		<p align="right">Spec. <u>Ref.#</u></p> <p><u>FEATURES¹:</u> <u>Fixed Items:</u> 16' of chalk/marker board 101100 8' of tack board 101100 40' of sink base cabinets w/3 sinks 123550 40' of wall cabinets 123550 10' of reception counter 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 (3) Paper towel dispensers 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 8600-4 Multilevel switching 262726 20 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726</p> <p><u>Communications:</u> 1 video port and video display device 271533/271543/274119 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
<u>FINISHES:</u>	Spec.																																
Flooring:	<u>Ref #</u>																																
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>																																	
(12) Two-person work tables																																	
(24) Student chairs/stools																																	
(1) Teacher station & chair																																	
Wastebasket																																	
Pencil sharpener																																	

NOTES:

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

**CLINICAL HEALTH CARE SERVICES
NURSE ASSISTING
Training Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	120 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
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		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</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 8600-4
		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.

**CLINICAL HEALTH CARE SERVICES
NURSE ASSISTING
Laundry Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	120 SF	
Requirements:		
<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>		
Clothes washer		
Electric clothes dryer		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 45		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		6' of base cabinets 123550
		6' of adjustable shelving 062000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Washer/dryer connections 224000
		<u>HVAC:</u>
		Exhaust air system Div. 23
		Supplemental heat as required Div. 23
		Dryer vent system Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<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.

**COSMETOLOGY
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> <i>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.</i></p> <p>Program Type: 4</p> <p>Size Requirements: 1,600 SF Lab</p> <p>Lab Requirements:</p> <table border="0"> <tr> <td style="width: 300px;"><u>FINISHES:</u></td> <td style="text-align: right;">Spec. Ref #</td> </tr> <tr> <td>Flooring:</td> <td></td> </tr> <tr> <td> ET, sheet vinyl, or linoleum</td> <td style="text-align: right;">096500 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 style="text-align: right;">042000/ 099100</td> </tr> <tr> <td colspan="2"> <u>LOOSE FURNISHINGS:</u></td> </tr> <tr> <td> Portable demonstration table (8'x8')</td> <td></td> </tr> <tr> <td> Coat rack</td> <td></td> </tr> <tr> <td> Wastebasket</td> <td></td> </tr> <tr> <td> Pencil sharpener</td> <td></td> </tr> </table>	<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>		Portable demonstration table (8'x8')		Coat rack		Wastebasket		Pencil sharpener		<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES¹:</u></p> <p><u>Fixed Items:</u></p> <table border="0"> <tr> <td> 8' of tack board</td> <td style="text-align: right;">101100</td> </tr> <tr> <td> 12' of base cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td> 12' of wall cabinets</td> <td style="text-align: right;">123550</td> </tr> <tr> <td> 16' of reception counter</td> <td style="text-align: right;">123550</td> </tr> <tr> <td> 8' of adjustable display shelving</td> <td style="text-align: right;">062000</td> </tr> <tr> <td> Pencil sharpener support</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> (24) Student hair stations</td> <td style="text-align: right;">123550</td> </tr> <tr> <td> (base cabinet, countertop, mirror, styling chair)</td> <td></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> 6 Hair washing sinks</td> <td style="text-align: right;">224000</td> </tr> <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> <tr> <td> Specialized ventilation for pedicure odors</td> <td style="text-align: right;">Div. 23</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> 40 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> </table> <p><u>Communications:</u></p> <table border="0"> <tr> <td> 1 video port and video display device</td> <td style="text-align: right;">271533/271543/274119</td> </tr> <tr> <td> 1 voice port and phone</td> <td style="text-align: right;">271513/273113</td> </tr> <tr> <td> 8 data ports</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> </table> <p><u>Electronic Safety and Security:</u></p> <table border="0"> <tr> <td> Life safety devices per code</td> <td style="text-align: right;">283111</td> </tr> </table> <p><u>Miscellaneous:</u></p> <p> N/A</p>	8' of tack board	101100	12' of base cabinets	123550	12' of wall cabinets	123550	16' of reception counter	123550	8' of adjustable display shelving	062000	Pencil sharpener support	062000	Windows with integral blinds	085113	(24) Student hair stations	123550	(base cabinet, countertop, mirror, styling chair)		Fire suppression system	211000	6 Hair washing sinks	224000	Plumbing connections	221116/221119/224000	Supply/return air system	Div. 23	Independent temperature control	230923	Specialized ventilation for pedicure odors	Div. 23	Fluorescent lighting	265100	Illumination level: See Table 8600-4		Multilevel switching	262726	40 duplex receptacles (minimum)	262726	Double duplex receptacle adjacent to each data and video port	262726	1 video port and video display device	271533/271543/274119	1 voice port and phone	271513/273113	8 data ports	271513	Clock	275313	Central sound system	275123	Sound reinforcement system	275127	Life safety devices per code	283111
<u>FINISHES:</u>	Spec. Ref #																																																																																		
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ET, sheet vinyl, or linoleum	096500 096516																																																																																		
Base:																																																																																			
Resilient	096500																																																																																		
Ceiling:																																																																																			
Suspended acoustical	095113																																																																																		
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8 data ports	271513																																																																																		
Clock	275313																																																																																		
Central sound system	275123																																																																																		
Sound reinforcement system	275127																																																																																		
Life safety devices per code	283111																																																																																		

NOTES:

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

COSMETOLOGY
Laundry Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	150 SF	
Requirements:		
<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>		
Clothes washer		
Electric clothes dryer		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 45		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<u>Fixed Items:</u>
		20' of base cabinets w/1 sink
		20' of adjustable shelving
		Paper towel dispenser
		123550 062000 102813
		<u>Fire Suppression:</u>
		Fire suppression system
		211000
		<u>Plumbing:</u>
		Plumbing connections
		221116/221119/224000
		Washer/dryer connections
		224000
		<u>HVAC:</u>
		Supply/return air system
		Div. 23
		Independent ventilation
		Div. 23
		Dryer vent system
		Div. 23
		<u>Electrical:</u>
		Fluorescent lighting
		265100
		Illumination level: See Table 8600-4
		Single level switching
		262726
		4 duplex receptacles
		262726
		<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.

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**COSMETOLOGY
Facial Room**

		Spec. Ref.#
Program Type:	4	
Size Requirements:	200 SF	
Requirements:		
<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, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<u>Fixed Items:</u>
		4' of base cabinets w/1 sink 123550
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent ventilation Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<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.

**CULINARY AND FOOD SERVICE OPERATIONS
CT-P4-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
Educational programs in Culinary and Food Service Operations prepare learners for careers in the art and science of food preparation and presentation.		
Program Type:	4	
Size Requirements:	1,800 SF Lab	
Lab Requirements:		
	Spec. <u>Ref #</u>	
<u>FINISHES:</u>		
Flooring:		
Quarry tile	093000	
Base:		
Quarry tile base	093000	
Ceiling:		
Cleanable, suspended acoustical	095113	
Walls:		
Epoxy painted concrete masonry units	042000/099100	
Option: ceramic wall tile	093000	
or latex paint	099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
8' of tack board		101100
Food service equipment		114000
(for new construction only)		
(3) Paper towel dispensers		102813
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
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
<u>HVAC:</u>		
Supply/return air system		Div. 23
Independent temperature control		230923
Kitchen canopy exhaust system		Div. 23
<u>Electrical:</u>		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
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
<u>Communications:</u>		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
<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.

CULINARY AND FOOD SERVICE OPERATIONS

Dry Storage

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	150 SF	
Requirements:		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Linoleum, ET, or sheet vinyl	096500	
Option: Quarry tile	093000	
	096516	
Base:		
Resilient base	096500	
Option: Quarry tile	093000	
Ceiling:		
Cleanable, suspended, acoustical	095113	
Walls:		
Epoxy-painted concrete masonry units	042000/099100	
Option: Ceramic wall tile	093000	
or latex paint	099100	
<u>LOOSE FURNISHINGS:</u>		
20' Commercial grade kitchen shelving		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
<ul style="list-style-type: none"> • Uniform lighting • Continuous conditioning of air • Cleanable building surfaces 		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
N/A		
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
N/A		
<u>HVAC:</u>		
Exhaust air system		Div. 23
Supply/return air system		Div. 23
<u>Electrical:</u>		
Single level switching		262726
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
1 duplex receptacle		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.

**DENTAL ASSISTANT
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec. Ref.#
<i>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 operatory, clerical functions, and selected dental laboratory work.</i>	<u>Fixed Items:</u>	
	16' of chalk/marker board	101100
	8' of tack board	101100
	40' of sink base cabinets w/6 sinks and natural gas	123550
	40' of wall cabinets	123550
	10' of reception counter	123550
	Pencil sharpener support	062000
	Windows with integral blinds	085113
	(6) Paper towel dispensers	102813
	Projection screen, 6'x8'	115213
Program Type: 4	<u>Fire Suppression:</u>	
Size Requirements: 1,500 SF Lab	Fire suppression system	211000
Lab Requirements:	<u>Plumbing:</u>	
	Plumbing connections	221116/221119/224000
<u>FINISHES:</u>	Natural gas connections	226313
Spec. Ref #	Master gas shut-off valve	226313
Flooring:	Safety shower/eye wash	224000
ET, sheet vinyl, or linoleum		
Base:	<u>HVAC:</u>	
Resilient	Supply/return air system	Div. 23
	Independent temperature control	230923
Ceiling:	Localized ventilation for specific lab-produced fumes	Div. 23
Suspended acoustical		
Walls:	<u>Electrical:</u>	
Painted concrete masonry units	Fluorescent lighting	265100
	Illumination level: See Table 8600-4	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
<u>LOOSE FURNISHINGS:</u>	<u>Communications:</u>	
(6) 4-person epoxy-top student tables w/electric and gas	1 video port and video display device	271533/271543/274119
(24) Student chairs/stools	1 voice port and phone	271513/273113
(1) Teacher station & chair	8 data ports	271513
Wastebasket	Clock	275313
Pencil sharpener	Central sound system	275123
	Sound reinforcement system	275127
	<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.

**DENTAL ASSISTANT
X-ray Room**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	80 SF	
Requirements:		
<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>		
(1) Chair		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		N/A
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		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 8600-4
		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.

**DENTAL ASSISTANT
Darkroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 80 SF		Fixed Items:	Ref.#
		10' of base cabinets w/1 sink	123550
		Paper towel dispenser	102813
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:		Plumbing connections	221116/221119/224000
ET, sheet vinyl, linoleum, 096500		HVAC:	
polished concrete finishing, 096516		Supply/return air system	Div. 23
or colored concrete finishing 033510		Independent temperature control	230923
033519		Electrical:	
Base:		Fluorescent lighting	265100
Resilient 096500		Illumination level: See Table 8600-4	
Ceiling:		Single level switching	262726
Suspended acoustical 095113		4 duplex receptacles	262726
Walls:		Dark room safelight	265100
Painted concrete masonry units 042000/		Communications:	
099100		Central sound system	275123
LOOSE FURNISHINGS:		Clock	275313
Wastebasket		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	
ENVIRONMENTAL CONSIDERATIONS:			
<ul style="list-style-type: none"> ▪ Wall minimum STC 45 ▪ Ceiling minimum CAC 35, NRC 0.70 ▪ Uniform lighting with 80% visual comfort probability level 			

NOTES:

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

**DIAGNOSTIC PATHWAY
CT-P4-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
<i>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.</i>		
Program Type:	4	
Size Requirements:	1,200 SF Lab	
Lab Requirements:		
<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>		
(12) Two-person work tables		
(24) Student chairs/stools		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board		101100
8' of tack board		101100
20' of sink base cabinets w/1 sink		123550
20' of wall cabinets		123550
10' of reception counter		123550
Pencil sharpener support		062000
Windows with integral blinds		085113
(1) Paper towel dispenser		102813
Projection screen, 6'x8'		115213
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
Plumbing connections		221116/221119/224000
Safety shower/eyewash		224500
<u>HVAC:</u>		
Supply/return air system		Div. 23
Independent temperature control		230923
<u>Electrical:</u>		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
20 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
<u>Communications:</u>		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
1 data port near teacher workstation		271513
8 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
<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.

**DIAGNOSTIC PATHWAY
Exam Room(s)**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4	Spec. Ref #	FEATURES¹:	Spec.
Size Requirements: 200 SF		Fixed Items: 4' of base cabinets w/1 sink per room 123550 Paper towel dispenser 102813	Ref.#
Requirements:		Fire Suppression: Fire suppression system 211000	
FINISHES:		Plumbing: Plumbing connections 221116/221119/224000	
Flooring: ET, sheet vinyl, or linoleum	096500 096516	HVAC: Supply/return air system Div. 23 Independent temperature control 230923	
Base: Resilient	096500	Electrical: Fluorescent lighting 265100 Illumination level: See Table 8600-4 Single level switching 262726 4 duplex receptacles per room 262726 Double duplex receptacle adjacent to each data port 262726	
Ceiling: Suspended acoustical	095113	Communications: 1 data port per room 271513 1 clock per room 275313 Central sound system 275123	
Walls: Painted concrete masonry units	042000/ 099100	Electronic Safety and Security: Life safety devices per code 283111	
LOOSE FURNISHINGS:		Miscellaneous: N/A	
(1) stool per room (1) wastebasket per room			
ENVIRONMENTAL CONSIDERATIONS:			
<ul style="list-style-type: none"> ▪ Wall minimum STC 48 ▪ Ceiling minimum CAC 35, NRC 0.70 ▪ Uniform lighting with 80% visual comfort probability level 			

NOTES:

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

**FIRE FIGHTER TRAINING
CT-P4-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
Specialized classroom and practical experiences concerned with the preparation of paid, full-time firefighters.		
Program Type:	4	
Size Requirements:	1,500 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
Option: 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>		
(12) Two-person work tables		
(24) Student chairs/stools		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board		101100
16' of tack board		101100
30' of sink base cabinets w/1 sink		123550
30' of wall cabinets		123550
Pencil sharpener support		062000
Windows with integral blinds		085113
Paper towel dispenser		102813
Projection screen, 6'x8'		115213
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
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 8600-4		
Multilevel switching		262726
20 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
<u>Communications:</u>		
1 video port		271533/271543
1 voice port and phone		271513/273113
1 data port near teacher workstation		271513
8 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
<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.

**FIRE FIGHTER TRAINING
Weight Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#	
Program Type:	4		
Size Requirements:	800 SF		
Requirements:			
<u>FINISHES:</u>	Spec. Ref #		
Flooring:			
ET, sheet vinyl, or linoleum	096500		
Option: Cure and seal concrete	096516 033000		
Base:			
Resilient	096500		
Ceiling:			
Suspended acoustical	095113		
Walls:			
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>			
N/A			
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
▪ Wall minimum STC 48			
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			
		<u>FEATURES¹:</u>	
		<u>Fixed Items:</u>	
		N/A	
		<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 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data port	262726
		<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.

**MEDIA ARTS
CT-P4-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
<i>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.</i>		<u>Fixed Items:</u>
		Overhead metal pipe grid (48" o.c., both ways) to support studio lights & accessories 055000
		Cyclorama curtain & track, min. of 2 walls 116143
Program Type: 4		<u>Fire Suppression:</u>
		Fire suppression system 211000
Size Requirements: 1,500 SF Lab		<u>Plumbing:</u>
		N/A
Studio Requirements:		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
<u>FINISHES:</u>		<u>Electrical:</u>
		Fluorescent lighting 265100
Flooring:		Track lighting 265100
Sheet vinyl or linoleum	Spec. Ref #	Multilevel switching 262726
	096516	20 duplex receptacles 262726
	096500	Double duplex receptacle adjacent to each data and video port 262726
Base:		Emergency lighting 265100
Resilient	096500	
Ceiling:		<u>Communications:</u>
Pipe grid – 14' to bottom	116135	1 video port 271533/271543
		1 voice port and phone 271513/273113
Walls:		2 data ports 271513
Painted concrete masonry units	042000/ 099100	Clock 275313
Acoustical wall treatment	098000	Cable management system
		Special A/V Cabling Conveyance
		Special A/V Cabling
		<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.

CHAPTER 6: CAREER-TECHNICAL SCHOOL

**MEDIA ARTS
CONTROL ROOM / EDIT**

Program Type: 4	Spec. Ref.#	<u>FEATURES:</u>	Spec. Ref.#
Size Requirements: 450 SF		<u>Fixed Items:</u>	
		10'-20' of equipment/work surface	123550
		6'-8' of tack board	101100
		Window	085113
		6'-8' marker board	101100
		8' of base cabinet	123550
<u>FINISHES</u> ¹ :	<u>Spec. Ref.#</u>	<u>Fire Suppression:</u>	
Flooring:		Fire suppression system	211000
Linoleum, ET, or sheet vinyl	096516		
	096500		
Base:		<u>Plumbing:</u>	
Resilient base	096500	N/A	
Ceiling:		<u>HVAC:</u>	
Suspended, acoustical (9'-0" high)	095113	Supply/return air system	Div. 23
		Independent temperature control	230923
Walls:		<u>Electrical:</u>	
Painted gypsum wallboard		Fluorescent lighting: overhead	265100
	092116/099100	Illumination level: See Table 8600-4	
Acoustical wall treatment	098000	Dimmable incandescent task	
		lighting on work surface	265100
		Single level switching	262726
		8 duplex receptacles	262726
		Provisions for hard-wired equipment	
			260519/260533
		Studio dimming system	
		control panel	265561
		Telecommunications Grounding	
			270526/260526
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>	
(6) Chairs		1 voice port and phone	271513/273113
Wastebasket		2 video port	271533/271543
		6 data ports	271513
		Clock	275313
		Central sound system	275123
		Specialized A/V equipment	
		<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.

MEDIA ARTS**Vestibule**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	84 SF	
Requirements:		
<u>FINISHES:</u>		
Flooring:		
ET, sheet vinyl, or linoleum	Spec. Ref # 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>		
<ul style="list-style-type: none"> ▪ Wall minimum STC 50 ▪ Ceiling minimum CAC 35, NRC 0.70 		
<u>FEATURES¹:</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.

OPTOMETRIC OCCUPATIONS**CHAPTER 6: CAREER-TECHNICAL SCHOOL****CT-P4-1**

PROGRAM DESCRIPTION:		Spec. Ref.#
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.		
Program Type:	4	
Size Requirements:	1,200 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
ET, sheet vinyl, or linoleum	096500	
	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(6) 4-person epoxy-top student tables with electric & natural gas		
(24) Student chairs/stools		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
		FEATURES¹:
		Fixed Items:
		16' of chalk/marker board 101100
		8' of tack board 101100
		30' of sink base cabinets w/2 sinks 123550
		30' of wall cabinets 123550
		Pencil sharpener support 062000
		Windows with integral blinds 085113
		(2) Paper towel dispensers 102813
		Projection screen, 6'x8' 115213
		Fume hood 115313
		Fire Suppression:
		Fire suppression system 211000
		Plumbing:
		Plumbing connections 221116/221119/224000
		12 Compressed air connections 221500
		Safety shower/eyewash 224000
		Master gas shut-off valve 226313
		HVAC:
		Supply/return air system Div. 23
		Independent temperature control 230923
		Fume hood exhaust Div. 23
		Electrical:
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles 262726
		Double duplex receptacle adjacent to each data and video port 262726
		220V service 262726
		Communications:
		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		1 data port near teacher workstation 271513
		8 data ports 271513
		Clock 275313
		Central sound system 275123
		Sound reinforcement system 275127
		Overhead projector 274119
		Electronic Safety and Security:
		Life safety devices per code 283111
		Miscellaneous:
		N/A

NOTES:

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

OPTOMETRIC OCCUPATIONS
Exam Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	100 SF	
Requirements:		
<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		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<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 8600-4
		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 271513/273113
		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.

**PATIENT CARE TECHNICIAN
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
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.		<u>Fixed Items:</u>	<u>Ref.#</u>
Program Type:	4	16' of chalk/marker board	101100
Size Requirements:	1,500 SF Lab	8' of tack board	101100
Lab Requirements:		30' of sink base cabinets w/2 sinks	123550
		30' of wall cabinets	123550
		10' of reception counter	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		(2) Paper towel dispensers	102813
		Projection screen, 6'x8'	115213
		100' of cubicle track and curtains	102123
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
<u>FINISHES:</u>		<u>Plumbing:</u>	
Spec. Ref #		Plumbing connections	
Flooring:			221116/221119/224000
ET, sheet vinyl, or linoleum	096500	<u>HVAC:</u>	
	096516	Supply/return air system	Div. 23
Base:		Independent temperature control	230923
Resilient	096500	<u>Electrical:</u>	
Ceiling:		Fluorescent lighting	265100
Suspended acoustical	095113	Illumination level: See Table 8600-4	
Walls:		Multilevel switching	262726
Painted concrete masonry units	042000/ 099100	20 duplex receptacles (minimum)	262726
<u>LOOSE FURNISHINGS:</u>		Double duplex receptacle adjacent to each data and video port	262726
(12) Two-person work tables		<u>Communications:</u>	
(24) Student chairs/stools		1 video port, monitor, and brackets	
(1) Teacher station & chair			271533/271543/274119
Wastebasket		1 voice port and phone	271513/273113
Pencil sharpener		1 data port near teacher workstation	271513
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Overhead projector	274119
		<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.

**PATIENT CARE TECHNICIAN
Training Restroom**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	120 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Rubber, linoleum, ET, or	096500	123550
sheet vinyl	096515	102813
Option: ceramic mosaic tile,	093000	102813
porcelain tile base, or	096723	102813
resinous flooring		102813
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		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</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 8600-4
		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.

**PATIENT CARE TECHNICIAN
Laundry Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	120 SF	
Requirements:		
<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>		
Clothes washer		
Electric clothes dryer		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 45		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		6' of base cabinets 123550
		6' of adjustable shelving 062000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Washer/dryer connections 224000
		<u>HVAC:</u>
		Exhaust air system Div. 23
		Supplemental heat as required Div. 23
		Dryer vent system Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<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.

**PERFORMING ARTS
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec. Ref.#
<p><i>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.</i></p> <p>Program Type: 4</p> <p>Size Requirements: 1,500 SF Dance/Music Room</p>	<u>Fixed Items:</u>	
	8' of tack board	101100
	16' length of 60" high mirrors	088300
	16' of ballet bars	116615
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	Drinking water cooler	224000
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
Independent temperature control	230923	
	<u>Electrical:</u>	
	Fluorescent lighting	265100
	Illumination level: See Table 8600-4	
	Track lighting	265100
	Multilevel switching	262726
	10 duplex receptacles	262726
	Double duplex receptacle adjacent to each data and video port	262726
	<u>Communications:</u>	
	1 video port	271533/271543
	1 voice port and phone	271513/273113
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275125
	<u>Electronic Safety and Security:</u>	
	Life safety devices per code	283111
	<u>Miscellaneous:</u>	
	N/A	
<u>FINISHES:</u>	Spec. Ref #	
<u>Flooring:</u>		
Hardwood	096000	
<u>Base:</u>		
Resilient	096500	
<u>Ceiling:</u>		
Painted, exposed structure	099100	
<u>Walls:</u>		
Painted concrete masonry units	042000/ 099100	
Acoustical wall treatment	098000	
<u>LOOSE FURNISHINGS:</u>		
(25) Student stools/chairs		

NOTES:

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

**PERFORMING ARTS
Practice Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	150 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, sheet vinyl, or linoleum	096500	
	096516	
Optional: carpet	096816	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Absorptive 25%, reflective 25%, diffusive 50%		
Walls:		
Painted concrete masonry units	042000/ 099100	
Acoustical wall treatment (varies with geometry of room)	098000	
<u>LOOSE FURNISHINGS:</u>		
L1 Music Stands		
L2 Music chairs		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		N/A
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		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 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<u>Communications:</u>
		1 voice port and phone 271513/273113
		Central sound system 275123
		Clock 275313
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		Interior window 081113/088000

NOTES:

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

**SURGICAL TECHNOLOGY
CT-P4-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
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.		
Program Type:	4	
Size Requirements:	1,000 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>	Spec. <u>Ref #</u>	
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>		
(12) Two-person work tables		
(24) Student chairs/stools		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		20' of sink base cabinets w/1 sink 123550
		20' of wall cabinets 123550
		Pencil sharpener support 062000
		Windows with integral blinds 085113
		Paper towel dispenser 102813
		Projection screen, 6'x8' 115213
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		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 8600-4
		Multilevel switching 262726
		10 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data and video port 262726
		<u>Communications:</u>
		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		1 data port near teacher workstation 271513
		8 data ports 271513
		Clock 275313
		Central sound system 275123
		Sound reinforcement system 275127
		<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.

**SURGICAL TECHNOLOGY
Scrub Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	500 SF	
Requirements:		
<u>FINISHES:</u>		
Flooring:		
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 45		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
6' of base cabinets		123550
6' of wall cabinets		123550
Paper towel dispenser		102813
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
2 scrub sinks		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 8600-4		
Single level switching		262726
6 duplex receptacles		262726
<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		

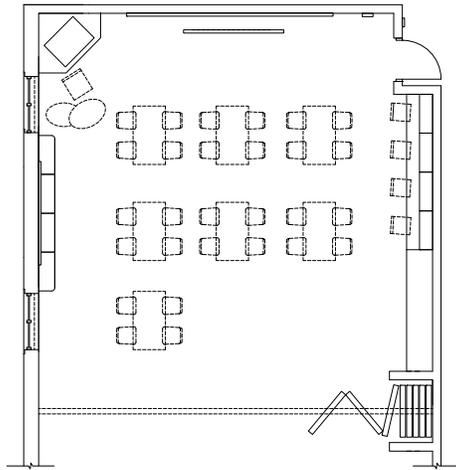
NOTES:

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

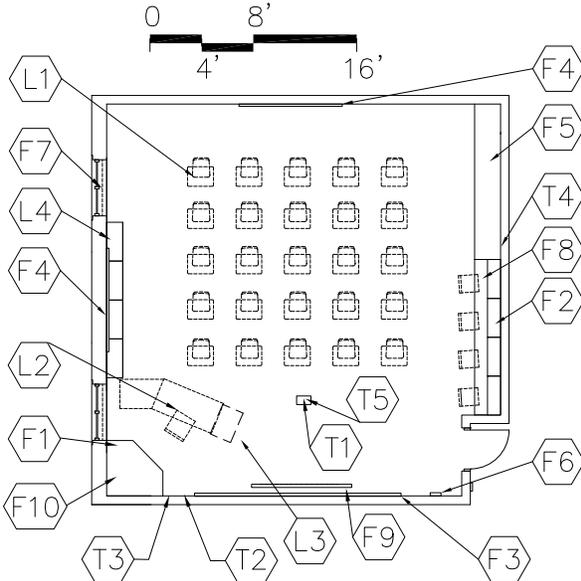
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RELATED CLASSROOM CT-P4-2

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
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:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC 0.70

NOTES:

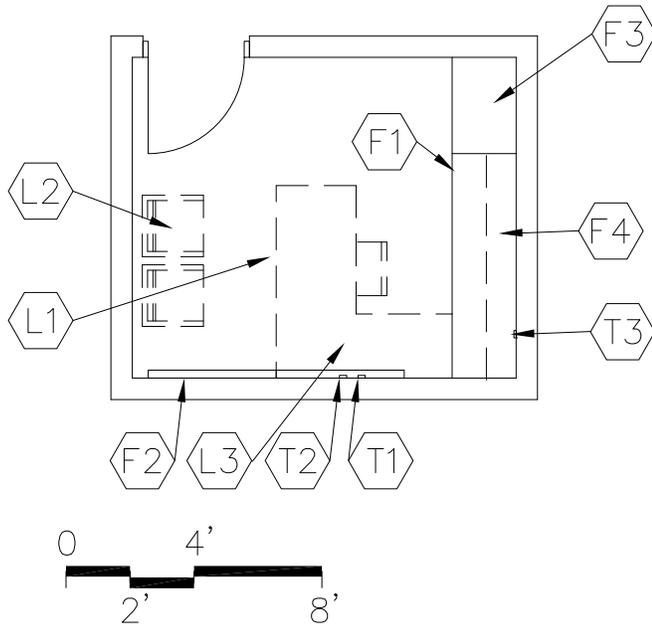
1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

**RELATED CLASSROOM
CT-P4-2**
CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet	096816	F1 3' of tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500	F2 Computer work surface (could be loose)	123550
<u>Base:</u>		F3 10'-16' of chalk/marker board	101100
Resilient base	096500	F4 10'-16' of tack board	101100
<u>Ceiling:</u>		F5 8'-12' of base & wall cabinets	123550
Suspended, acoustical	095113	F6 Pencil sharpener support	062000
<u>Walls:</u>		F7 Windows with integral blinds	085113
Painted concrete masonry units	042000/099100	F8 About 10' of wall cabinets	123550
		F9 Projection screen (optional)	115213
		F10 Technology support casework	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 8600-4	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 video port	271533/271543
		T2 1 voice port and phone	271513/273113
		T3 1 data port near teacher workstation	271513
		T4 4 data ports (minimum) for student use	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		T5 Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		M1 Operable partitions between classrooms are optional	102226

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.



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:

- Uniform lighting
- 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**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</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 2' of 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 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		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:

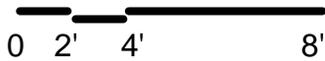
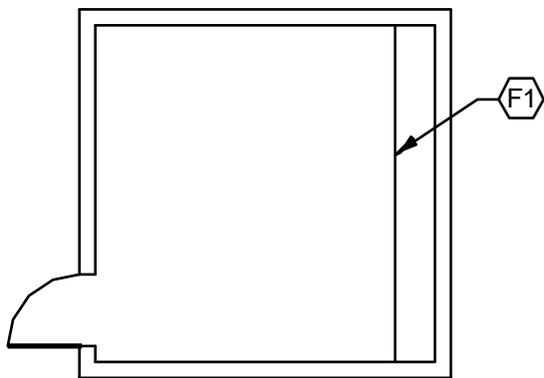
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

NOTES:

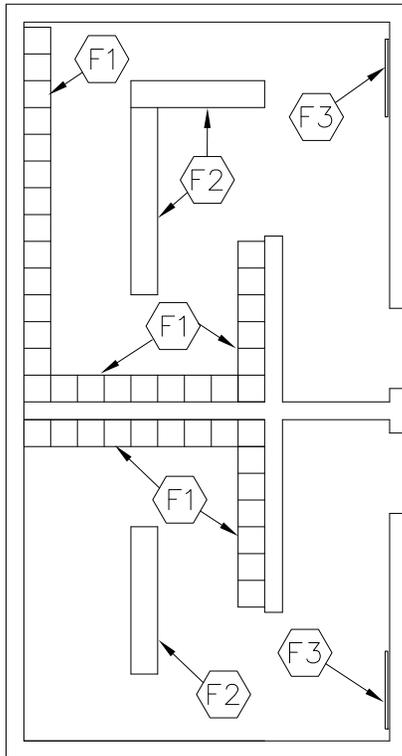
**STORAGE AREA
CT-P4-4**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Cure and seal 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 8600-4	
		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.



50 total lockers

CAPACITY:
SIZE:

N/A
450 SF

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:

- Uniform lighting
- 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.

**CHANGING ROOM
CT-P4-5**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Polished concrete finishing, or colored concrete finishing	033510	F1 Student lockers	105113
Optional: linoleum or rubber	033519	F2 Locker benches	062000
	096500	F3 24" x 60" mirror	102813
	096516		
<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 8600-4	
		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

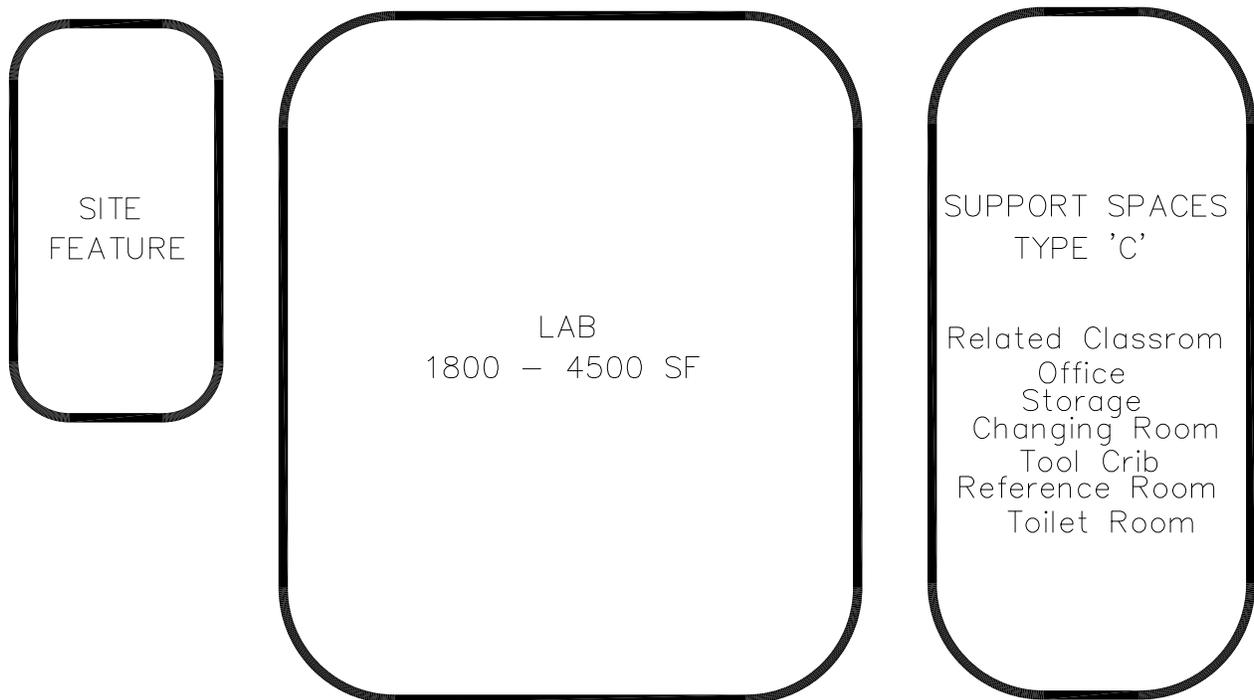
Description: Medium to large sized lab space with enhanced support space.

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.

**NOTES:**

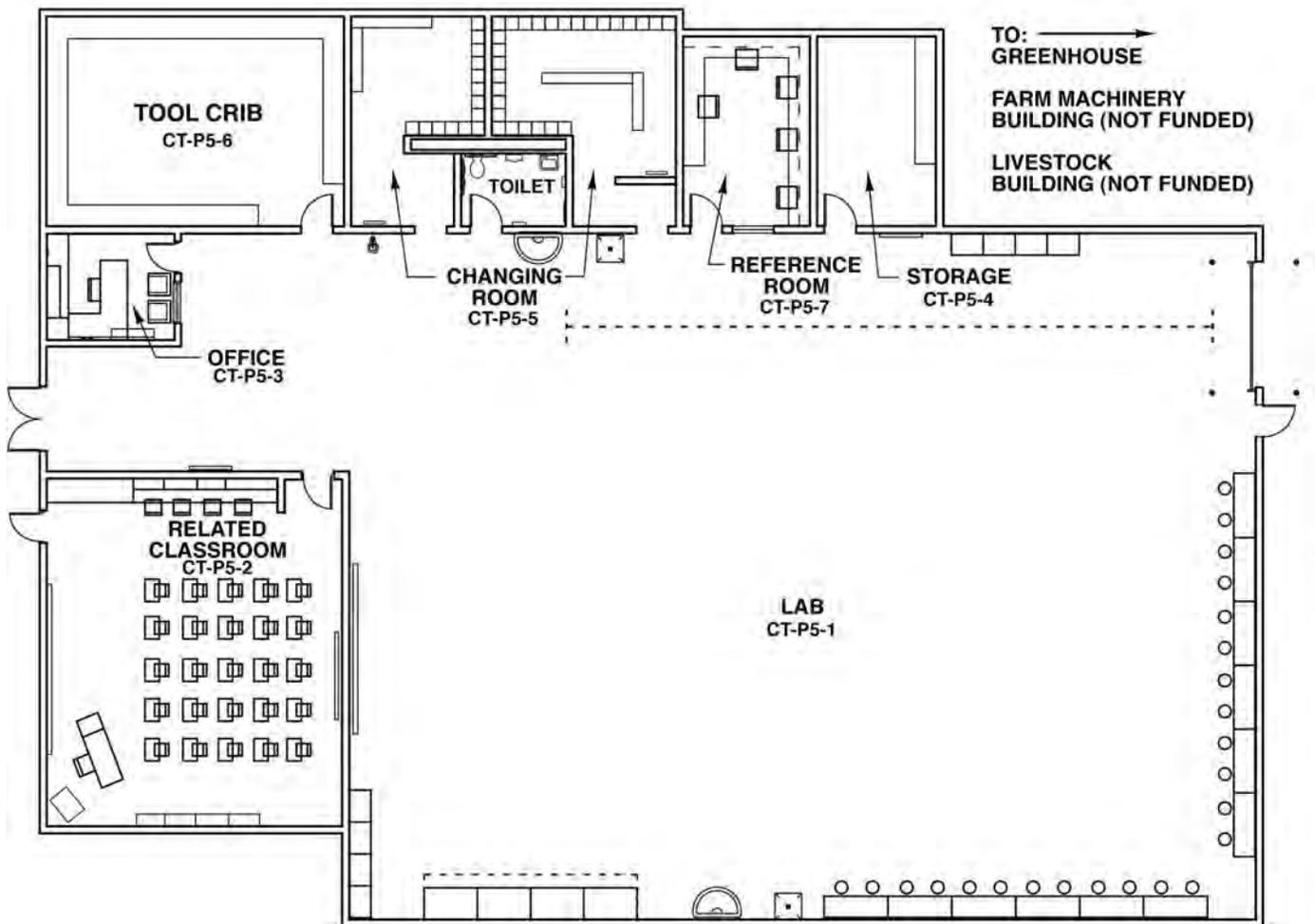
This is an example of how the Program Type 5 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

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**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

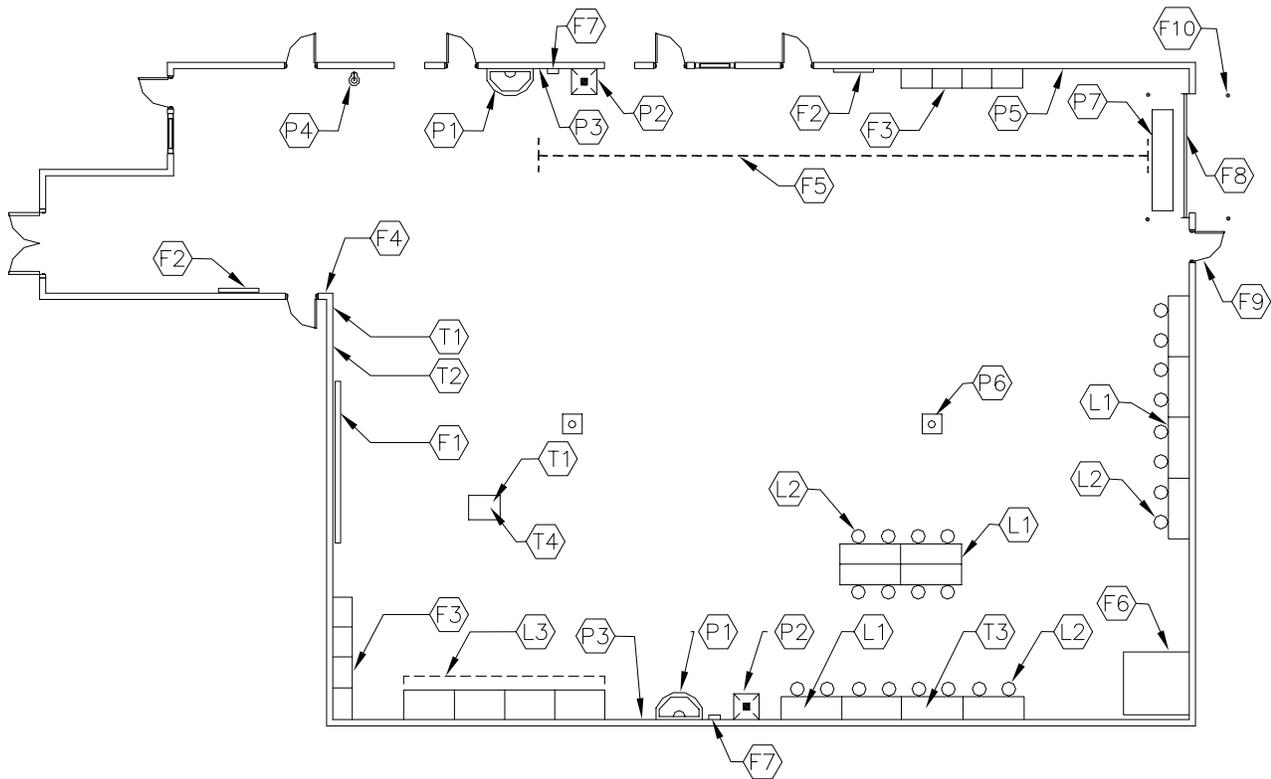


Program Type 5

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.



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

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.

LAB
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

PROCUREMENT, ACQUISITION, LOGISTICS, & SUPPLY CHAIN MANAGEMENT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

PROGRAM DESCRIPTION:		FEATURES¹:	Spec. Ref.#
<i>Preparation for the strategic operation and management of marketing systems with emphasis on logistics components, including purchasing and warehousing.</i>		Fixed Items:	
		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	062000
		(3) Paper towel dispensers	102813
Program Type:	5	40' of high-bay pallet storage system/shelving	105613
Size Requirements:	3,000 SF Lab	12'x14' motorized overhead sectional door to exterior	083613
Lab Requirements:		3'x7' hollow metal service door to exterior	081113
		Steel bollards at overhead door, both sides	055000
FINISHES:		Fire Suppression:	
Flooring:		Fire suppression system	211000
Cure and seal concrete	033000	Plumbing:	
Ceiling:		1 washfountain (minimum)	224000
Painted, exposed structure	099100	2 utility sinks (minimum)	224000
Walls:		2 hose bibbs (minimum)	224000
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash	224000
		2 floor drains	224000
		1 trench drain	224000
LOOSE FURNISHINGS:		Plumbing connections	221116/221119/224000
(6) Workbenches with heavy-duty metal tops		HVAC:	
(24) Stools or chairs		Supply/return air system	Div. 23
Wastebasket		Independent temperature control	230923
Pencil sharpener		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(2) 220 volt receptacles	262726
Miscellaneous:		Communications:	
N/A		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271523
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111

NOTES:

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

**AGRIBUSINESS AND PRODUCTION SYSTEMS
CT-P5-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec. Ref.#
<i>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.</i>		Fixed Items:	
Program Type: 5		F1 16' of chalk/marker board	101100
Size Requirements: 4,500 SF Lab		F2 8' of tack board	101100
Lab Requirements:		F3 24' of tall storage cabinets	123550
		F4 Pencil sharpener support	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
		F10 Steel bollards at overhead door, both sides	055000
	Spec. Ref #		
FINISHES:		Fire Suppression:	
Flooring:		Fire suppression system	211000
Cure and seal concrete	033000	Plumbing:	
Ceiling:		P1 2 washfountains (minimum)	224000
Painted, exposed structure	099100	P2 2 utility sinks (minimum)	224000
Walls:		P3 2 hose bibbs (minimum)	224000
Painted concrete masonry units	042000/ 099100	P4 Safety shower/eyewash	224500
		P5 6 compressed air connections	221513
		P6 2 floor drains	224000
		P7 1 trench drain	224000
LOOSE FURNISHINGS:		Plumbing connections	221116/221119/224000
L1 (12) Workbenches with heavy-duty metal tops		HVAC:	
L2 (24) Stools or chairs		Supply/return air system	Div. 23
L3 (4) Welding tables		Independent temperature control	230923
Wastebasket		Welding hood exhaust	Div. 23
Pencil sharpener		Electrical:	
SITE FEATURES:		High intensity lighting or fluorescent lighting	265100
Greenhouse - 1000 SF	133413	Illumination level: See Table 8600-4	
Concrete flooring (with drains)		Multilevel switching	262726
Minimum of one 8'x10' overhead door		30 duplex receptacles (minimum)	262726
Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations		Double duplex receptacle adjacent to each data and video port	262726
Minimum of 2 hose bibs		(6) 220 volt receptacles	262726
Fire suppression system if required		Communications:	
Plan for the following if required by school curriculum requirements:		T1 1 video port and video display device	271533/271543/274119
Farm machinery building		T2 1 voice port and phone	271513/273113
Livestock building		T3 4 data ports	271513
Overhead chain hoist		Clock	275313
		Central sound system	275123
Miscellaneous: N/A		Electronic Safety and Security:	
		Life safety devices per code	283111

NOTES:

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

**AUTO SPECIALIZATION
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: <i>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.</i>		FEATURES¹:	Spec. Ref.#
Program Type: 5		Fixed Items:	
Size Requirements: 3,500 SF Lab		16' of chalk/marker board	101100
Lab Requirements:		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	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
	Spec. Ref #	Fire Suppression:	
FINISHES:		Fire suppression system	211000
Flooring:		Plumbing:	
Cure and seal concrete	033000	2 washfountains (minimum)	224000
Ceiling:		2 utility sinks (minimum)	224000
Painted, exposed structure	099100	2 hose bibbs (minimum)	224000
Walls:		Safety shower/eyewash	224000
Painted concrete masonry units	042000/ 099100	2 floor drains	224000
		1 trench drain	224000
		6 compressed air connections	221513
		Plumbing connections	221116/221119/224000
LOOSE FURNISHINGS:		HVAC:	
(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
Pencil sharpener		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(6) 220 volt receptacles	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous: N/A	
The following items to be funded by the School District:			
Car lifts			

NOTES:

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

**BRICK, BLOCK, and CEMENT MASONRY
CT-P5-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
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.		
Program Type:	5	
Size Requirements:	3,500 SF Lab	
Lab Requirements:		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Cure and seal 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		
Pencil sharpener		
<u>Miscellaneous:</u>		
N/A		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		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
4 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 8600-4		
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
<u>Communications:</u>		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111

NOTES:

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

**BUILDING AND PROPERTY MAINTENANCE
BUILDING TECHNOLOGY
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		Spec. <u>Ref.#</u>
<p>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.</p> <p>Program Type: 5</p> <p>Size Requirements: 3,000 SF Lab</p> <p>Lab Requirements:</p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <p style="padding-left: 20px;">Cure and seal concrete</p> <p>Ceiling:</p> <p style="padding-left: 20px;">Painted, exposed structure</p> <p>Walls:</p> <p style="padding-left: 20px;">Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u></p> <p>(12) Workbenches with heavy-duty metal tops (24) Stools or chairs (2) Welding tables Wastebasket Pencil sharpener</p> <p><u>Electronic Safety and Security:</u></p> <p>Life safety devices per code</p> <p><u>Miscellaneous:</u></p> <p style="padding-left: 20px;">N/A</p>		<p><u>FEATURES¹:</u></p> <p><u>Fixed Items:</u></p> <p>16' of chalk/marker board 101100 8' of tack board 101100 24' of tall storage cabinets 123550 Pencil sharpener support 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></p> <p>Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p>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</p> <p><u>HVAC:</u></p> <p>Supply/return air system Div. 23 Independent temperature control 230923 Welding hood and exhaust Div. 23</p> <p><u>Electrical:</u></p> <p>High intensity lighting or fluorescent lighting 265100 Illumination level: See Table 8600-4 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</p> <p><u>Communications:</u></p> <p>1 video port and video display device 271533/271543/274119 1 voice port and phone 271513/273113 4 data ports 271513 Clock 275313 Central sound system 275123</p>
<p style="text-align: right;">Spec. <u>Ref #</u></p> <p style="text-align: right;">033000</p> <p style="text-align: right;">099100</p> <p style="text-align: right;">042000/ 099100</p> <p style="text-align: right;">283111</p>		

NOTES:

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

**CUSTODIAL SERVICES
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec. Ref.#
<i>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.</i>		Fixed Items:	
Program Type:	5	16' of chalk/marker board	101100
Size Requirements:	2,500 SF Lab	8' of tack board	101100
Lab Requirements:		24' of tall storage cabinets	123550
		Pencil sharpener support	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
		Fire Suppression:	
		Fire suppression system	211000
		Plumbing:	
		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
		HVAC:	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(6) 220 volt receptacles	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

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

**ELECTRICAL TRADES
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec. <u>Ref.#</u>
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.		<u>Fixed Items:</u>	
		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	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 8600-4	
		Multilevel switching	262726
		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
		<u>Communications:</u>	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
<u>PROGRAM TYPE:</u>	5		
<u>SIZE REQUIREMENTS:</u>	3,000 SF Lab		
<u>LAB REQUIREMENTS:</u>			
		Spec. <u>Ref #</u>	
<u>FINISHES:</u>			
<u>Flooring:</u>			
Cure and seal concrete	033000		
<u>Ceiling:</u>			
Painted, exposed structure	099100		
<u>Walls:</u>			
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>			
(12) Workbenches with heavy-duty non-conductive tops			
(24) Stools or chairs			
Wastebasket			
Pencil sharpener			
<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.

**ENVIRONMENTAL CONTROLS TECHNOLOGIES
CT-P5-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
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.		16' of chalk/marker board		101100
		8' of tack board		101100
		24' of tall storage cabinets		123550
		Pencil sharpener support		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
		Fire Suppression:		
		Fire suppression system		211000
		Plumbing:		
		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
		HVAC:		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Welding hood and exhaust		Div. 23
		Electrical:		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		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
		Communications:		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
Program Type: 5				
Size Requirements: 3,000 SF Lab				
Lab Requirements:				
		Spec.		
		Ref #		
FINISHES:				
Flooring:				
	Cure and seal concrete	033000		
Ceiling:				
	Painted, exposed structure	099100		
Walls:				
	Painted concrete masonry units	042000/ 099100		
LOOSE FURNISHINGS:				
(8) Workbenches with heavy-duty metal tops				
(24) Stools or chairs				
(4) Welding tables				
	Wastebasket			
	Pencil sharpener			
Electronic Safety and Security:				
	Life safety devices per code	283111		
Miscellaneous:				
	N/A			

NOTES:

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

HEAVY EQUIPMENT (Construction)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
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.		
Program Type:	5	
Size Requirements:	4,500 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(8) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Miscellaneous:</u>		
N/A		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		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
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 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
(2) 220 volt receptacles		262726
<u>Communications:</u>		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111

NOTES:

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

**INTEGRATED SYSTEMS TECHNOLOGY
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
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>	<u>Ref.#</u>
Program Type:	5	16' of chalk/marker board	101100
Size Requirements:	3,500 SF Lab	8' of tack board	101100
Lab Requirements:		24' of tall storage cabinets	123550
		Pencil sharpener support	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 8600-4	
		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 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
<u>FINISHES:</u>	Spec.		
	<u>Ref #</u>		
Flooring:			
Cure and seal 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			
Pencil sharpener			
<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.
2. ***This lab may be air-conditioned.***

INTERIOR DESIGN AND APPLICATION

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>		Spec.
<i>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.</i>		<u>Fixed Items:</u>		<u>Ref.#</u>
Program Type:	5	16' of chalk/marker board		101100
Size Requirements:	3,000 SF Lab	8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
		Pencil sharpener support		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
		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 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
<u>FINISHES:</u>	<u>Spec. Ref #</u>			
<u>Flooring:</u>				
Cure and seal concrete	033000			
<u>Ceiling:</u>				
Painted, exposed structure	099100			
<u>Walls:</u>				
Painted concrete masonry units	042000/ 099100			
<u>LOOSE FURNISHINGS:</u>				
(12) Workbenches with heavy-duty metal tops				
(24) Stools or chairs				
Wastebasket				
Pencil sharpener				
<u>Miscellaneous:</u>				
N/A				

NOTES:

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

**MANUFACTURING OPERATIONS
MANUFACTURING DESIGN AND DEVELOPMENT
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec.
<u>Mfg Operations:</u> Utilizing business and industry, math, English, science and technology standards, introduces the concepts of Manufacturing Operations; management, process and product quality assurance, logistics, maintenance, manufacturing costs, marketing and safety and health.		Ref.#
<u>Mfg Design & 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.		
Program Type:	5	
Size Requirements:	4,500 SF Lab	
Lab Requirements:		
FINISHES:	Spec.	
	Ref #	
<u>Flooring:</u>		
Cure and seal concrete	033000	
<u>Ceiling:</u>		
Painted, exposed structure	099100	
<u>Walls:</u>		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>	N/A	
FEATURES¹:		
<u>Fixed Items:</u>		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		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
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 8600-4		
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 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123

NOTES:

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

NATURAL RESOURCE MANAGEMENT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
<i>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.</i>		<u>Fixed Items:</u>	<u>Ref.#</u>
Program Type:	5	16' of chalk/marker board	101100
Size Requirements:	3,000 SF Lab	8' of tack board	101100
Lab Requirements:		24' of tall storage cabinets	123550
		Pencil sharpener support	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>FINISHES:</u>	<u>Spec. Ref #</u>	<u>Plumbing:</u>	
Flooring:		1 washfountain (minimum)	224000
Cure and seal 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	224000
		6 compressed air connections	221500
		4 natural gas connections	226313
		Master gas shut-off valve	226313
		Plumbing connections	221116/221119/224000
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
(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		<u>Electrical:</u>	
Pencil sharpener		High intensity lighting or fluorescent lighting	265100
<u>Miscellaneous:</u>	N/A	Illumination level: See Table 8600-4	
		Multilevel switching	262726
<u>SITE FEATURES:</u>		30 duplex receptacles (minimum)	262726
Greenhouse – 1,000 SF	133413	Double duplex receptacle adjacent to each data and video port	262726
▪ ½ earth flooring, ½ concrete flooring (with floor drains)		(4) 220 volt receptacles	262726
▪ Minimum of one 8'x10' overhead door		<u>Communications:</u>	
▪ Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations.		1 video port and video display device	271533/271543/274119
▪ Minimum of 4 hose bibbs		1 voice port and phone	271513/273113
▪ Fire suppression system if required		4 data ports	271513
		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

NOTES:

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

**PLUMBING AND PIPEFITTING
CT-P5-1**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		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.		16' of chalk/marker board		101100
		8' of tack board		101100
		24' of tall storage cabinets		123550
		Pencil sharpener support		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
Program Type:	5	Fire Suppression:		
Size Requirements:	3,000 SF Lab	Fire suppression system		211000
Lab Requirements:		Plumbing:		
		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
		HVAC:		
		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
		Electrical:		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		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
		Communications:		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
FINISHES:				
			Spec.	
			Ref #	
Flooring:				
Cure and seal concrete		033000		
Ceiling:				
Painted, exposed structure		099100		
Walls:				
Painted concrete masonry units		042000/ 099100		
LOOSE FURNISHINGS:				
(12) Workbenches with heavy-duty metal tops				
(24) Stools or chairs				
(4) Welding tables				
Wastebasket				
Pencil sharpener				
Electronic Safety and Security:				
Life safety devices per code		283111		
Miscellaneous:				
N/A				

NOTES:

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

POWER EQUIPMENT TECHNOLOGY

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

PROGRAM DESCRIPTION:		Spec.
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.		Ref.#
Program Type:	5	
Size Requirements:	3,500 SF Lab	
Lab Requirements:		
FINISHES:	Spec.	
	Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(2) Welding tables		
Wastebasket		
Pencil sharpener		
Electronic Safety and Security:		
Life safety devices per code	283111	
Miscellaneous:		
N/A		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		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
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
2 washfountains (minimum)		224000
2 utility sinks (minimum)		224000
2 hose bibbs (minimum)		224000
Safety shower/eyewash		224000
4 floor drains		224000
1 trench drain		224000
6 compressed air connections		221500
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Welding hood and exhaust		Div. 23
Electrical:		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
(6) 220 volt receptacles		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123

NOTES:

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

**POWER TRANSMISSION
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec.
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.		Ref.#
Program Type:	5	
Size Requirements:	3,500 SF Lab	
Lab Requirements:		
FINISHES:	Spec.	
	Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
Miscellaneous:		
N/A		
	FEATURES¹:	
	Fixed Items:	
	16' of chalk/marker board	101100
	8' of tack board	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support	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.	
	Fire Suppression:	
	Fire suppression system	211000
	Plumbing:	
	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
	HVAC:	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Electrical:	
	High intensity lighting or fluorescent lighting	265100
	Illumination level: See Table 8600-4	
	Multilevel switching	262726
	30 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
	Communications:	
	1 video port and video display device	271533/271543/274119
	1 voice port and phone	271513/273113
	4 data ports	271513
	Clock	275313
	Central sound system	275123
	Electronic Safety and Security:	
	Life safety devices per code	283111

NOTES:

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

**WELDING and CUTTING
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec. Ref.#
<i>Utilizing business and industry, math, science, and technology standards, introduces concepts of metal welding, brazing, and flame cutting.</i>	<u>Fixed Items:</u>	
	16' of chalk/marker board	101100
	8' of tack board	101100
	24' of tall storage cabinets	123550
	Pencil sharpener support	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
	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 8600-4	
	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
	<u>Communications:</u>	
	1 video port and video display device	271533/271543/274119
	1 voice port and phone	271513/273113
	4 data ports	271513
	Clock	275313
	Central sound system	275123
<u>Program Type:</u> 5		
<u>Size Requirements:</u> 3,500 SF Lab		
<u>Lab Requirements:</u>		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(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		
Pencil sharpener		
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>		
<i>The following item may be funded by the school district:</i>		
<i>Overhead hoist crane</i>		

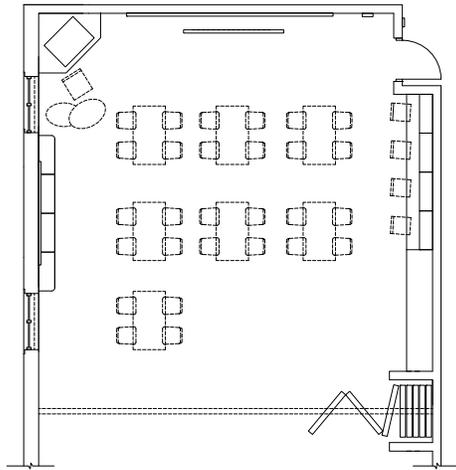
NOTES:

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

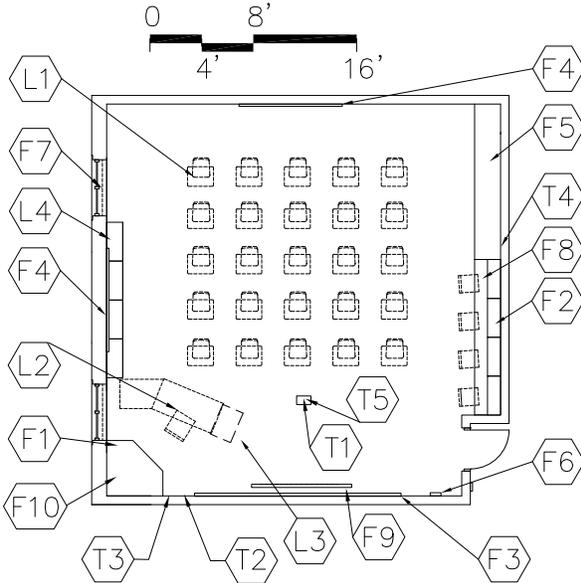
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RELATED CLASSROOM CT-P5-2

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
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:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC 0.70

NOTES:

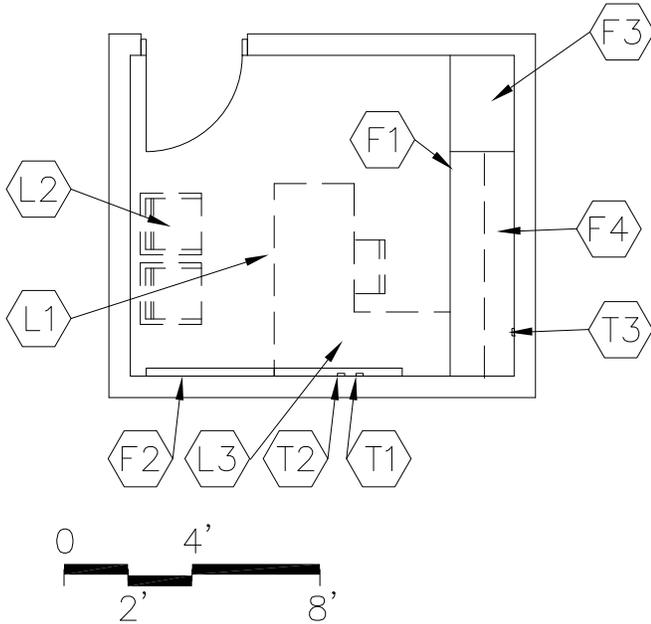
1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

**RELATED CLASSROOM
CT-P5-2**
CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet	096816	F1 3' of tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500	F2 Computer work surface (could be loose)	123550
<u>Base:</u>		F3 10'-16' of chalk/marker board	101100
Resilient base	096500	F4 10'-16' of tack board	101100
<u>Ceiling:</u>		F5 8'-12' of base & wall cabinets	123550
Suspended, acoustical	095113	F6 Pencil sharpener support	062000
<u>Walls:</u>		F7 Windows with integral blinds	085113
Painted concrete masonry units	042000/099100	F8 About 10' of wall cabinets	123550
		F9 Projection screen (optional)	115213
		F10 Technology support casework	123550
<u>LOOSE FURNISHINGS:</u>		<u>Fire Suppression:</u>	
L1 Student desks and chairs		Fire suppression system	211000
L2 Teacher desk or workstation/computer support and chair		<u>Plumbing:</u>	
L3 File cabinet		N/A	
L4 9' of low bookcases (fixed or mobile)		<u>HVAC:</u>	
Wastebasket		Supply/return air system	Div. 23
Pencil sharpener		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting:	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 video port	271533/271543
		T2 1 voice port and phone	271513/273113
		T3 1 data port near teacher workstation	271513
		T4 4 data ports (minimum) for student use	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		T5 Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		M1 Operable partitions between classrooms are optional	102226

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.



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:

- Uniform lighting
- 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**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES</u> ¹ :	Spec. Ref.#	<u>FEATURES</u> ¹ :	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 2' of 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 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		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:

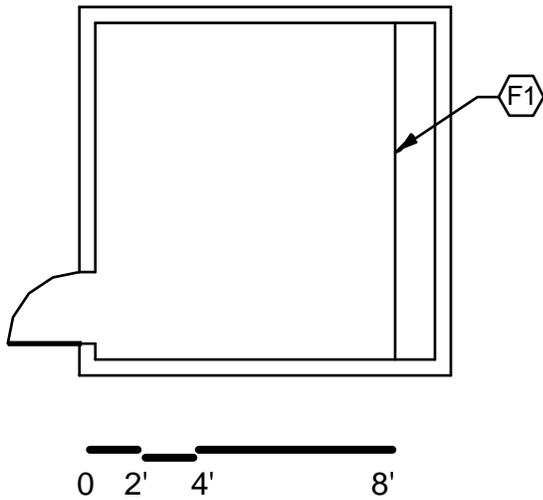
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

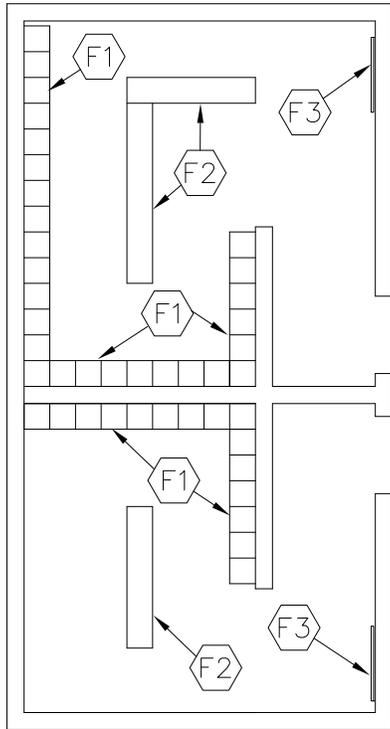
NOTES:

**STORAGE AREA
CT-P5-4**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Cure and seal 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 8600-4	
		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:**

- 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:

- Uniform lighting
- 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:

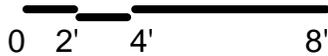
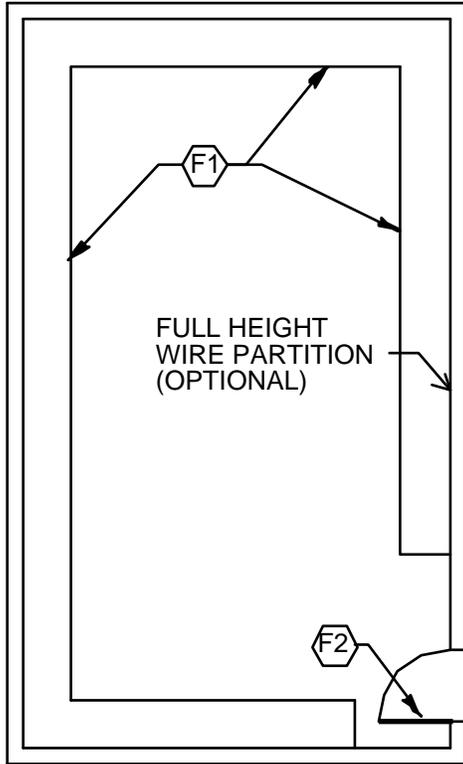
1. Large and small changing areas are interchangeable for either males or females.
Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times 30.

**CHANGING ROOM
CT-P5-4**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</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
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical with high impact hold down clips	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
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		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:

- Uniform lighting
- Sanitary and durable finishes

CAPACITY:
SIZE:
ANCILLARY SPACES:

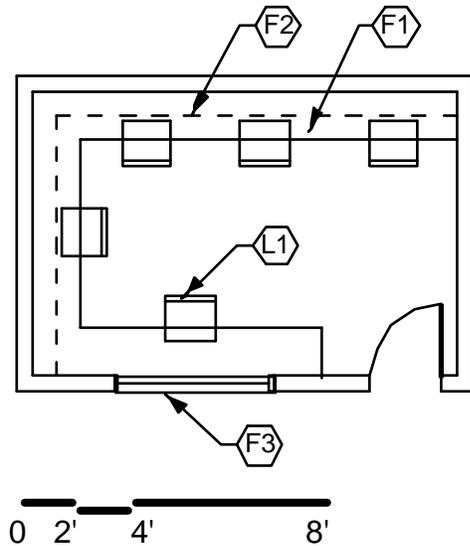
N/A
550 SF

**TOOL CRIB
CT-P5-6**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES</u> ¹ :		<u>FEATURES</u> ¹ :	
Flooring:		<u>Fixed Items</u> ¹ :	
Cure and seal 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 8600-4	
		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:

- Uniform lighting
- 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

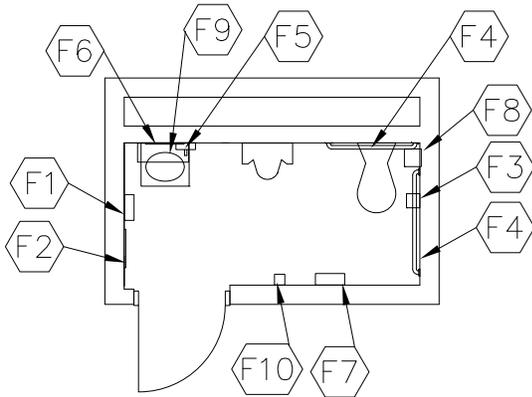
	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Cure and seal concrete	033000	F1 34' of plastic lam. counter	062000
Base:		F2 27' of adjustable shelving	062000
Resilient base	096500	F3 Interior window	081113/088000
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted concrete masonry units		N/A	
	042000 / 099100	<u>HVAC:</u>	
<u>LOOSE FURNISHINGS</u>		Supply/return air system	Div. 23
L3 Student chairs		Exhaust air system	Div. 23
Wastebasket		Supplemental heat as required	Div. 23
		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		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.

**TOILET ROOM
CT-P5-8**

CHAPTER 6: CAREER-TECHNICAL SCHOOL



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:

- Uniform lighting
- 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.#		Spec. Ref.#
<u>FINISHES</u>¹:		<u>FEATURES</u>¹:	
Sealed concrete	033000	<u>Fixed Items:</u>	
Optional: rubber	096500	F1 Towel dispenser	102813
Base:		F2 24" x 60" mirror	102813
Resilient base	096500	F3 Toilet tissue holder	102813
Ceiling:		F4 36" and 42" grab bars	102813
Suspended, acoustical	095113	F5 Soap dispenser	102813
Walls:		F6 16" x 24" mirror	102813
Painted concrete masonry units	042000 / 099100	F7 Sanitary product dispenser	102813
		F8 Sanitary product receptacle	102813
		F9 Stainless steel shelf (optional)	102813
		F10 Coat hook	102813
<u>LOOSE FURNISHINGS</u>		<u>Fire Suppression:</u>	
Wastebaskets		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		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.

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PROGRAM TYPE 6**CHAPTER 6: CAREER-TECHNICAL SCHOOL**

E.	Related Classroom Plate	6316-39
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Program Type 6

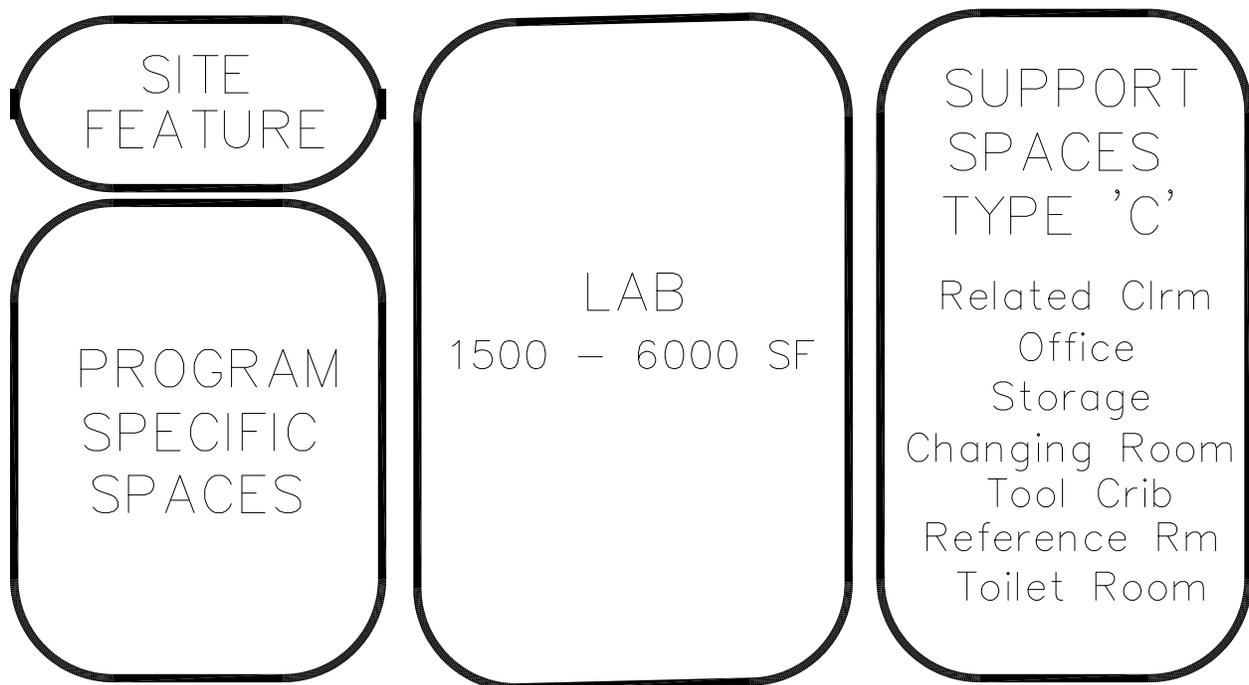
Description: Medium to large sized lab space with enhanced support space.

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.

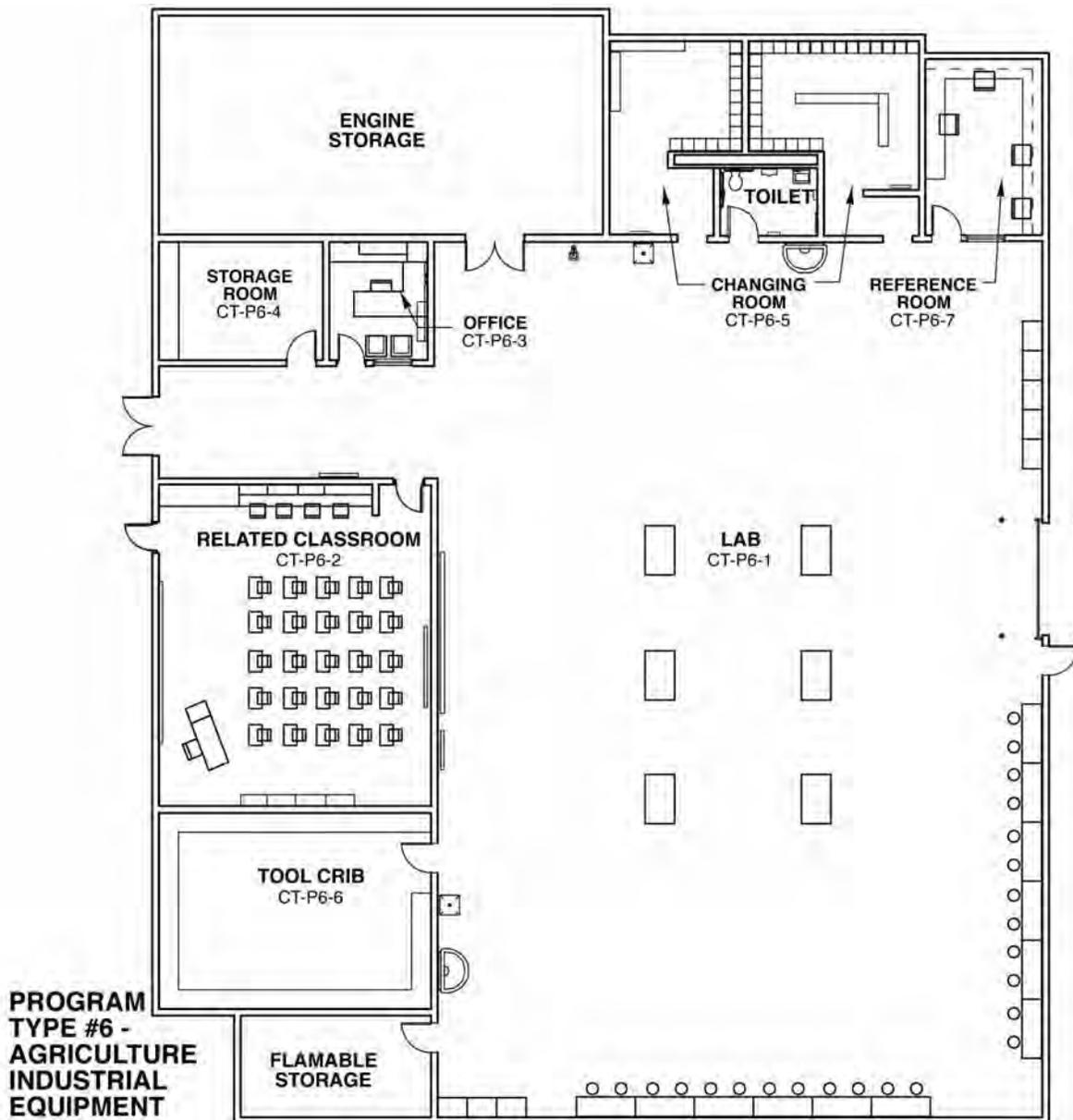
**NOTES:**

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
EXAMPLE**

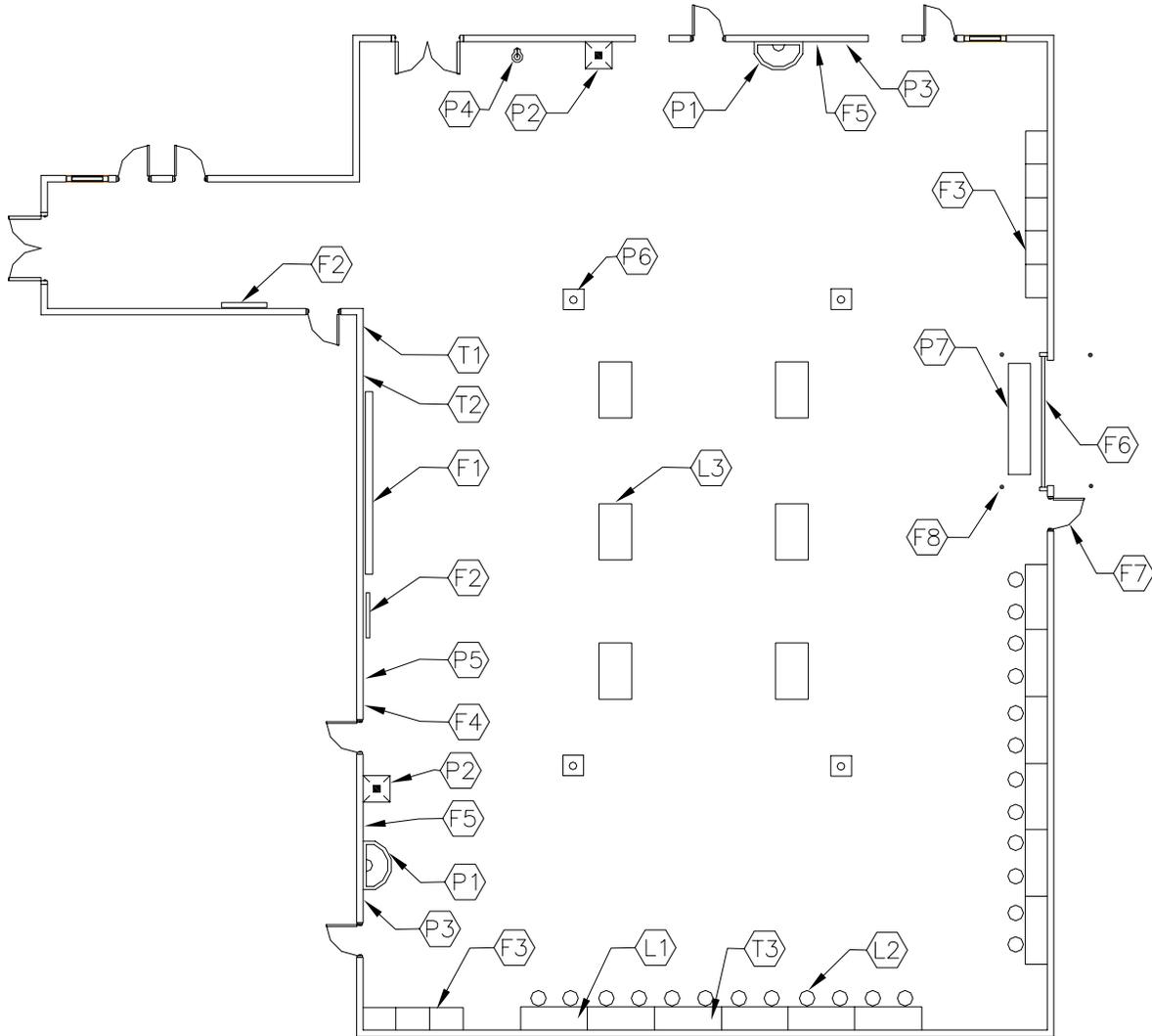


Program Type 6

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.

LAB
CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
 walls minimum STC 50
 ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

AGRICULTURE / INDUSTRIAL EQUIPMENT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P6-1

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		<u>Fixed Items:</u>		<u>Ref.#</u>
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.		F1	16' of chalk/marker board	101100
		F2	8' of tack board	101100
		F3	24' of tall storage cabinets	123550
		F4	Pencil sharpener support	062000
		F5	(4) Paper towel dispensers	102813
		F6	12'x14' motorized overhead sectional door to exterior	083613
Program Type:	6	F7	3'x7' hollow metal service door to exterior	081113
Size Requirements:	5,000 SF Lab	F8	Steel bollards at overhead door, both sides	055000
Lab Requirements:		<u>Fire Suppression:</u>		
		Fire suppression system		211000
		<u>Plumbing:</u>		
		P1	2 washfountains (minimum)	224000
		P2	2 utility sinks (minimum)	224000
		P3	2 hose bibbs (minimum)	224000
		P4	Safety shower/eyewash	224000
		P5	6 compressed air connections	221500
		P6	4 floor drains	224000
		P7	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		Div. 23
		Vehicle exhaust system		Div. 23
		<u>Electrical:</u>		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		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>		
		T1	1 video port and video display device	271533/271543/274119
		T2	1 voice port and phone	271513/273113
		T3	4 data ports	271513
		Clock		275313
		Central sound system		275123
FINISHES:		<u>Spec. Ref #</u>		
Flooring:				
Cure and seal concrete		033000		
Ceiling:				
Painted, exposed structure		099100		
Walls:				
Painted concrete masonry units		042000/ 099100		
LOOSE FURNISHINGS:				
L1	(12) Workbenches with heavy-duty metal tops			
L2	(24) Stools or chairs			
L3	(6) Welding tables			
	Wastebasket			
	Pencil sharpener			
Electronic Safety and Security:				
Life safety devices per code		283111		
Miscellaneous:				
N/A				

NOTES:

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

AGRICULTURE / INDUSTRIAL EQUIPMENT
Engine Storage

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#	
Program Type:	6		
Size Requirements:	1,000 SF		
Requirements:			
<u>FINISHES:</u>	Spec. Ref #		
Flooring:			
Cure and seal concrete	033000		
Ceiling:			
Suspended, acoustical	095113		
Option: painted, exposed structure	099100		
Walls:			
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>			
N/A			
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
▪ Wall minimum STC 50			
▪ This room to be one-story (14'+/-) tall, located within high-bay program.			
		<u>FEATURES¹:</u>	
		<u>Fixed Items:</u>	
		Pair of doors	081113
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
		<u>HVAC:</u>	
		Supplemental heat as required	Div. 23
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		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.

**AUTO COLLISION REPAIR
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: <i>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.</i>		FEATURES¹:	Spec. Ref.#
Program Type: 6		Fixed Items:	
Size Requirements: 5,000 SF Lab		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	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
Lab Requirements:		Fire Suppression:	
	Spec. Ref #	Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:		2 washfountains (minimum)	224000
Cure and seal concrete	033000	2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
Ceiling:		Safety shower/eyewash	224000
Painted, exposed structure	099100	8 compressed air connections	221500
		4 floor drains	224000
Walls:		1 trench drain	224000
Painted concrete masonry units	042000/ 099100	Plumbing connections	221116/221119/224000
		HVAC:	
LOOSE FURNISHINGS:		Supply/return air system	Div. 23
(6) Workbenches with heavy-duty metal tops		Independent temperature control	230923
(24) Stools or chairs		Electrical:	
Wastebasket		High intensity lighting or fluorescent lighting	265100
Pencil sharpener		Illumination level: See Table 8600-4	
		Multilevel switching	262726
Electronic Safety and Security:		30 duplex receptacles (minimum)	262726
Life safety devices per code	283111	Double duplex receptacle adjacent to each data and video port	262726
Miscellaneous:		(4) 220 volt receptacles	262726
N/A		Communications:	
		1 video port and video display device	271533/271543/274119
The following items are to be funded by the School District:		1 voice port and phone	271513/273113
Car lifts		4 data ports	271513
Frame racks		Clock	275313
		Central sound system	275123

NOTES:

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

AUTO COLLISION REPAIR
Auto Parts Storage

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6			FEATURES¹:	Spec. Ref.#
Size Requirements: 300 SF			Fixed Items: 30' of heavy duty adjustable steel shelving	105613
Requirements:			Fire Suppression: Fire suppression system	211000
FINISHES:		Spec. Ref #	Plumbing: N/A	
Flooring: Cure and seal concrete		033000	HVAC: Supplemental heat as required	Div. 23
Ceiling: Suspended, acoustical		095113	Electrical: Fluorescent lighting	265100
Walls: Painted concrete masonry units		042000/ 099100	Illumination level: See Table 8600-4	
LOOSE FURNISHINGS: N/A			Single level switching	262726
			4 duplex receptacles	262726
ENVIRONMENTAL CONSIDERATIONS:			Communications: Central sound system	275123
▪ Wall minimum STC 45			Electronic Safety and Security: Life safety devices per code	283111
▪ This room to be one-story (14'+/-) tall, located within high-bay program.			Miscellaneous: N/A	

NOTES:

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

**AUTO TECHNOLOGY
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#
<i>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.</i>		
Program Type:	6	
Size Requirements:	5,000 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(6) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
Electronic Safety and Security:		
Life safety devices per code	283111	
Miscellaneous:		
N/A		
The following items are to be funded by the School District:		
Car lifts		
Frame racks		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		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
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
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
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Vehicle exhaust system		Div. 23
Electrical:		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
(6) 220 volt receptacles		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
6 data ports		271513
Clock		275313
Central sound system		275123

NOTES:

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

**AUTO TECHNOLOGY
Machine Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	900 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Suspended, acoustical	095113	
Option: painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(4) Work tables		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		16' of tall 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
		<u>HVAC:</u>
		Supplemental heat as required Div. 23
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		220 v service 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.

CHAPTER 6: CAREER-TECHNICAL SCHOOL

AUTO TECHNOLOGY
Flammable Material Storage

		Spec. Ref.#
Program Type:	6	
Size Requirements:	60 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Fire-rated gypsum drywall	092113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
N/A		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 45		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		3' of heavy duty adjustable steel shelving
		105613
		<u>Fire Suppression:</u>
		Fire suppression system
		211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supplemental heat as required
		Div. 23
		Independent ventilation
		Div. 23
		<u>Electrical:</u>
		Fluorescent lighting
		265100
		Illumination level: See Table 8600-4
		Single level switching
		262726
		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.

**CARPENTRY
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
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.		
Program Type:	6	
Size Requirements:	4,000 SF Lab	
Lab Requirements:		
	Spec. <u>Ref #</u>	
<u>FINISHES:</u>		
Flooring:		
<i>Cure and seal</i> concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty wooden tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Miscellaneous:</u>		
N/A		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		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
<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
Dust collection system		233513
<u>Electrical:</u>		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
<i>Room safety push-button</i>		262726
<u>Communications:</u>		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111

NOTES:

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

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CARPENTRY
Finishing Room

		Spec. Ref.#
Program Type:	6	
Size Requirements:	500 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Suspended, acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(2) Work tables		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		FEATURES¹:
		<u>Fixed Items:</u>
		16' of pegboard 060565
		Pair of doors 081113
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supplemental heat as required Div. 23
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<u>Communications:</u>
		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.

**CONSTRUCTION (2 clusters)
Design/Build - Management
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	<u>FEATURES¹:</u>	Spec.
<i>C-D/B: Utilizes industry standards and a math, science, ELA, and technology framework to introduce concepts of designing, planning, managing, building and maintaining the built environment.</i>	<u>Fixed Items:</u>	<u>Ref.#</u>
<i>C-M: 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.</i>	16' of chalk/marker board	101100
Program Type: 6	8' of tack board	101100
Size Requirements: 3,000 SF Lab	24' of tall storage cabinets	123550
Lab Requirements:	Pencil sharpener support	062000
<u>FINISHES:</u>	(3) Paper towel dispensers	102813
Flooring:	12'x14' motorized overhead	
Cure and seal concrete	sectional door to exterior	083613
Spec.	3'x7' hollow metal service door	
<u>Ref #</u>	to exterior	081113
033000	Steel bollards at overhead door,	
Ceiling:	both sides	055000
Painted, exposed structure	<u>Fire Suppression:</u>	
099100	Fire suppression system	211000
Walls:	<u>Plumbing:</u>	
Painted concrete masonry units	1 washfountain (minimum)	224000
042000/ 099100	2 utility sinks (minimum)	224000
<u>LOOSE FURNISHINGS:</u>	2 hose bibbs (minimum)	224000
(12) Workbenches with heavy-duty metal tops	Safety shower/eyewash	224000
(24) Stools or chairs	6 compressed air connections	221500
(2) Welding tables	2 floor drains	224000
Wastebasket	1 trench drain	224000
Pencil sharpener	Plumbing connections	
<u>Electronic Safety and Security:</u>	221116/221119/224000	
Life safety devices per code	<u>HVAC:</u>	
283111	Supply/return air system	Div. 23
<u>Miscellaneous:</u>	Independent temperature control	230923
N/A	Welding hood and exhaust	233515
<u>NOTES:</u>	<u>Electrical:</u>	
1. Finishes/Features: Refer to Chapter 9 for specification references.	High intensity lighting or	265100
2. <i>This lab may be air-conditioned.</i>	fluorescent lighting	
Ohio School Design Manual-CT	Illumination level: See Table 8600-4	
Ohio School Facilities Commission	Multilevel switching	262726
6316 - 19	30 duplex receptacles (minimum)	262726
2010	Double duplex receptacle adjacent to	
	each data and video port	262726
	480v 3-phase service	262726
	<u>Communications:</u>	
	1 video port and video display device	
	271533/271543/274119	
	1 voice port and phone	271513/273113
	4 data ports	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.***

CONSTRUCTION
CAD Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	400 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, rubber,	096500	
sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(10) 2-person tables		
(20) Student chairs		
(1) Teacher station & chair		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		FEATURES¹:
		<u>Fixed Items:</u>
		6' of chalk/marker board 101100
		8' of tall storage cabinets 123550
		Projection screen, 6'x8' 115213
		<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, parabolic lenses:265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 data port near teacher workstation271513
		22 data ports 271513
		Central sound system 275123
		Overhead projector 274119
		<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.

ENGINEERING TECHNOLOGY

CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec. Ref.#
<i>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.</i>		Fixed Items:	
Program Type:	6	16' of chalk/marker board	101100
Size Requirements:	1,500 SF Lab	8' of tack board	101100
Lab Requirements:		24' of tall storage cabinets	123550
		Pencil sharpener support	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
		Fire Suppression:	
		Fire suppression system	211000
		Plumbing:	
		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
		HVAC:	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Welding hood and exhaust	233515
		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(6) 220 volt receptacles	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
FINISHES:	Spec. Ref #		
Flooring:			
Cure and seal concrete	033000		
Ceiling:			
Painted, exposed structure	099100		
Walls:			
Painted concrete masonry units	042000/ 099100		
LOOSE FURNISHINGS:			
(12) Workbenches with heavy-duty metal tops			
(24) Stools or chairs			
(4) Welding tables			
Wastebasket			
Pencil sharpener			
Electronic Safety and Security:			
Life safety devices per code	283111		
Miscellaneous:	N/A		

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.***

**ENGINEERING TECHNOLOGIES
CAD Room**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	400 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
ET, rubber,	096500	
sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(10) 2-person tables		
(20) Student chairs		
(1) Teacher station & chair		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		6' of chalk/marker board 101100
		8' of tall storage cabinets 123550
		Projection screen, 6'x8' 115213
		<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, parabolic lenses:265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 data port near teacher workstation 271513
		22 data ports 271513
		Central sound system 275123
		Overhead projector 274119
		<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.

FOOD SCIENCE AND TECHNOLOGY

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P6-1

PROGRAM DESCRIPTION: <i>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.</i>		FEATURES¹:	Spec. Ref.#
Program Type: 6		Fixed Items:	
Size Requirements: 2,000 SF Lab		16' of chalk/marker board	101100
Lab Requirements:		8' of tack board	101100
		Pencil sharpener support	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
	Spec. Ref #	Fire Suppression:	
FINISHES:		Fire suppression system	211000
Flooring:		Plumbing:	
Cure and seal concrete	033000	1 washfountain (minimum)	224000
Option: Epoxy, resinous flooring	096723	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	224000
Option: Fiberglass reinforced plastic panels		Plumbing connections	221116/221119/224000
LOOSE FURNISHINGS:		HVAC:	
(8) Workbenches with heavy-duty stainless steel tops		Supply/return air system	Div. 23
(24) Stools or chairs (stainless steel)		Independent temperature control	230923
Wastebasket		Electrical:	
Pencil sharpener		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		20 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(2) 220 volt receptacles	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

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

FOOD SCIENCE AND TECHNOLOGY

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Cooler

<p>Program Type: 6</p> <p>Size Requirements: 400 SF</p> <p>Requirements:</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"> ▪ Uniform lighting ▪ Ventilation for refrigeration machinery ▪ Cleanable building surfaces ▪ Floor to be flush with adjacent kitchen floor 	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES¹:</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 8600-4 Single level switching Electrical connections to cooler 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>
	<p>412223</p> <p>211000</p> <p>093000</p> <p>093000</p> <p>114000</p> <p>265100</p> <p>262726</p> <p>262726</p>

NOTES:

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

FOOD SCIENCE AND TECHNOLOGY**Retail**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	400 SF	
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
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>FEATURES¹:</u>	
	<u>Fixed Items:</u>	
	12' of solid surface counter with storage below	062000
	Cashier's station	123550
	Paper towel dispenser	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 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 8600-4	
	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.

**HORTICULTURE
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: <i>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.</i>		FEATURES¹:	Spec. Ref.#
Program Type: 6		<u>Fixed Items:</u>	
Size Requirements: 2,000 SF Lab		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	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
Lab Requirements:		<u>Fire Suppression:</u>	
	Spec. Ref #	Fire suppression system	211000
FINISHES:		<u>Plumbing:</u>	
Flooring:		1 washfountain (minimum)	224000
Cure and seal 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:		Plumbing connections	221116/221119/224000
Painted concrete masonry units	042000/ 099100	<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
LOOSE FURNISHINGS:		<u>Electrical:</u>	
(12) Workbenches with heavy-duty metal tops		High intensity lighting or fluorescent lighting	265100
(24) Stools or chairs		Illumination level: See Table 8600-4	
Wastebasket		Multilevel switching	262726
Pencil sharpener		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
SITE FEATURES:		<u>Communications:</u>	
Greenhouse – 3,000 SF	133413	1 video port and video display device	271533/271543/274119
½ earth flooring, ½ concrete flooring (w/drains)		1 voice port and phone	271513/273113
Minimum of one 8'x10' overhead door		4 data ports	271523
Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations		Clock	275313
Minimum of 4 hose bibbs		Central sound system	275123
Fire suppression system if required		<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.

HORTICULTURE**Retail**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	400 SF	
Requirements:		
<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>FEATURES¹:</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 8600-4
		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.

MEDIUM/HEAVY TRUCK TECHNICIAN

CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec.
<i>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.</i>		<u>Fixed Items:</u>	<u>Ref.#</u>
Program Type:	6	16' of chalk/marker board	101100
Size Requirements:	6,000 SF Lab	8' of tack board	101100
Lab Requirements:		24' of tall storage cabinets	123550
<u>FINISHES:</u>	Spec.	Pencil sharpener support	062000
	<u>Ref #</u>	(4) Paper towel dispensers	102813
<u>Flooring:</u>		12'x14' motorized overhead sectional door to exterior	083613
Cure and seal concrete	033000	3'x7' hollow metal service door to exterior	081113
<u>Ceiling:</u>		Steel bollards at overhead door, both sides	055000
Painted, exposed structure	099100	<u>Fire Suppression:</u>	
<u>Walls:</u>		Fire suppression system	211000
Painted concrete masonry units	042000/ 099100	<u>Plumbing:</u>	
<u>LOOSE FURNISHINGS:</u>		2 washfountains (minimum)	224000
(8) Workbenches with heavy-duty metal tops		2 utility sinks (minimum)	224000
(24) Stools or chairs		2 hose bibbs (minimum)	224000
Wastebasket		Safety shower/eyewash	224000
Pencil sharpener		8 compressed air connections	221500
<u>Miscellaneous:</u>		4 floor drains	224000
N/A		1 trench drain	224000
<u>The following items are to be funded by the School District:</u>		Plumbing connections	221116/221119/224000
Truck lifts		<u>HVAC:</u>	
Frame rack		Supply/return air system	Div. 23
		Independent temperature control	230923
		Vehicle exhaust system	Div. 23
		<u>Electrical:</u>	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		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 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

NOTES:

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

**MEDIUM/HEAVY TRUCK TECHNICIAN
Flammable Material Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6	Spec. Ref #	<u>FEATURES¹:</u>	Spec. Ref.#
Size Requirements: 60 SF		<u>Fixed Items:</u> 3' of heavy duty adjustable steel shelving	105613
Requirements:		<u>Fire Suppression:</u> Fire suppression system	211000
<u>FINISHES:</u>		<u>Plumbing:</u> N/A	
Flooring:	033000		
Cure and seal concrete		<u>HVAC:</u> Supplemental heat as required Independent ventilation	Div. 23 Div. 23
Ceiling:	092113		
Fire-rated gypsum drywall		<u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-4 Single level switching 2 duplex receptacles	265100 262726 262726
Walls:	042000/ 099100		
Painted concrete masonry units		<u>Communications:</u> Central sound system	275123
<u>LOOSE FURNISHINGS:</u>		<u>Electronic Safety and Security:</u> Life safety devices per code	283111
N/A		<u>Miscellaneous:</u> N/A	
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
<ul style="list-style-type: none"> ▪ Wall minimum STC 45 ▪ This room to be one-story (14'+/-) tall, located within high-bay program. 			

NOTES:

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

**MEDIUM/HEAVY TRUCK TECHNICIAN
Machine Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	900 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Suspended, acoustical	095113	
Option: painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(4) Work tables		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		16' of tall 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
		<u>HVAC:</u>
		Supplemental heat as required Div. 23
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		220 v service 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.

**PRECISION MACHINING
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: <i>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.</i>		FEATURES¹:	Spec. Ref.#
Program Type:	6	<u>Fixed Items:</u>	
Size Requirements:	3,500 SF Lab	16' of chalk/marker board	101100
Lab Requirements:		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	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
FINISHES:	Spec. Ref #	<u>Plumbing:</u>	
Flooring:		2 washfountains (minimum)	224000
Cure and seal concrete	033000	2 utility sinks (minimum)	224000
Ceiling:		2 hose bibbs (minimum)	224000
Painted, exposed structure	099100	Safety shower/eyewash	224000
Walls:		20 compressed air connections	221500
Painted concrete masonry units	042000/ 099100	Flat floor – no floor drains	
		1 trench drain	224000
		Plumbing connections	221116/221119/224000
LOOSE FURNISHINGS:		<u>HVAC:</u>	
(6) Workbenches with heavy-duty metal tops		Supply/return air system	Div. 23
(24) Stools or chairs		Independent temperature control	230923
Wastebasket		<u>Electrical:</u>	
Pencil sharpener		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		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
Miscellaneous:	N/A	<u>Communications:</u>	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

NOTES:

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

2. *This lab may be air-conditioned.*

**PRECISION MACHINING
CNC Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	900 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Cure and seal concrete	033000	
Ceiling:		
Suspended, acoustical	095113	
Option: painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(4) Chairs		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		20' of plastic laminate counter 123550
		20' of adjustable shelving 062000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supplemental heat as required Div. 23
		Independent ventilation (see note 2) Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		220v service 262726
		<u>Communications:</u>
		Central sound system 275123
		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.
2. **Room may be cooled from central HVAC system, but all air must be exhausted and not returned.**

**WOOD PRODUCT TECHNOLOGIES
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>	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.	<u>FEATURES¹:</u>	Spec.
Program Type:	6	<u>Fixed Items:</u>	<u>Ref.#</u>
Size Requirements:	3,000 SF Lab	16' of chalk/marker board	101100
Lab Requirements:		8' of tack board	101100
<u>FINISHES:</u>	Spec.	24' of tall storage cabinets	123550
Flooring:	<u>Ref #</u>	Pencil sharpener support	062000
<i>Cure and seal</i> concrete	033000	(3) Paper towel dispensers	102813
Ceiling:		12'x14' motorized overhead	
Painted, exposed structure	099100	sectional door to exterior	083613
Walls:		3'x7' hollow metal service door	081113
Painted concrete masonry units	042000/ 099100	to exterior	081113
<u>LOOSE FURNISHINGS:</u>		Steel bollards at overhead door,	055000
(12) Workbenches with heavy-duty		both sides	
wooden tops		<u>Fire Suppression:</u>	
(24) Stools or chairs		Fire suppression system	211000
Wastebasket		<u>Plumbing:</u>	
Pencil sharpener		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
		Dust collection system	233513
		<u>Electrical:</u>	
		High intensity lighting or	265100
		fluorescent lighting	
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to	
		each data and video port	262726
		<u>Communications:</u>	
		1 video port and video display device	
		271533/271543/274119	
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		<i>Room safety push-button</i>	262726
		<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.

WOOD PRODUCT TECHNOLOGIES
Finishing Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

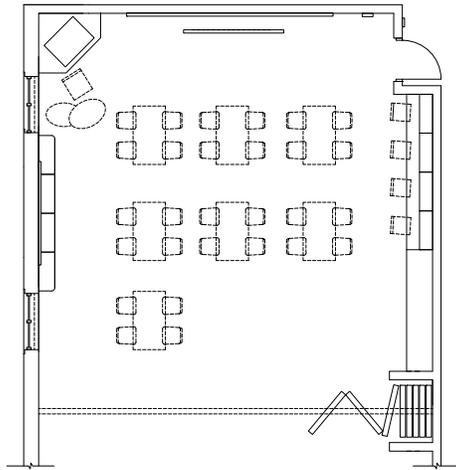
Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 500 SF		Fixed Items:	Ref.#
		16' of pegboard	060565
		Pair of doors	081113
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:		N/A	
Cure and seal concrete	Spec. Ref # 033000	HVAC:	
Ceiling:		Supplemental heat as required	Div. 23
Suspended, acoustical	095113	Independent ventilation	Div. 23
Option: painted, exposed structure	099100		
Walls:		Electrical:	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
(2) Work tables		Central sound system	275123
		Clock	275313
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
<ul style="list-style-type: none"> ▪ Wall minimum STC 50 ▪ This room to be one-story (14'+/-) tall, located within high-bay program. 		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

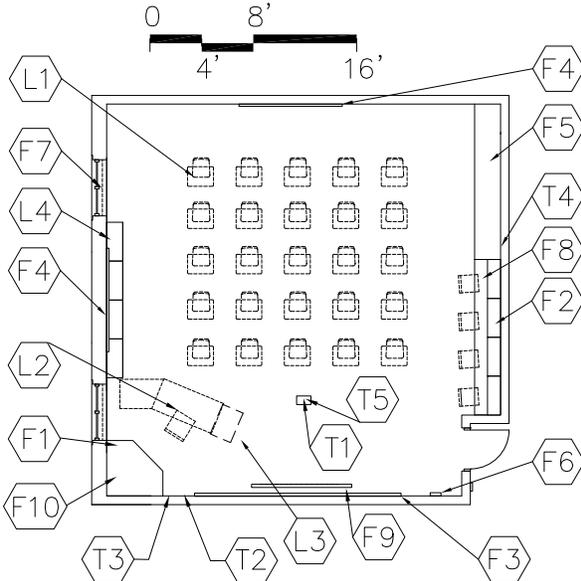
1. Finishes/Features: Refer to Chapter 9 for specification references.

RELATED CLASSROOM CT-P6-2

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
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:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC **0.70**

NOTES:

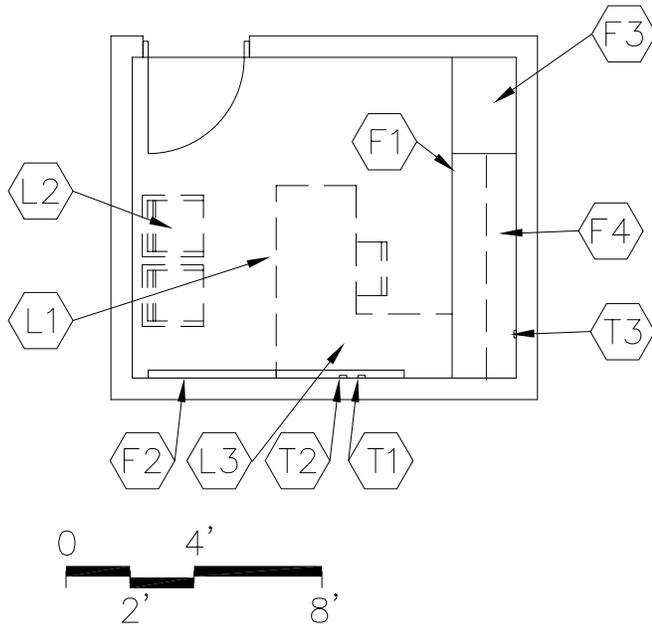
1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

**RELATED CLASSROOM
CT-P6-2**
CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet	096816	F1 3' of tall wardrobe with file drawers	123550
Optional: linoleum, ET, or sheet vinyl	096516 096500	F2 Computer work surface (could be loose)	123550
<u>Base:</u>		F3 10'-16' of chalk/marker board	101100
Resilient base	096500	F4 10'-16' of tack board	101100
<u>Ceiling:</u>		F5 8'-12' of base & wall cabinets	123550
Suspended, acoustical	095113	F6 Pencil sharpener support	062000
<u>Walls:</u>		F7 Windows with integral blinds	085113
Painted concrete masonry units	042000/099100	F8 About 10' of wall cabinets	123550
		F9 Projection screen (optional)	115213
		F10 Technology support casework	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 8600-4	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 video port	271533/271543
		T2 1 voice port and phone	271513/273113
		T3 1 data port near teacher workstation	271513
		T4 4 data ports (minimum) for student use	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		T5 Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		M1 Operable partitions between classrooms are optional	102226

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.



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:

- Uniform lighting
- 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**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
		F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 2' of 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 over metal studs	092116/099100	N/A	
<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 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		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:

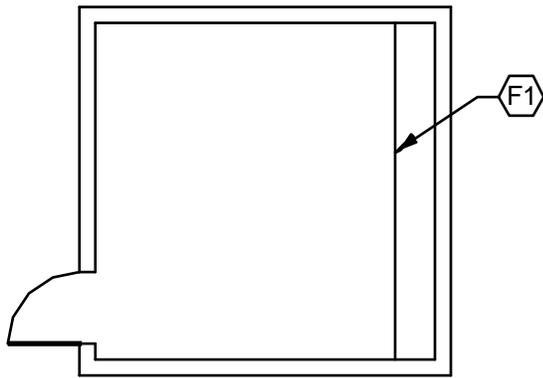
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

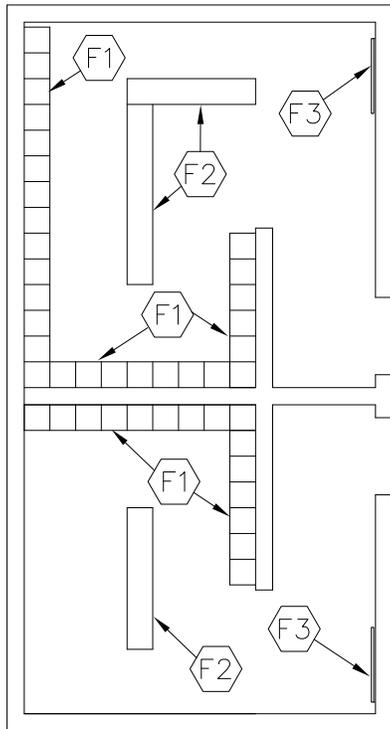
NOTES:

**STORAGE AREA
CT-P6-4**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
<i>Cure and seal</i> 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 8600-4	
		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:**

- 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:

- Uniform lighting
- 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-P6-5**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

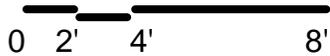
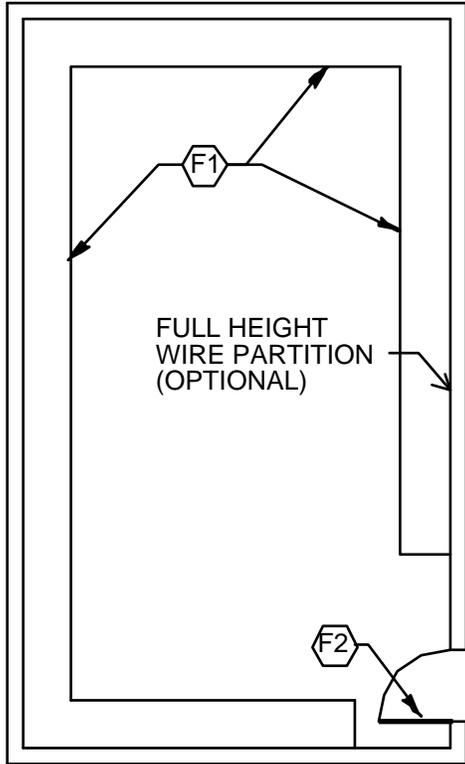
<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Polished concrete finishing, or colored concrete finishing	033510 033519	F1 Student lockers	105113
Optional: linoleum or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
<u>Base:</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 8600-4	
		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.

**TOOL CRIB
CT-P6-6**

CHAPTER 6: CAREER-TECHNICAL SCHOOL



PROGRAM ACTIVITIES:

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

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes

CAPACITY:
SIZE:
ANCILLARY SPACES:

N/A
550 SF

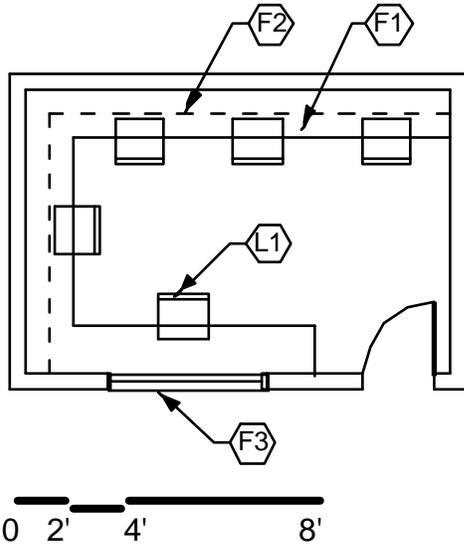
NOTES:

TOOL CRIB
CT-P6-6
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Cure and seal concrete	033000	F1 80' of open metal shelving (total),	
Optional: linoleum, or rubber	096500	Depth may vary (fixed or loose)	105613
	096516	F2 Dutch door	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		Exhaust air system	Div. 23
	042000 / 099100	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 8600-4	
		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:

- Uniform lighting
- Sanitary and durable finishes
- Environmental sound control
Wall minimum STC 50
Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
200 SF

NOTES:

**REFERENCE ROOM
CT-P6-7**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

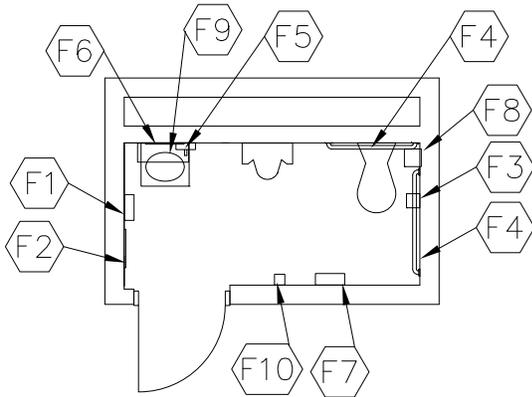
	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Cure and seal concrete	033000	F1 34' of plastic lam. counter	062000
Optional: rubber	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113/ 088000
Base:		<u>Fire Suppression:</u>	
Resilient 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 8600-4	
		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.

**TOILET ROOM
CT-P6-8**

CHAPTER 6: CAREER-TECHNICAL SCHOOL



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:

- Uniform lighting
- 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. Ref.#		Spec. Ref.#
<u>FINISHES</u>¹:		<u>FEATURES</u>¹:	
Polished concrete finishing	033510	<u>Fixed Items:</u>	
or colored concrete finishing	033519	F1 Towel dispenser	102813
Optional: Rubber	096500	F2 24" x 60" mirror	102813
		F3 Toilet tissue holder	102813
Base:		F4 36" and 42" grab bars	102813
Resilient base	096500	F5 Soap dispenser	102813
		F6 16" x 24" mirror	102813
Ceiling:		F7 Sanitary product dispenser	102813
Suspended, acoustical	095113	F8 Sanitary product receptacle	102813
		F9 Stainless steel shelf (optional)	102813
Walls:		F10 Coat hook	102813
Painted concrete masonry units	042000 / 099100		
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
<u>LOOSE FURNISHINGS</u>			
Wastebaskets		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		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.

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K.	Toilet Room Plate	6317-25

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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.

**NOTES:**

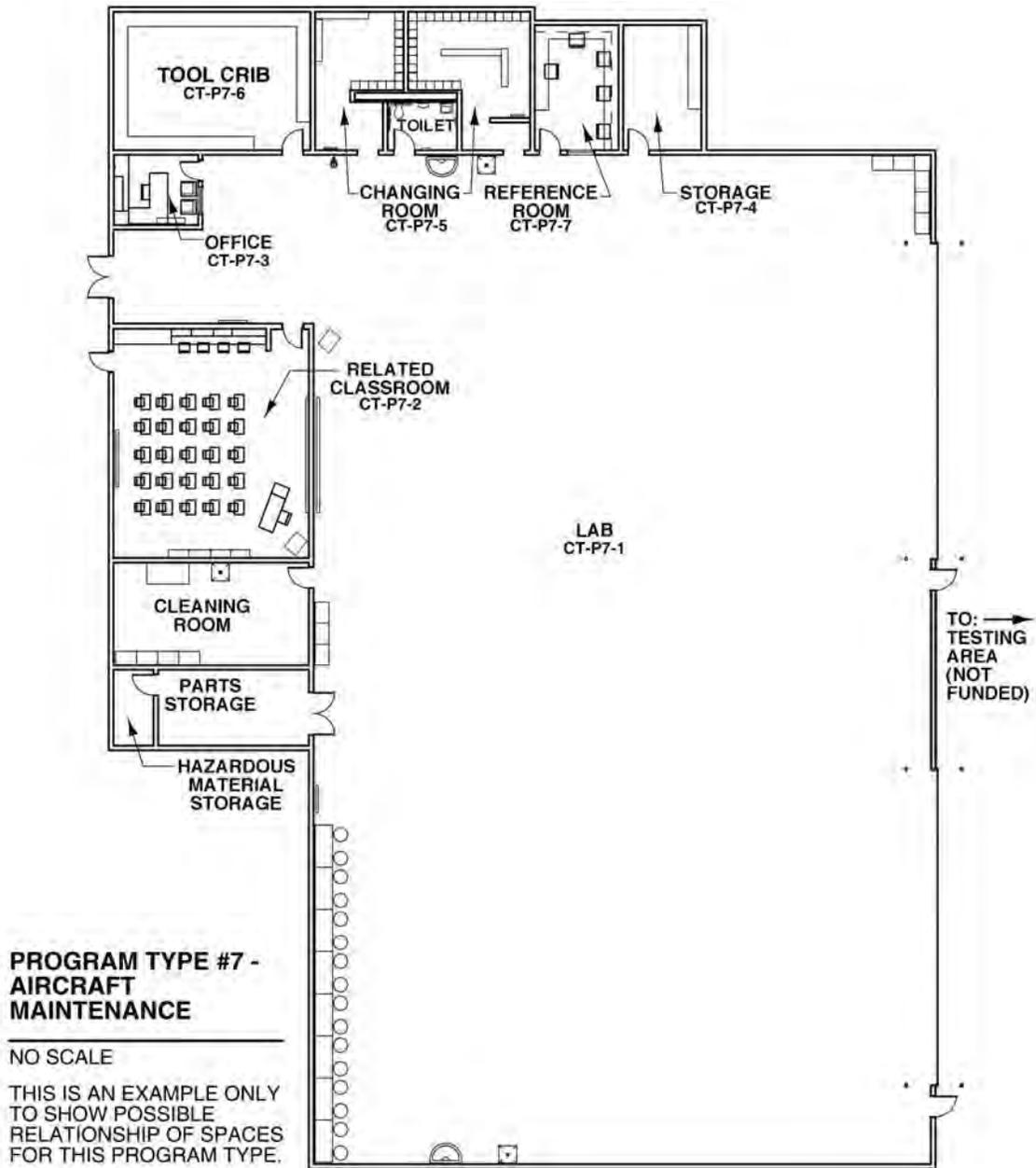
This is an example of how the Program Type 7 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

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

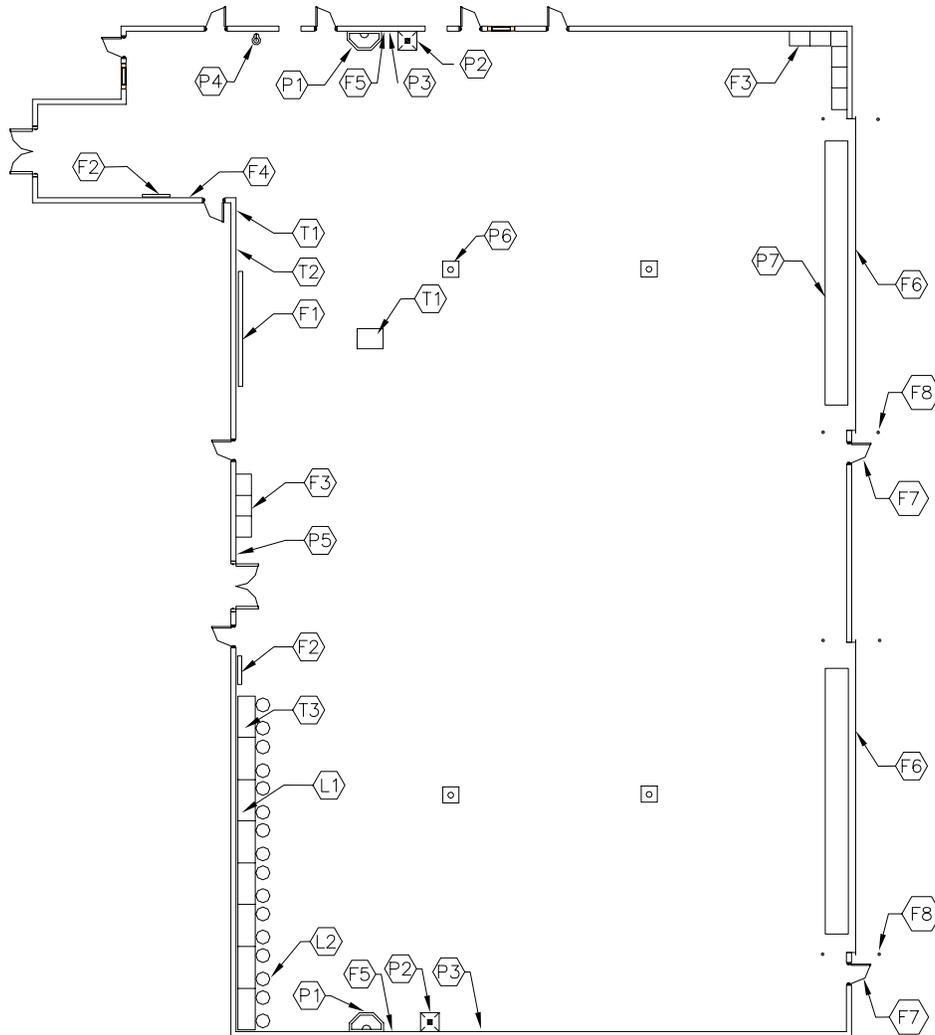
**PROGRAM TYPE 7
EXAMPLE**

CHAPTER 6: CAREER-TECHNICAL SCHOOL



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.

LAB
CT-P7-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

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:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

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.

**AVIATION MAINTENANCE
CT-P7-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: 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.		FEATURES¹:	Spec. Ref.#
Program Type: 7		Fixed Items:	
Size Requirements: 13,000 SF Lab		F1 16' of chalk/marker board	101100
Lab Requirements:		F2 8' of tack board	101100
	Spec. Ref #	F3 24' of tall storage cabinets	123550
FINISHES:		F4 Pencil sharpener support	062000
Flooring:		F5 (4) Paper towel dispensers	102813
Sealed concrete	033000	F6 (2) 35'high x 45'long motorized overhead sectional doors to exterior	083613
Ceiling:		F7 (2) 3'x7' hollow metal service doors to exterior	081113
Painted, exposed structure	099100	F8 Steel bollards at overhead door, both sides	055000
Walls:		Fire Suppression:	
Painted concrete masonry units	042000/ 099100	Fire suppression system	211000
LOOSE FURNISHINGS:		Plumbing:	
L1 (8) Workbenches with heavy-duty metal tops		P1 2 washfountains (minimum)	224000
L2 (24) Stools or chairs		P2 2 utility sinks (minimum)	224000
Wastebasket		P3 3 hose bibbs (minimum)	224000
Pencil sharpener		P4 Safety shower/eyewash	224000
Electronic Safety and Security:		P5 14 compressed air connections	221500
Life safety devices per code	283111	P6 2 floor drains	224000
Miscellaneous:		P7 1 trench drain	224000
N/A		Plumbing connections	221116/221119/224000
The following items to be funded by the School District:		HVAC:	
Paint booth, paint prep station, paint mixing station		Supply/return air system	Div. 23
		Independent temperature control	230923
		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		40 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		220v service	262726
		Communications:	
		T1 1 video port and video display device	271533/271543/274119
		T2 1 voice port and phone	271513/273113
		T3 4 data ports	271513
		Clock	275313
		Central sound system	275123

NOTES:

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

**AVIATION MAINTENANCE
Parts Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	7	
Size Requirements:	300 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Fire-rated gypsum drywall	092113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
N/A		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 45		
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		
		FEATURES¹:
		<u>Fixed Items:</u>
		30' of heavy duty steel adjustable shelving
		105613
		<u>Fire Suppression:</u>
		Fire suppression system
		211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supplemental heat as required
		Div. 23
		Independent ventilation
		Div. 23
		<u>Electrical:</u>
		Fluorescent lighting
		265100
		Illumination level: See Table 8600-4
		Single level switching
		262726
		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.

**AVIATION MAINTENANCE
Hazardous Material Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#	
Program Type:	7		
Size Requirements:	60 SF		
Requirements:			
<u>FINISHES:</u>	Spec. Ref #		
Flooring:			
Sealed concrete	033000		
Ceiling:			
Fire-rated gypsum drywall	092116		
Walls:			
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>			
N/A			
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
▪ Wall minimum STC 45			
▪ This room to be one-story (14'+/-) tall, located within high-bay program.			
		FEATURES¹:	
		<u>Fixed Items:</u>	
		N/A	
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
		<u>HVAC:</u>	
		Supplemental heat as required	Div. 23
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		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.

**ANIMAL SCIENCE AND MANAGEMENT - EQUINE
CT-P7-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

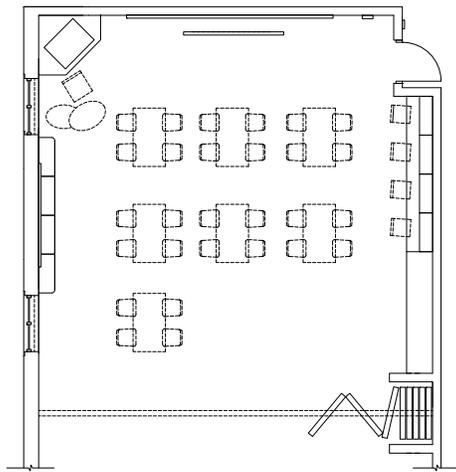
<p><u>PROGRAM DESCRIPTION:</u> Applies principles of anatomy and physiology, nutrition, reproduction, health, and genetics and behavior to the production, management, marketing, and training of domestic animals.</p> <p>Program Type: 7</p> <p>Size Requirements: 8,000 SF Lab</p> <p>Lab Requirements:</p> <p><u>FINISHES:</u> Flooring: Compacted earth</p> <p>Ceiling: Painted, exposed structure</p> <p>Walls: Painted exposed structure</p> <p><u>LOOSE FURNISHINGS:</u> N/A</p> <p><u>SITE FEATURE:</u> Plan for the following if required by school curriculum requirements: Fenced riding area</p>	<p align="right">Spec. Ref.#</p> <p><u>FEATURES¹:</u> <u>Fixed Items:</u> 180' of metal pipe rail fencing 055000 12' x 14' 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> 2 hose bibbs (minimum) 224000 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 8600-4 Multilevel switching 262726 12 duplex receptacles (minimum) 262726</p> <p><u>Communications:</u> 1 voice port and phone 271513/273113 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:

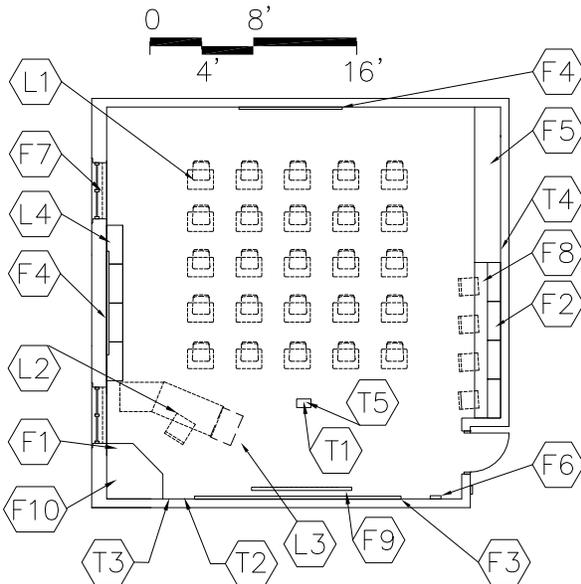
1. Finishes/Features: Refer to Chapter 9 for specification references.

RELATED CLASSROOM CT-P7-2

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
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:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC **0.70**

NOTES:

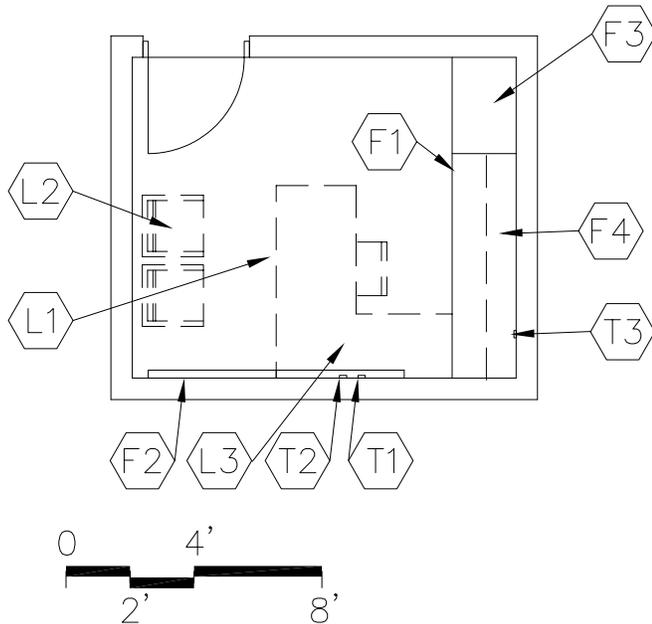
1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

**RELATED CLASSROOM
CT-P7-2**
CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet	096816	F1 3' of tall wardrobe with file drawers	123550
Optional: Linoleum, ET, or sheet vinyl	096516 096500	F2 Computer work surface (could be loose)	123550
<u>Base:</u>		F3 10'-16' of chalk/marker board	101100
Resilient base	096500	F4 10'-16' of tack board	101100
<u>Ceiling:</u>		F5 8'-12' of base & wall cabinets	123550
Suspended, acoustical	095113	F6 Pencil sharpener support	062000
<u>Walls:</u>		F7 Windows with integral blinds	085113
Painted concrete masonry units	042000/099100	F8 About 10' of wall cabinets	123550
		F9 Projection screen (optional)	115213
		F10 Technology support casework	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 8600-4	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 video port	271533/271543
		T2 1 voice port and phone	271513/273113
		T3 1 data port near teacher workstation	271513
		T4 4 data ports (minimum) for student use	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		T5 Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		M1 Operable partitions between classrooms are optional	102226

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.



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:

- Uniform lighting
- 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**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
		F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 2' of 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 over metal studs	092116/099100	N/A	
<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		<u>Electrical:</u>	
Wastebasket		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		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:

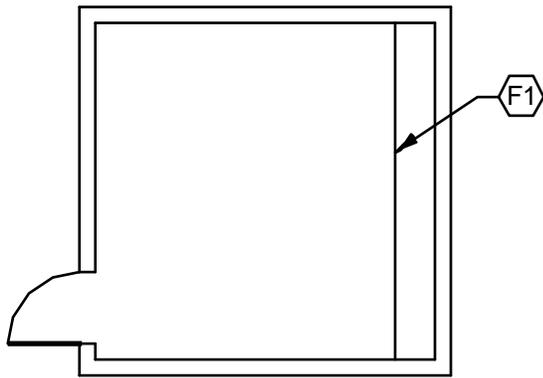
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

NOTES:

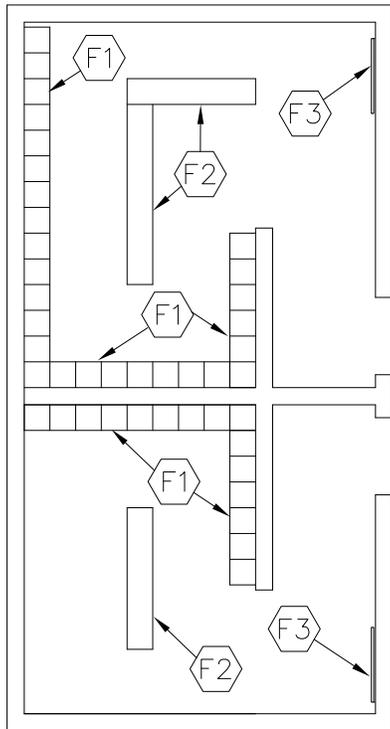
**STORAGE AREA
CT-P7-4**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
<i>Cure and seal</i> 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 8600-4	
		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:**

- 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:

- Uniform lighting
- 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-P7-4**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

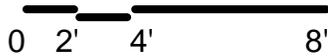
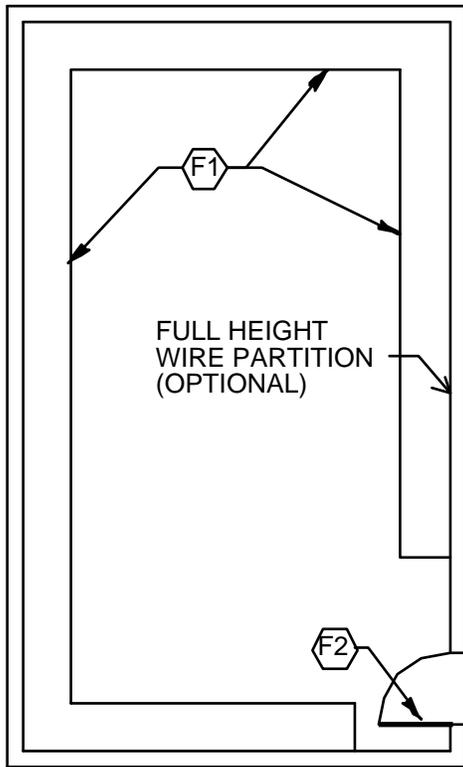
<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Polished concrete finishing, or colored concrete finishing	033510 033519	F1 Student lockers	105113 062000
Optional: Linoleum or rubber	096500 096516	F3 24" x 60" mirror	102813
<u>Base:</u>		<u>Fire Suppression:</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 8600-4	
		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.

**TOOL CRIB
CT-P7-6**

CHAPTER 6: CAREER-TECHNICAL SCHOOL



PROGRAM ACTIVITIES:

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

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes

CAPACITY:
SIZE:
ANCILLARY SPACES:

N/A
550 SF

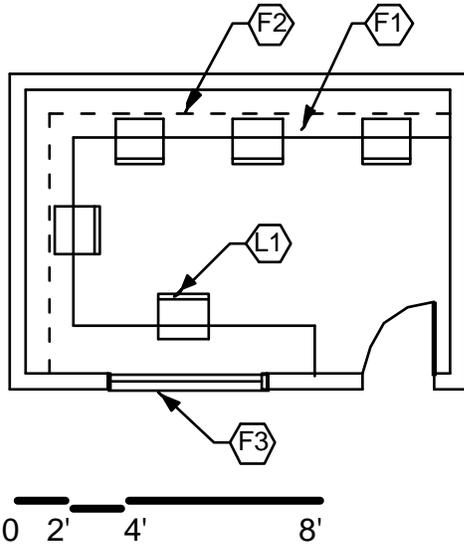
NOTES:

**TOOL CRIB
CT-P7-6**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Cure and seal concrete	033000	F1 80' of open metal shelving (total),	
Optional: linoleum, or rubber	096500	Depth may vary (fixed or loose)	105613
	096516	F2 Dutch door	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		Exhaust air system	Div. 23
	042000 / 099100	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 8600-4	
		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:

- Uniform lighting
- Sanitary and durable finishes
- Environmental sound control
Wall minimum STC 50
Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
200 SF

NOTES:

**REFERENCE ROOM
CT-P7-7**
CHAPTER 6: CAREER-TECHNICAL SCHOOL

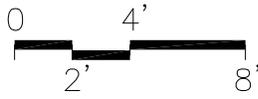
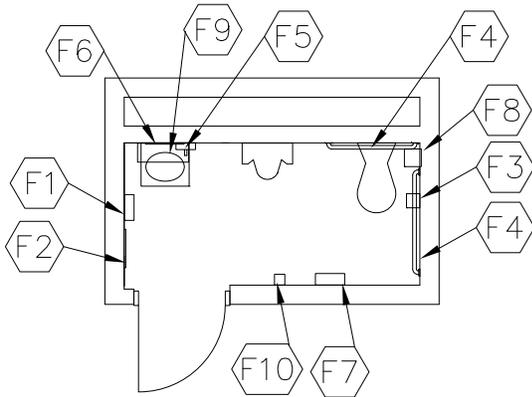
	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Cure and seal concrete	033000	F1 34' of plastic laminate counter	062000
Optional: Rubber	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113/ 088000
Base:		<u>Fire Suppression:</u>	
Resilient 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 8600-4	
		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.

**TOILET ROOM
CT-P7-8**

CHAPTER 6: CAREER-TECHNICAL SCHOOL



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:

- Uniform lighting
- 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. Ref.#		Spec. Ref.#
<u>FINISHES</u>¹:		<u>FEATURES</u>¹:	
Polished concrete finishing	033510	<u>Fixed Items:</u>	
or colored concrete finishing	033519	F1 Towel dispenser	102813
Optional: <i>Rubber</i>	096500	F2 24" x 60" mirror	102813
		F3 Toilet tissue holder	102813
Base:		F4 36" and 42" grab bars	102813
Resilient base	096500	F5 Soap dispenser	102813
		F6 16" x 24" mirror	102813
Ceiling:		F7 Sanitary product dispenser	102813
Suspended, acoustical	095113	F8 Sanitary product receptacle	102813
		F9 Stainless steel shelf (optional)	102813
Walls:		F10 Coat hook	102813
Painted concrete masonry units	042000 / 099100		
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
<u>LOOSE FURNISHINGS</u>			
Wastebaskets		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
		Individual temperature control	230923
		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		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.