Modified DACUM Research Chart
Building Maintenance Trades Technician
CIP 46.0401

DACUM Panel
Representing 286 years of experience in the building maintenance field

Kenny Adams, Owner
Adams Contracting, Corry, PA

Rod Curtis, Owner
Corry Kitchen and Bath, Corry, PA

Mike Munsee, Director of Buildings & Grounds
Corry Area School District, Corry, PA

Dennis O’Toole, Maintenance Foreman
Warren County School District, Warren, PA

Del VonVolkenburg, Facility Manager
Erie County Technical School, Erie, PA

Scott Webb, Facility Maintenance Instructor
Erie County Technical School, Erie, PA

Tom Willis, Owner
Willis Appliance and Electrical, Corry, PA

Facilitator and Observers

Jan Kennerknecht, DACUM Facilitator
Kennerknecht Consulting, Edinboro, PA

Susan Barra, Supervisor of Vocational Education, Corry Area School District CTE Center, Corry, PA

Mike Daniels, Co-op Coordinator, Corry Area School District Career & Technical Education Center, Corry, PA

Brock Jacquith, Building Maintenance Trades Teacher
Corry Area School District CTE Center, Corry, PA

Robert Smith, Co-op/TANF Instructor
Warren County School District, Warren, PA

Sponsored by
Corry Area School District Career & Technical Education Center

Produced by
Kennerknecht Consulting

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**Worker Behaviors**

Motivated  
Team player  
Professional  
Positive attitude  
Performs as expected  
Supportive to other workers  
Honest  
On time  
Has good hygiene  
Good attitude toward learning  
Drug free  
Willing to ask questions  
Collaborates  
Situationally aware  
Accepts current job expectations  
Knows limitations  
Shows initiative  
Ambitious  
Attention to detail  
Busy, doesn’t stand around, looks for next task  
Intuitive  
Responsible  
Provides feedback  
Learns from constructive criticism  
Appreciates employment, customers, other team workers  
Open to mentorship  
Customer-friendly, service-oriented

**Skills**

Communication skills  
Interpersonal skills  
Soft skills  
Problem solving skills  
Leadership skills

**Trends**

Inflation  
Employee shortages  
Green technology and materials  
Social sensitivities (i.e., LGBTQ)  
ADA compliance  
Mental health  
National divide between politics and COVID-19  
Aging-specific home modifications (ADA)  
New technology  
Smart buildings  
Backup power generators  
Solar energy  
Indoor air quality  
Sanitation  
Energy conservation  
Fixtures are less repairable  
Unavailable parts  
Longer lead times

**Future Directions**

More industry participation with trade schools  
Collaboration between industry and schools (i.e., Ford offering college ACE program to sponsor tuition for college programs)  
Paying entry-level employees sign-on bonuses  
Apprenticeship programs will be available for all career paths in this field. - Pipefitters, Steamfitters, Plumbing, Carpentry, etc., tuition reimbursement, more will become available.  
Increase in automation

**General Knowledge**

Use of skill saws, drills (hand tools)  
General workplace safety/accident prevention  
Safe use of tools  
Battery operated tools  
Recognizes cost of tools  
Tool maintenance  
Knowledge of work ethics  
Knowledge of what is expected of workers (what to have ready, when to report)  
Knowledge of parts  
Tool identification  
Ratios  
Reading a tape measure  
Basic math  
Reading ability
Concerns

Prices of material  Scheduling
Supply chain problems  COVID and politics
Skilled employees  Estimating pricing accuracy
Adapting to COVID  Labor rates
Employee shortage  Phones
Communication skills with co-workers/customers  Soft skills
Meeting customer expectations  Work Ethics

Certifications Recommended

Certifications for High School Students:
OSHA 10
American Ladder Institute (4 certifications online)
Forklift Safety
Discussion of Lead and Asbestos Safety
(awareness)

Certifications for Adult Employees:
Adult education completion certificates
Wastewater certification (i.e., DEP)
Drinking water certification
Completion of staff development trainings
Lead Safety certification (state program)
Asbestos hazard
Pesticide (Dept. of Agriculture)
Radon detection, Lead in Water

Other Recommendations for Program

Consider teaching about water-proof membrane for tile work.
Use sand and lime with water for concrete work projects.
Include a lesson on metal clad cable.
Talk about residential Romex, motor controls. These may be learned in post-secondary programs.
The mezzanine you have is important for adding workstations and space for instruction/practice.

Industry Advice for Students

Kenny Adams, “Be respectful to everyone. You never know where a job opportunity is going to come up.”

Rod Curtis, “Be knowledgeable with computers and technology in the field. Workshops are helpful. Focus on learning the tricks of the trade.”

Brock Jacquith, “Pay attention and work hard.”

Mike Munsee, “You are going to run our country. You are our future. Take advantage of the education you receive here.”

Dennis O’Toole, “Never quit learning. Keep up with your trade. Read magazines like Electrical Construction & Maintenance (EC&M). Stay up to date with changes. Take classes at night school, travel and don’t be resistant to new technology.”

Robert Smith, “Under promise and over deliver.”

Del VonVolkenburg, “Take advantage of the opportunities that are presented to you.”
Scott Webb, “Even if you are not confident, don’t be afraid to try.”

Tom Willis, “Be honest. Do what you say you’re going to do. Have good ethics.”

**Job Titles and Future Opportunities for Graduates of the Building Maintenance Trades Program**
(Some will require further education and experience)

- Building Maintenance Trades Technician
- Tool Crib Attendant
- Building Custodian
- Parts Technician
- Plumbing/Electrical Warehouse Worker
- Laborer
- Custom Tile Worker
- Countertop Fabricator/Installer
- Glass Repairer/Installer
- Apprentice
- Carpenter
- Electrician
- Plumber
- Steamfitter
- Machine Maintenance/Repair Worker
- Entry-level Maintenance Worker
- PennDOT Worker
- Drywall Installer/Finisher
- Framer
- Roofer
- Estimator
- Mason
- Trim Specialist
- Finish Carpenter
- Landscape Designer
- Architectural Designer
- Interior Designer
- Project Manager
- Business Owner
- Architect
- Building Engineer
- Director of Buildings and Grounds
- Post-Secondary Student
- General Contractor
- Facility Manager
- Post-Secondary Instructor
- CTE Teacher
- Purchaser

**Acronyms**

- ACE – Automotive Career Exploration
- ADA – Americans with Disabilities Act
- AFCI - Arc Fault Circuit Interrupter
- BPM – Building Property Maintenance
- BTU – British Thermal Unit
- COVID - Coronavirus Disease
- CTE – Career and Technical Education
- DACUM – Developing a Curriculum
- DEP – Department of Environmental Protection
- EIFS - Exterior Insulation Finishing System
- GFCI - Ground Fault Circuit Interrupter
- IAQ – Indoor Air Quality
- LED – Light Emitting Diode
- LGBTQ - Lesbian, Gay, Bisexual, Transgender and Queer or Questioning
- NEC – National Electrical Code
- OSHA – Occupational Safety and Health Administration
- PennDOT – Pennsylvania Department of Transportation
- PEX - Cross-linked Polyethylene
- PPE – Personal Protection Equipment
- PVC - Polyvinyl Chloride

*See attached Pennsylvania Program of Study Task Grid for additional tasks added by local industry experts. The Corry Area School District Career & Technical Education Center would like to thank this dedicated panel of building maintenance professionals for providing their expertise. All input will be analyzed for program improvement.*