

**GRANTS REPORT
2014-2015**

Fund	Grant	Purpose/Priorities	Amount
Mass Executive Office of Administration and Finance	Vocational Opportunity Challenge	To provide one time funding to qualifying institutions to purchase equipment for new and expanding vocational programs and strengthens partnerships between school districts and related industries and institutions of higher education by offering innovative educational programs to support a range career fields to prepare the next generation of skilled workers.	\$94,279.00

These funds have been awarded to Worcester Technical High School

Bares, Gregg

From: Dodd, Tim (ANF) <tim.dodd@massmail.state.ma.us>
Sent: Tuesday, June 03, 2014 12:55 PM
To: Dodd, Tim (ANF)
Subject: VOC Grant Press Rease
Attachments: VOC Announcement 2014.jpg

Thank you to those of you who were able to make it into Boston today! Below, please find the press release that went out after the event, along with a photo of recipients, legislators, and administration officials who were in attendance.

Thanks!

Tim

From: Kelly, Meghan M. (ANF)
Sent: Tuesday, June 03, 2014 12:05 PM
Subject: Patrick Administration Announces \$1.3 Million in Grants to Expand Vocational Programs

FOR IMMEDIATE RELEASE
6/3/2014

Contact: Alex Zaroulis (ANF) 617-727-2040 ext. 35488,
Meghan Kelly (ANF) 617-727-2040 ext. 35457

Patrick Administration Announces \$1.3 Million in Grants to Expand Vocational Programs

School Equipment Grant will provide more opportunities for hands-on learning and academic, career success for students

Boston – June 3, 2014 - Massachusetts Secretary for Administration and Finance Glen Shor, Secretary of Education Matthew Malone and Secretary of Labor and Workforce Development Rachel Kaprielian today announced \$1.3 million in grants to expand vocational programs to prepare students for modern workforce demands. The announcement, made at the State House today, was attended by vocational school leaders and state and local officials.

This second round of grants through the Patrick Administration's Vocational Opportunity Challenge (VOC) grant program, provides one-time funding to qualifying institutions to purchase equipment for new and expanding vocational programs, and encourages and strengthens partnerships between school districts and related industries and institutions of higher education by offering innovative educational programs to support a range of career fields to prepare the next generation of skilled workers.

"The VOC program demonstrates the Patrick Administration's commitment to investing in the future of the Commonwealth," said Secretary Shor. "Through this program we are providing students with skills and tools to succeed academically and in the workplace."

The VOC program will provide funding to 34 projects at unique school districts across the Commonwealth in ten occupational areas: Agriculture and Natural Resources; Arts and Communications; Business and Consumer Services; Construction; Early Education and Care; Health Services; Hospitality and Tourism; Information Technology; Manufacturing, Engineering and Technology; and Transportation.

In total, 2,212 students across 216 cities and towns will participate in programs that receive grant funding through this initiative. The announcement builds on the successful first year of the program which provided \$1.1 million in VOC grants. In the two year history of the program, the Patrick Administration has provided \$2.4 million in funding to a total of 58 programs.

“This program not only helps provide technical training for students in ten targeted areas, but it also is designed to meet the workforce needs of businesses across industries and regions of the Commonwealth,” said Secretary Kaprielian.

“We know that hands on training better prepares our students for scenarios they will experience in the work place,” said Secretary Malone. “We are working hard to improve access to career readiness programs and by affording schools, faculty and their students with opportunities to practice on industry relevant equipment we are helping more students to succeed.”

All of the Commonwealth’s regional vocational school districts applied for grant funding, as did 70 percent of all schools in Massachusetts with Chapter 74-approved vocational programs.

“Creating quality workforce development opportunities for emerging careers in our innovation economy is crucial to the economic stability of the Commonwealth. Graduates of vocational technical schools must be prepared with the cutting edge skills for the workplace of the future,” said David Ferreira, Executive Director of MAVA. “The VOC Grant Program provides support for securing needed state of the art equipment. We continue to be most appreciative of this funding stream provided by the leadership of the Patrick Administration.”

Secretaries Shor, Malone and Kaprielian joined Ferreira and other vocational school leaders in celebrating the second round of grants last week during the Career, Vocational, Technical and Agricultural Education Summit, hosted at the DCU Center in Worcester by the Worcester Regional Chamber of Commerce and the Massachusetts Association of Vocational Administrators (MAVA).

The Patrick Administration is dedicated to preparing its future workers for careers in the 21st century economy. This competitive grant program that benefits Massachusetts vocational schools is funded through a \$5 million investment in the Administration’s Five-Year Capital Investment Plan. The VOC Program provides grant funding to qualifying institutions to purchase necessary equipment at their facilities. Each year for three years, recipients are required to report on program outcomes, such as the number of students completing the program and the number of graduates placed in related industry jobs or attending institutions of higher education in Massachusetts.

For more information on the program, please visit: www.mass.gov/ANF/VOCGrants.

Fiscal year 2014 VOC Grant Program Recipients:

SCHOOL DISTRICT	PROGRAM FUNDED	FUNDING AMOUNT
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COMMONWEALTH OF MASSACHUSETTS ~ STANDARD CONTRACT FORM

This form is jointly issued and published by the Executive Office for Administration and Finance (ANF), the Office of the Comptroller (CTR) and the Operational Services Division (OSD) as the default contract for all Commonwealth Departments when another form is not prescribed by regulation or policy. Any changes to the official printed language of this form shall be void. Additional non-conflicting terms may be added by Attachment. Contractors may not require any additional agreements, engagement letters, contract forms or other additional terms as part of this Contract without prior Department approval. Click on hyperlinks for definitions, instructions and legal requirements that are incorporated by reference into this Contract. An electronic copy of this form is available at www.mass.gov/osc under Guidance For Vendors - Forms or www.mass.gov/osd under OSD Forms.

CONTRACTOR LEGAL NAME: Worcester Public Schools (and d/b/a):		COMMONWEALTH DEPARTMENT NAME: Executive Office for Administration and Finance MMARS Department Code: ANF	
Legal Address: (W-9, W-4, T&C): 20 Irving Street Worcester, MA 01609		Business Mailing Address: Massachusetts State House Room 373 Boston, MA 02133	
Contract Manager: Gregory Bares E-Mail: baresg@worc.k12.ma.us		Billing Address (if different): Contract Manager: Tim Dodd	
Phone: 508 799 3108	508 799 8158	E-Mail: tim.dodd@state.ma.us	
Contractor Vendor Code: VC6000192145		Phone: (617)-727-2040 ext. 35405	Fax:
Vendor Code Address ID (e.g. "AD001"): AD_001 (Note: The Address Id Must be set up for EFT payments.)		MMARS Doc ID(s): RFR/Procurement or Other ID Number:	
<input checked="" type="checkbox"/> NEW CONTRACT PROCUREMENT OR EXCEPTION TYPE: (Check one option only) <input type="checkbox"/> Statewide Contract (OSD or an OSD-designated Department) <input type="checkbox"/> Collective Purchase (Attach OSD approval, scope, budget) <input checked="" type="checkbox"/> Department Procurement (includes State or Federal grants 815 CMR 2.00) (Attach RFR and Response or other procurement supporting documentation) <input type="checkbox"/> Emergency Contract (Attach justification for emergency, scope, budget) <input type="checkbox"/> Contract Employee (Attach Employment Status Form, scope, budget) <input type="checkbox"/> Legislative/Legal or Other: (Attach authorizing language/justification, scope and budget)		<input type="checkbox"/> CONTRACT AMENDMENT Enter Current Contract End Date <u>Prior</u> to Amendment: ____, 20__ Enter Amendment Amount: \$ _____. (or "no change") AMENDMENT TYPE: (Check one option only. Attach details of Amendment changes.) <input type="checkbox"/> Amendment to Scope or Budget (Attach updated scope and budget) <input type="checkbox"/> Interim Contract (Attach justification for Interim Contract and updated scope/budget) <input type="checkbox"/> Contract Employee (Attach any updates to scope or budget) <input type="checkbox"/> Legislative/Legal or Other: (Attach authorizing language/justification and updated scope and budget)	
The following COMMONWEALTH TERMS AND CONDITIONS (T&C) has been executed, filed with CTR and is incorporated by reference into this Contract. <input checked="" type="checkbox"/> Commonwealth Terms and Conditions <input type="checkbox"/> Commonwealth Terms and Conditions For Human and Social Services			
COMPENSATION: (Check ONE option): The Department certifies that payments for authorized performance accepted in accordance with the terms of this Contract will be supported in the state accounting system by sufficient appropriations or other non-appropriated funds, subject to intercept for Commonwealth owed debts under 815 CMR 9.00. <input type="checkbox"/> Rate Contract (No Maximum Obligation. Attach details of all rates, units, calculations, conditions or terms and any changes if rates or terms are being amended.) <input checked="" type="checkbox"/> Maximum Obligation Contract Enter Total Maximum Obligation for total duration of this Contract (or <u>new Total</u> if Contract is being amended). \$ <u>94,279.00</u>			
PROMPT PAYMENT DISCOUNTS (PPD): Commonwealth payments are issued through EFT 45 days from invoice receipt. Contractors requesting accelerated payments must identify a PPD as follows: Payment issued within 10 days __% PPD; Payment issued within 15 days __% PPD; Payment issued within 20 days __% PPD; Payment issued within 30 days __% PPD. If PPD percentages are left blank, identify reason: __agree to standard 45 day cycle __ statutory/legal or Ready Payments (G.L.c. 29, § 23A); __ only initial payment (subsequent payments scheduled to support standard EFT 45 day payment cycle. See Prompt Pay Discounts Policy.)			
BRIEF DESCRIPTION OF CONTRACT PERFORMANCE or REASON FOR AMENDMENT: (Enter the Contract title, purpose, fiscal year(s) and a detailed description of the scope of performance or what is being amended for a Contract Amendment. Attach all supporting documentation and justifications.) This award is being made through the Vocational Opportunity Challenge (VOC) grant program, authorized by 801 CMR 54.00, adopted by the Secretary for Administration and Finance and under the authority of St. 2008, c.304, sec.2C, item 1100-3001.			
ANTICIPATED START DATE: (Complete ONE option only) The Department and Contractor certify for this Contract, or Contract Amendment, that Contract obligations: <input checked="" type="checkbox"/> 1. may be incurred as of the <u>Effective Date</u> (latest signature date below) and <u>no</u> obligations have been incurred <u>prior</u> to the <u>Effective Date</u> . <input type="checkbox"/> 2. may be incurred as of ____, 20__, a date <u>LATER</u> than the <u>Effective Date</u> below and <u>no</u> obligations have been incurred <u>prior</u> to the <u>Effective Date</u> . <input type="checkbox"/> 3. were incurred as of ____, 20__, a date <u>PRIOR</u> to the <u>Effective Date</u> below, and the parties agree that payments for any obligations incurred prior to the <u>Effective Date</u> are authorized to be made either as settlement payments or as authorized reimbursement payments, and that the details and circumstances of all obligations under this Contract are attached and incorporated into this Contract. Acceptance of payments forever releases the Commonwealth from further claims related to these obligations.			
CONTRACT END DATE: Contract performance shall terminate as of <u>June 30</u> , 2017, with no new obligations being incurred after this date unless the Contract is properly amended, provided that the terms of this Contract and performance expectations and obligations shall survive its termination for the purpose of resolving any claim or dispute, for completing any negotiated terms and warranties, to allow any close out or transition performance, reporting, invoicing or final payments, or during any lapse between amendments.			
CERTIFICATIONS: Notwithstanding verbal or other representations by the parties, the "Effective Date" of this Contract or Amendment shall be the latest date that this Contract or Amendment has been executed by an authorized signatory of the Contractor, the Department, or a later Contract or Amendment Start Date specified above, subject to any required approvals. The Contractor makes all certifications required under the attached <u>Contractor Certifications</u> (incorporated by reference if not attached hereto) under the pains and penalties of perjury, agrees to provide any required documentation upon request to support compliance, and agrees that all terms governing performance of this Contract and doing business in Massachusetts are attached or incorporated by reference herein according to the following hierarchy of document precedence, the applicable <u>Commonwealth Terms and Conditions</u> , this Standard Contract Form including the <u>Instructions and Contractor Certifications</u> , the Request for Response (RFR) or other solicitation, the Contractor's Response, and additional negotiated terms, provided that additional negotiated terms will take precedence over the relevant terms in the RFR and the Contractor's Response only if made using the process outlined in 801 CMR 21.07, incorporated herein, provided that any amended RFR or Response terms result in best value, lower costs, or a more cost effective Contract.			
AUTHORIZING SIGNATURE FOR THE CONTRACTOR: X: <u>Melinda J. Boone</u> , Date: <u>6.2.14</u> (Signature and Date Must Be Handwritten At Time of Signature)		AUTHORIZING SIGNATURE FOR THE COMMONWEALTH: X: _____, Date: _____ (Signature and Date Must Be Handwritten At Time of Signature)	
Print Name: <u>Melinda J. Boone, Ed.D.</u>		Print Name: _____	
Print Title: <u>Superintendent</u>		Print Title: _____	

Attleboro Public Schools	Graphic Communications	\$25,000
Blackstone Valley Regional Vocational Technical School District	Machine Tool Technology	\$99,070.25
Blue Hills Regional Vocational Technical School District	Machine Tool Technology	\$25,000
Boston Public Schools	Carpentry	\$100,000
Essex North Shore Agricultural Technical School District	Graphic Communications	\$44,063
Franklin County Regional Technical School District	Cosmetology	\$4,800
Fall River Public Schools	Graphic Communications	\$16,900
Greater Fall River Regional Vocational Technical School District	Machine Tool Technology	\$50,000
Greater Lowell Regional Vocational Technical School District	Graphic Communications	\$43,992.50
Martha's Vineyard Regional School District	Health Assisting	\$14,000
Medford Public Schools	Engineering	\$36,300
Minuteman Regional Vocational Technical School District	Automotive Technology	\$70,295
Montachusett Regional Vocational Technical School District	Health Services	\$42,490
Nashoba Regional Vocational Technical School District	Engineering	\$24,148
Northeast Metropolitan Regional Vocational Technical School District	Drafting	\$35,335
Northern Berkshire Regional Vocational Technical School District	Metal Fabrication and Joining Technologies	\$43,303
Old Colony Regional Vocational Technical School District	Culinary	\$25,000
Pathfinder Regional Vocational Technical School District	Horticulture	\$21,000
Pittsfield Public Schools	Health Assisting	\$12,950
Plymouth Public Schools	Programming and Web Development	\$17,288
Salem Public Schools	Culinary	\$25,000
Silver Lake Regional School District	Horticulture	\$23,747.10
Smith Vocational and Agricultural School	Manufacturing	\$39,203
Somerville Public Schools	Graphic Communications	\$25,000
South Middlesex Regional Vocational Technical School	Culinary Arts	\$25,000

District		
South Shore Regional Vocational Technical School District	Electrical	\$33,796
Springfield Public Schools	Early Childhood Education	\$24,931.96
Tantasqua Regional School District	Drafting	\$23,924
Tri-County Regional Vocational Technical School District	Engineering	\$68,037.50
Upper Cape Regional Vocational Technical School District	Environmental Science and Technology	\$61,346
Westfield Public Schools	Programming and Web Development	\$25,000
Weymouth Public Schools	Carpentry	\$14,277.60
Whittier Regional Vocational Technical School District	Machine Tool Technology	\$75,030
Worcester Public Schools	Precision Machining	\$94,279

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Meghan Kelly
 Deputy Communications Director
 Executive Office of Administration and Finance
 State House Room 373
 (617) 727-2040 Ex. 35457
 (617) 727-4006 Ex. 31464
 Cell: 617-549-3976



Haas Factory Outlet

A Division of Trident Machine Tools, Inc.

PROPOSAL

Number BKBWQ1163

Date Mar 25, 2014

Sold To
Worcester Vocational High School (Technic)
1 Skyline Dr
Worcester, MA 01605-2885

Brian Cummings
Phone 508-799-1980
Fax

Ship To
Worcester Vocational High School (Technic)
1 Skyline Dr
Worcester, MA 01605-2885

Brian Cummings
Phone 508-799-1980
Fax

Salesperson	Terms	FOB
Bill Weir	20% down net 10	Oxnard, CA

Qty	Part Number	Description	Unit Price	Ext. Price
1	TL-1	CNC/Manual Tool room Lathe; 16" x 29" (406 x 737 mm) max capacity, 16" (406 mm) swing, 7.5 hp (5.6 kW) vector drive, 2000 rpm, A2-5 spindle, Intuitive Programming System, 1 MB program memory, memory lock key switch, 15" color LCD monitor and USB port. No work holding, tool post or tool holders included. Enclosure required for CE compliance.	\$27,995.00	\$27,995.00
1	MC8-5	8" (203 mm) Manual 3-Jaw Scroll Chuck; hard top reversible jaws, A2-5 mount	\$1,295.00	\$1,295.00
1	MTS	Manual Tailstock, MT4 manual quill	\$1,995.00	\$1,995.00
1	TP3/4	Quick-Change Tool Post; 2 position, 4 each 3/4" turn/face, 1 each 1.0" boring bar holder and T-nut	\$995.00	\$995.00
1	CSMD	Control Simulator Module; dual software (mill and lathe), LCD display, USB port, slim dimensions; only 7" (178 mm) deep.	\$1,695.00	\$1,695.00
1	ATS	5C dead length collet closer	\$2,874.00	\$2,874.00
1	EW-S	Haas CNC machines are backed by a standard 12-month limited warranty covering defects in material and workmanship. An additional 1-year extended warranty may be purchased at any time before the original warranty expires.	\$6,195.00	\$6,195.00
1		In-kind donation (education disc, free CSMD, EWV-1 and tooling cert disc)	-\$14,732.00	-\$14,732.00
1		Cross Country Freight and Local Rigging	\$4,264.00	\$4,264.00

790 Marshall Phelps Rd.
Windsor, CT 06095
PH: 860-687-2466
Fax: 860-687-2477

Qty	Part Number	Description	Unit Price	Ext. Price
1		\$5,000 Kennametal Tooling Cert.	\$5,000.00	\$5,000.00
			Total	\$37,576.00

790 Marshall Phelps Rd.
Windsor, CT 06095



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Number BKBWQ1162

Date Mar 25, 2014

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Worcester, MA 01605-2885

Brian Cummings
Phone 508-799-1980
Fax

Ship To
Worcester Vocational High School (Technic)
1 Skyline Dr
Worcester, MA 01605-2885

Brian Cummings
Phone 508-799-1980
Fax

Salesperson	Terms	FOB
Bill Weir	20% down net 10	Oxnard, CA

Qty	Part Number	Description	Unit Price	Ext. Price
1	TM-1P	Tool room Mill with Tool Changer; 30" x 12" x 16" (762 x 305 x 406 mm), 40 taper, 7.5 hp (5.6 kW) vector drive, 6000 rpm, full enclosure, 10-station automatic tool changer, Intuitive Programming System, 1 MB program memory, memory lock key switch, 15" color LCD monitor and USB port and 5-gallon (19 liter) flood coolant system.	\$35,995.00	\$35,995.00
1	AUGER	Our auger-style chip conveyor automatically removes chips from the machine while compressing them and wringing out the coolant. The system automatically reverses if a jam occurs.	\$2,595.00	\$2,595.00
1	PCOOL	The Programmable Coolant Nozzle is a multi-position nozzle that automatically directs coolant precisely at the cutting tool. The position of the nozzle is controlled via the program, saving operator time by eliminating constant adjustments. The nozzle position may also be adjusted manually from the control pendant.	\$1,595.00	\$1,595.00
1	4AXD	Allows the use of a fully integrated 4th-axis Haas rotary table or indexer for multi-sided machining, yielding increased productivity and reduced setups.	\$1,995.00	\$1,995.00
1	HFP-TM	Upgrades the standard 1/8 hp (93 W) coolant pump to a 3/4 hp (0.6 kW) high-flow coolant pump, 5.25 gpm @ 30 psi (19.9 L/min @ 2 bar); M-code or keypad activated; includes Loc-Line hose and shut-off valve.	\$1,395.00	\$1,395.00
1	RTAP-3	Synchronized tapping eliminates the need for expensive, floating tap holders, and prevents lead-thread distortion and start-thread pullout.	\$1,395.00	\$1,395.00
1	HA5C	5C Collet Servo Rotary Head with Manual Collet Closer. Requires Haas mill with 4th-axis drive for full 4th-axis operation, or a rotary control box for stand-alone operation.	\$6,995.00	\$6,995.00
1	CSMD	Control Simulator Module; dual software (mill and lathe), LCD display, USB port, slim dimensions; only 7" (178 mm) deep.	\$1,695.00	\$1,695.00

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Qty	Part Number	Description	Unit Price	Ext. Price
1	WIPS-R	Wireless Intuitive Probing System; Renishaw wireless tool-setting probe and Renishaw wireless work offset probe; includes macros, spindle orientation and coordinate rotation and scaling	\$5,495.00	\$5,495.00
1	EW-S	Haas CNC machines are backed by a standard 12-month limited warranty covering defects in material and workmanship. An additional 1-year extended warranty may be purchased at any time before the original warranty expires.	\$6,195.00	\$6,195.00
1		Cross Country Freight and Local Rig	\$4,862.00	\$4,862.00
1		In-kind donation (educational disc, free CSMD and EW-S and tooling cert disc)	-\$18,509.00	-\$18,509.00
1		\$5000 Kennametal Tooling Cert.	\$5,000.00	\$5,000.00
Total				\$56,703.00

790 Marshall Phelps Rd.
 Windsor, CT 06095
 PH: 860-687-2466
 Fax: 860-687-2477

Vocational Program Equipment Grant

50539815

APPLICATION

SECTION 1: PROGRAM INFORMATION

Vocational program:

Precision Machining & CNC Automation (Machine Technology)

Amount requested:

\$94,279.00

Lead applicant:

Worcester Technical High School – Worcester Public Schools

Lead applicant primary contact:

Name: Kyle Brenner, Director of Career and Technical Education
Name of school: Worcester Technical High School
Phone number: (508) 799-1940
Email address: brennerk@worc.k12.ma.us

Lead applicant secondary contact:

Name: Gregory Bares, Manager of Grant Resources
Name of school: Worcester Public Schools
Phone number: (508) 799-3108
Email address: baresg@worck.12.ma.us

Check type of participating entities:

Vocational Program Equipment Grant

APPLICATION

- Regional vocational school district
- Vocational program within a single community school district
- Vocational program within a regional school district

Other Grant Programs

Please check if this program has previously received grants from:

- Massachusetts Life Sciences Center
- Massachusetts Clean Energy Center

SECTION 2: PARTNERSHIPS

Industry Partners:

Include any industry partners providing a monetary or an in-kind match.

- Haas Automation, Inc. - \$33,241.00 in-kind donation of educational discs, free CSMD, EWV-1 and tooling cert discs for use in the department with the new CNC Tool Lathe and CNC Tool Mill
- Peterson Steel Corporation - \$13,000 material donation for use with the new CNC equipment
- Manufacturing Advancement Center (MACWIC) - \$90,000.00 in-kind donation of curriculum in a box to be used in the program for students to be prepared for the MACWIC Pre-apprenticeship program certification
- Siemens PLM NX Software - \$72,610,920.00 in-kind donation of Siemens PLM software to be used with the advanced manufacturing equipment
- SME Prime School Designation - \$45,000.00 donation spread over the next three years to partner with local manufacturing for mentoring, tours of businesses, internships, post-secondary scholarships and training.

Vocational Program Equipment Grant

APPLICATION

Education Partners:

Include any community colleges or other education partners and describe their involvement in the program.

- Massachusetts Manufacturing Extension Partnership (MassMEP), Quinsigamond Community College (QCC), and Worcester Polytechnic Institute (WPI), have partnered with Worcester Technical High School (WTHS) to provide an Applied Manufacturing Technology Pathway. Students participating in the WTHS Precision Machining program will be exposed to curriculum developed by Manufacturing Advancement Center that will prepare them with the skills to acquire a job in Manufacturing Technology Pathway from Entry Level(assemblers, warehouse) to Middle Skills(Machinists, Management).
- The Skills in this pathway include mathematics, print reading, quality inspection, safety, work readiness, Lean Manufacturing, CNC Mill, CNC Lathe, programming, 100 hours of advanced manufacturing at WPI, Mastercam, Resume, Interviewing, ethics, Certificate of Applied Manufacturing Technology (26 credits from QCC) Associate Degree in Manufacturing Technology at QCC.

SECTION 3: EQUIPMENT USAGE

Name and Description of the Equipment to be Purchased:

Qty. 1 - Haas CNC/Toolroom Mill (Model TM-1P with options)

Vocational Program Equipment Grant

APPLICATION

Qty. 1 - Haas CNC/Toolroom Lathe (Model TL-1 with options)

Equipment Use:

Provide a detailed description of how your school plans to utilize the equipment.

New CNC Machines are needed to ensure our program maintains the increasing demands of remaining current in this area and to advance the modernization of our Precision Machining and CNC Automation program. The purchase of these machines will align our curriculum with both Massachusetts Curriculum Frameworks, and MACWIC Pre-Apprentice Certification. The current equipment consists primarily of old manual style Bridgeport machines and limited CNC or simulated CNC (on a training module) equipment. Access for students to the existing advanced CNC machine is limited as only a couple students can work on one project at a time. The addition of these two new CNC machines will greatly enhance the exposure of current and future students to Advanced Manufacturing technologies within the high school environment.

These machines will be used to both attract and retain students in the Precision Machine program. Students will learn the latest skills and be more prepared to enter the workforce upon graduation and or continue along the Advanced Manufacturing Pathway in post-secondary education. Additionally, these new machines will allow a greater number of students the opportunity to learn, hone, and apply advanced manufacturing competencies to their senior capstone projects. These projects, done their senior year, incorporate elements of their chosen career applied towards a project that will leave the community a better place.

SECTION 4: FINANCIAL INFORMATION

Budget:

Include the estimated cost of the equipment as well as the source for the cost, e.g. catalogue or vendor quote.

Vocational Program Equipment Grant

APPLICATION

\$94,279.00 – as quoted by Haas Automation (includes in-kind grants/discounts from Haas Automation).

Other funds raised or leveraged to support training programs

Describe any other funds that will be used to support training programs. This may include funds that are currently part of your operating budget or plans to seek out additional grants or other funding opportunities.

In addition to the in-kind donation from Haas Automation as part of this purchase, our Precision Machining & CNC Automation program has secured in-kind grants and supplies from the following:

- Siemens PLM Software (\$72,610,902.00) *in-kind donation of Siemens PLM software to be used with the advanced manufacturing equipment*
- SME Prime School Designation Grant (\$45,000.00 paid over 3 years) *donation spread over the next three years for use to partner with local manufacturing businesses for mentoring, tours of businesses, internships, post-secondary scholarships and training.*
- Peterson Steel Corporation Material Donation (\$13,000.00) raw material to be used with the new CNC machines
- MACWIC "Curriculum-in-a-box" & "LearnCNC" Grant *in-kind donation of curriculum in a box & LearnCNC to be used in the program for students to be prepared for the MACWIC Pre-apprenticeship program certification*

Current year program budget, including the use the equipment:

Current annual operating budget for the program is \$5000.00

Vocational Program Equipment Grant

APPLICATION

Proposed budget for the program receiving the equipment:

In addition to the \$5,000.00 annual budget, the program will receive a portion of \$15,000.00 annually over the next three years. Also, the donation of \$13,000.00 worth of raw material is projected to last for the next two years. The new HAAS equipment will come with a manufacturer's warranty covering the first year of placement. Subsequently, the equipment will be put on an annual maintenance program as is current equipment. WTHS does not anticipate any additional budget requirement for the placement of this equipment.

SECTION 5: CURRICULUM

Curriculum of the Program:

Describe the proposed curriculum for the program, including whether it has been approved by DESE.

- The program is designed to meet the MA DESE Vocational Technical Education (VTE) frameworks for Machine Technology. The addition of the 'Curriculum in a Box' and 'LearnCNC' curriculum from MACWIC was designed in concert with the MA DESE VTE frameworks for Machine Technology and will provide students the best opportunity to acquire the needed skills for successful placement in the realm of Advanced Manufacturing.
- The designed curriculum provides related coursework that is fully integrated with academic standards in English Language Arts, Mathematics, and Science. Additionally the shop work is project based hand-on learning where students can apply their skills on real-world community based projects. Throughout this STEM based curriculum students are exposed to work readiness, technology, safety, and entrepreneur/business management competencies to fully prepare them for college and or careers.

Vocational Program Equipment Grant

APPLICATION

Students entering the program:

Projected number of students entering the program.

While the Precision Machining program has an average between 5 to 10 students entering the program annually, the addition of this equipment in conjunction with the newly designed and acquired curriculum/software, as well as the recognition as a Society of Manufacturing Engineers (SME) PRIME site, it is projected to increase new enrollment to between 10 to 15 students a year. We are currently undergoing a major push in seeking out and enrolling non-traditional students in this program. WTHS, on the advice of the Program Advisory Committees composed of business/industry, post-secondary education, and community advisors, has realigned Precision Machining, with several other technical programs to create an Advanced Manufacturing Cluster where students can obtain competencies in each of the areas yet specialize (major) in one. Students in the Computer Aided Design and Drafting, Electromechanical/Robotics and Automation, and Metal Fabrication programs will be working with Precision Machining in this new Advanced Manufacturing Cluster. This added equipment will help facilitate this new initiative as well as offer valuable skills to all 130+ students that comprise the Advanced Manufacturing Cluster.

Number of students completing the program:

Projected number of students completing the program.

All students entering the Advanced Manufacturing Cluster programs will be eligible to participate with this program. The number of students enrolled in the Advanced Manufacturing Cluster programs equates to 131 total students. There will be 27 students completing the programs this year. As previously stated, Precision Machining enrolls on average 5-10 students annually. With the addition of this equipment as well as the realignment of programs, it is anticipated that the number of students enrolling in Precision Machining will rise two-fold.

Certification or degree achieved as a result of the program:

Vocational Program Equipment Grant

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- Machine Technology Diploma/Certificate
- MACWIC Pre-Apprentice Certificate
- OSHA 10 Hour General Industry Card

Placement of graduates in related employment fields:

Approximately 50 percent of the graduates were employed in the manufacturing field. The balance went on to two-year and/or four year post-secondary education programs.

Placement of graduates in post-secondary programs:

Approximately 50 percent of the graduates enrolled in post-secondary education.

Retention of skilled graduates in Massachusetts:

In accordance with MA DESE regulations for Chapter 74 Career Vocational Technical Education, WTHS tracks all graduates at the time of graduation as well as one year following graduation. From this data, 100 percent of the students in this program remained in Massachusetts.

SECTION 6: SUSTAINABILITY

Sustainability plan:

Describe your school's plan to continue to fund the program and conduct annual maintenance on the equipment.

The Precision Machining & CNC Automation program is preparing students in

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accordance with MA Curriculum Frameworks and MA Division of Standards – Pre-Apprentice curriculum requirements.

This program continues to create and develop opportunities, often resulting in funding support by achieving the following:

- Grant opportunities in the advanced manufacturing fields
- SME PRIME Site award of \$45,000.00 over the next three years
- A dedicated Advisory Board that identifies funding/partnership opportunities
- Collaboration with post-secondary institutions for use of the Precision Machining program equipment for after school training of low-skilled adults
- Collaboration with community based and higher-ed institutions for design and production of community service products/projects. Examples of past and continuing projects include the redesign of the City of Worcester Key to the City. The Precision Machining students reverse engineered the original Key to the City, enhanced it with up-to-date details and now manufacture every Key given to visiting dignitaries. Similarly, the students designed and produced an award presented by the City Manager to all community partners. Students from the program worked with engineering students from Worcester Polytechnic Institute, University of Ghent (Belgium) and New York Polytech to manufacture key structural components for their modular Solar home that was entered into the US DOE Solar Decathlon that took place in Datong, China. This recent collaboration afforded six advanced manufacturing students from WTHS to travel to Datong and work alongside the engineering students to reconstruct the modular solar home and compete in this elite international event. This has led to many more collaborations.
- Lastly, the WPS district is committed to funding this program to continue to build upon and strengthen this pathway to fill the need for skilled machinists in Massachusetts. A recent restructuring of the Precision Machining, Computer Aided Design and Drafting,

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Electromechanical/Robotics Automation Technology, Welding and Metal Technology and Sheet Metal fabrication programs into an Advanced Manufacturing Cluster will allow each of these individual programs to share resources, and collaborate more easily on integrated projects that will cross train students as well as round out their knowledge of all manufacturing processes.

Staffing:

Describe the credentials, qualifications, experience, and expertise of faculty and instructors who will be utilizing the equipment.

All Precision Machining instructors are – DESE Licensed Machine Technology Instructors with over 50+ combined years of industry/teaching experience working with CAD/CAM/CNC. Additionally, the instructors have worked closely with MassMEP, MACWIC, area business/industry and post-secondary institutions to advance their programs and partnerships.

Training:

Describe your plans to train untrained staff on the use of the equipment.

Administration is committed to providing and ensuring appropriate training & professional development to ensure the program and instructor(s) can deliver the most educational benefit to the students of this new equipment. Through the recent receipt of the SME PRIME site designation, funds have become available for teacher training. Another source of training has been acquired through the designation of WTHS as a STEM Early Career and College Innovation School. This innovation status has provided WTHS the autonomy needed to get CVTE instructors the much needed specialized training and externships to remain licensed and current in their fields. Lastly, the purchase of this equipment includes an in-kind donation of educational discs as does the in-kind donation of the Siemens PLM software and MACWIC curriculum.

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SECTION 7: BENEFITS AND NEED

Equipment Need:

Describe the need for the equipment, as referenced by indicators such as the interest in this type of program and the lack of equipment in this particular curriculum area.

Worcester Technical High School has been recognized as an SME Prime School site. With this recognition, we are committed to offering advanced manufacturing and CNC training. It is our intent to provide this training through current state of the art technology, professional development, and industry partnerships. The Precision Machining & CNC Automation program is supported by a dedicated Program Advisory Committee. This Program Advisory Committee has reviewed and recommended an upgrade of current equipment to the new CNC style advanced Mill and Lathe to replace outdated manual style equipment as well as to supplement the limited CNC training module.

Numerous studies have been completed indicating the need for skilled machinist to replace the aging workforce as well as fill the many new jobs created through the re-homing of manufacturing as the high cost of fuel for transportation and the lack of a highly skilled workforce drive companies back to America.

Benefits:

Describe the benefits that will be realized through the use of this equipment.

Our Precision Machining and CNC Automation program will benefit greatly with the purchase of this equipment to instruct students using the most up-to-date technology, supporting industry in their demands to hire highly qualified graduates. This new equipment will help provide that pathway for students to achieve completion of the MA Curriculum Frameworks and MA Pre-Apprentice Certification through accredited testing. It will raise the number of students who

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can enter the program from 5 to 15.

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SUPPORT DOCUMENTATION FORM

Project Title: Advancement in Manufacturing (AIM)

Lead applicant primary contact:

First Name, Last Name: Kyle Brenner

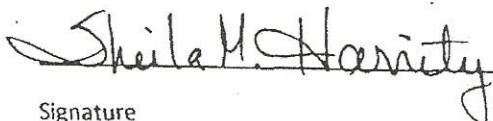
Name of Municipality, School, RPA or COG: Worcester Public Schools

Phone Number: (508) 799-1940

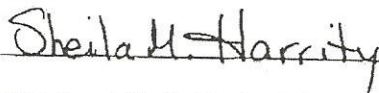
Email Address: brennerk@worc.k12.ma.us

List all participating entities:

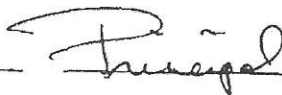
Sign on behalf of the Applicants: As evidence of commitment to the proposed project, applicants must submit documentation of signoff from the superintendent, director, or equivalent of each entity. Original signatures are required.



Signature



Print Name: Sheila Harrity, Ed.D.



Entity: Worcester Technical

Title: Principal

Signature



Print Name: Kyle Brenner

Entity: Worcester Public Schools

Title: Dir. Career/Vocational Ed.

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Melinda J. Boone

Signature

Entity: Worcester Public Schools

Print Name: Melinda J. Boone, Ed.D.

Title: Superintendent