




August 19, 2013

## MEMORANDUM

**TO:** District Board of Trustees  
**FROM:** Jim Murdaugh, President   
**SUBJECT:** Guaranteed Maximum Price - Organic Chemistry Lab Remodeling

---

### Item Description

This item requests that the Board of Trustees approve the Guaranteed Maximum Price for the Organic Chemistry Lab Remodeling at the Science and Math Building on the Main Campus.

### Overview and Background

In 2012 the Foundation for TCC pledged \$1,000,000 to fund remodeling of the Science Labs at the Main Campus. The project has two phases. The first phase was to remodel several rooms in the former Health Sciences area in Building 11 to provide new Anatomy & Physiology Labs and two new Physics Labs. This work was completed at a final construction cost of \$170,543.52 by Childers Construction Co.

Relocation of the Anatomy & Physiology Labs and Physics Labs to Building 11 provides room in the Science and Math Building 18 to construct a new Organic Chemistry Lab. Childers Construction Co. has prepared a Guaranteed Maximum Price of \$633,168 to complete the work. TCC Facilities Planning staff have reviewed the proposal and recommend approval.

### Past Actions by the Board

The District Board of Trustees previously approved a Guaranteed Maximum Price proposal for mechanical system replacement in the Science Math Annex in June of 2012.

### Funding/Financial Implications

Funds for this project will be provided by the Foundation for TCC.

### Staff Resource

Teresa Smith

### Recommended Action

Approve the Guaranteed Maximum Price from Childers Construction, Inc. for the Organic Chemistry Lab remodel in the amount of \$633,168.00.

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description   | Takeoff Quantity | Labor Unit Cost | LABOR         | Material Cost/Unit | MATERIAL     | Sub Unit Cost | SUBCONTRACT  | SUBCONTRACTOR  | TOTAL         |
|---|------------------|-----------------|---------------|--------------------|--------------|---------------|--------------|----------------|---------------|
| <b>DIVISION 1 - CONSTRUCTION STAFF</b>                              |                  |                 |               |                    |              |               |              |                |               |
| Project Manager   | 7.0 week         | 1,800.00        | 12,600        | -                  | -            | -             | -            | -              | 12,600        |
| Superintendent  | 14.0 week        | 1,200.00        | 16,800        | -                  | -            | -             | -            | -              | 16,800        |
| Project Engineer  |                  |                 | -             | -                  | -            | -             | -            | -              | -             |
| PRT&I Field Staff   | 27,600.0 \$      | 0.45020         | 12,426        | -                  | -            | -             | -            | -              | 12,426        |
|   |                  |                 | <b>41,826</b> |                    |              |               |              |                | <b>41,826</b> |
| <b>DIVISION 1 - GENERAL CONDITIONS</b>                              |                  |                 |               |                    |              |               |              |                |               |
| Temp Electrical Hookup - BY OWNER                                   |                  |                 |               |                    |              |               |              |                |               |
| Monthly Electrical Service - BY OWNER                               |                  |                 |               |                    |              |               |              |                |               |
| Communications. Phone & Cellular                                    | 3.0 mo           |                 | -             | 75.00              | 225          |               | -            |                | 225           |
| Temp Toilets  | 3.0 mo           |                 | -             | 90.00              | 270          |               | -            |                | 270           |
| Office Supplies   | 3.0 mo           |                 | -             | 100.00             | 300          |               | -            |                | 300           |
| Small Tools & Consumables   | 3.0 mo           |                 | -             | 250.00             | 750          |               | -            |                | 750           |
| Barricade/Dust Partition  | 400.0 sf         | 0.41            | 164           | 2.25               | 900          |               | -            |                | 1,064         |
| Final Utilities - BY OWNER  |                  |                 |               |                    |              |               |              |                |               |
| Building Permit - BY TCC  |                  |                 |               |                    |              |               |              |                |               |
| Locate & Mark Hollow Core Tendons for Sawcuts                       | 2.0 day          |                 |               |                    |              | 1,600.00      | 3,200        |                | 3,200         |
|   |                  |                 | <b>164</b>    |                    | <b>2,445</b> |               | <b>3,200</b> |                | <b>5,809</b>  |
| <b>DIVISION 1 - GENERAL TRADES</b>                                  |                  |                 |               |                    |              |               |              |                |               |
| Site Cleanup Labor  | 12.0 week        | 480.00          | 5,760         | 100.00             | 1,200        |               | -            |                | 6,960         |
| Final Cleaning  | 11.0 msf         |                 | -             | -                  | -            | 400.00        | 4,400        |                | 4,400         |
| Waste Disposal. 40 Yard Roll Off Container                          | 10.0 haul        |                 | -             | 265.00             | 2,650        |               | -            |                | 2,650         |
| PRT&I Labor   | 5,220.0 \$       | 0.36710         | 1,916         |                    | -            |               | -            |                | 1,916         |
|   |                  |                 | <b>7,676</b>  |                    | <b>3,850</b> |               | <b>4,400</b> |                | <b>15,926</b> |
| <b>DIVISION 2 - DEMOLITION</b>                                      |                  |                 |               |                    |              |               |              |                |               |
| BP 2A - SELECTIVE DEMOLITION  | 1.0 LS           |                 |               |                    |              |               | 12,900       | Great Southern | 12,900        |
| - Sawcut HC Slab for New Openings                                   | 80.0 lf          |                 |               |                    |              |               | -            |                |               |
| - 8" Core Drill HC Slab @ 7" Fume Duct                              | 2.0 ea           |                 |               |                    |              |               | -            |                |               |
| - 12" Core Drill HC Slab @ 10" Fume Duct                            | 4.0 ea           |                 |               |                    |              |               | -            |                |               |
| - Remove HC Slab  | 90.0 sf          |                 |               |                    |              |               | -            |                |               |
| - Demo CMU Wall   | 720.0 sf         |                 |               |                    |              |               | -            |                |               |
| - Demo CMU Wall for New Door Opening                                | 1.0 ls           |                 |               |                    |              |               | -            |                |               |
| - Remove Base Cabinet w/Resin Countertop - Salvage for use by owner | 10.0 lf          |                 |               |                    |              |               | -            |                |               |
| - Demo Wall Cabinet   | 1.0 ea           |                 |               |                    |              |               | -            |                |               |
| - Remove Lab Table  | 1.0 ea           |                 |               |                    |              |               | -            |                |               |
| - Remove Instructor's Workstation - Salvage for use by owner        | 1.0 ea           |                 |               |                    |              |               | -            |                |               |

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description   | Takeoff Quantity | Labor Unit Cost | LABOR | Material Cost/Unit | MATERIAL | Sub Unit Cost | SUBCONTRACT   | SUBCONTRACTOR       | TOTAL         |
|---|------------------|-----------------|-------|--------------------|----------|---------------|---------------|---------------------|---------------|
| - Remove Lab Casework - Salvage for use by owner              | 8.0 ea           |                 |       |                    |          |               |               |                     |               |
| - Remove Existing Door & Frame - Reuse or turn over to Owner  | 3.0 ea           |                 |       |                    |          |               |               |                     |               |
| - Remove Existing Floor Finishes                              | 1,990.0 sf       |                 |       |                    |          |               |               |                     |               |
| - Demo Acoustical Ceiling                                     | 255.0 sf         |                 |       |                    |          |               |               |                     |               |
| - Remove Chalkboard - Salvage for use by Owner                | 2.0 ea           |                 |       |                    |          |               |               |                     |               |
| - Remove Projection Screen - Salvage for use by Owner         | 2.0 ea           |                 |       |                    |          |               |               |                     |               |
|   |                  |                 |       |                    |          |               | <b>12,900</b> |                     | <b>12,900</b> |
| <b>DIVISION 2 - DEMOLITION</b>                                |                  |                 |       |                    |          |               |               |                     |               |
| <b>DIVISION 3 - CONCRETE</b>                                  |                  |                 |       |                    |          |               |               |                     |               |
| CONCRETE  | 1.0 LS           |                 |       |                    |          | 1,800.00      | 1,800         |                     | 1,800         |
| - Dry Pack Grout for HC Support @ CMU Bearing Walls           | 2.0 ea           |                 |       |                    |          |               | -             |                     |               |
| - Fill Existing 2nd Floor Plumbing Penetrations               | 10.0 ea          |                 |       |                    |          |               | -             |                     |               |
| - Patch 2nd Floor @ CMU Wall Demo                             | 50.0 lf          |                 |       |                    |          |               | -             |                     |               |
| - Housekeeping pad for AHU not - NOT REQUIRED                 |                  |                 |       |                    |          |               | -             |                     |               |
|   |                  |                 |       |                    |          |               | <b>1,800</b>  |                     | <b>1,800</b>  |
| <b>DIVISION 3 - CONCRETE</b>                                  |                  |                 |       |                    |          |               |               |                     |               |
| <b>DIVISION 4 - MASONRY</b>                                   |                  |                 |       |                    |          |               |               |                     |               |
| MASONRY   | 1.0 LS           |                 |       |                    |          | 4,000.00      | 4,000         | Phinney Masonry     | 4,000         |
| - Patch Walls @ Intersection Wall Demo                        | 120.0 sf         |                 |       |                    |          |               | -             |                     |               |
| - Prep New Opening for Relocated Door & Frame                 | 1.0 ea           |                 |       |                    |          |               | -             |                     |               |
| - Prep Existing Opening for Relocated Door & Frame            | 1.0 ea           |                 |       |                    |          |               | -             |                     |               |
|   |                  |                 |       |                    |          |               | <b>4,000</b>  |                     | <b>4,000</b>  |
| <b>DIVISION 4 - MASONRY</b>                                   |                  |                 |       |                    |          |               |               |                     |               |
| <b>DIVISION 5 - METALS</b>                                    |                  |                 |       |                    |          |               |               |                     |               |
| SUPPORT HC DECK @ NEW OPENING                                 | 1.0 LS           |                 |       |                    |          | 3,610.00      | 3,610         | Tallahassee Welding | 3,610         |
|   |                  |                 |       |                    |          |               | <b>3,610</b>  |                     | <b>3,610</b>  |
| <b>DIVISION 5 - METALS</b>                                    |                  |                 |       |                    |          |               |               |                     |               |
| <b>DIVISION 6 - WOOD &amp; PLASTICS</b>                       |                  |                 |       |                    |          |               |               |                     |               |
| BP-6A LAB CASEWORK - BASE BID                                 | 1.0 LS           |                 |       |                    |          | 34,829.00     | 34,829        | Newton Seating      | 34,829        |
| BP-6A LAB CASEWORK - ALTERNATE #1 - ADD 4TH STUDENT HOOD BASE | 1.0 LS           |                 |       |                    |          | 7,388.00      | 7,388         | Newton Seating      | 7,388         |
| - New Base Cabinet w/Resin Countertop                         | 40.0 lf          |                 |       |                    |          |               | -             |                     |               |
| - Existing Base Cabinet w/Resin Countertop - Relocated        | 10.0 lf          |                 |       |                    |          |               | -             |                     |               |
| - Student Ventilation Stations                                | 3.0 ea           |                 |       |                    |          |               | -             |                     |               |
| - Student Wash Station  | 1.0 ea           |                 |       |                    |          |               | -             |                     |               |
|   |                  |                 |       |                    |          |               | <b>42,217</b> |                     | <b>42,217</b> |
| <b>DIVISION 6 - WOOD &amp; PLASTICS</b>                       |                  |                 |       |                    |          |               |               |                     |               |
| <b>DIVISION 7 - THERMAL &amp; MOISTURE</b>                    |                  |                 |       |                    |          |               |               |                     |               |
| USED EXISTING HOOD EXHAUST PENTHOUSE                          | -                |                 |       |                    |          |               | -             |                     | -             |
| WATERPROOFING @ HOLLOWCORE PENETRATIONS                       | 1.0 LS           |                 |       |                    |          | 1,200.00      | 1,200         |                     | 1,200         |
|   |                  |                 |       |                    |          |               | <b>1,200</b>  |                     | <b>1,200</b>  |
| <b>DIVISION 7 - THERMAL &amp; MOISTURE</b>                    |                  |                 |       |                    |          |               |               |                     |               |

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description   | Takeoff Quantity | Labor Unit Cost | LABOR | Material Cost/Unit | MATERIAL | Sub Unit Cost | SUBCONTRACT   | SUBCONTRACTOR        | TOTAL         |
|---|------------------|-----------------|-------|--------------------|----------|---------------|---------------|----------------------|---------------|
| <b>DIVISION 8 - DOORS &amp; WINDOWS</b>             |                  |                 |       |                    |          |               |               |                      |               |
| DOORS, HARDWARE & SPECIALTIES                       | 1.0 LS           |                 |       |                    |          | 2,933.00      | 2,933         | Door Products        | 2,933         |
| - 6070 HM Door Frame                                | 1.0 ea           |                 |       |                    |          |               | -             |                      |               |
| - 3070 HM Door Leaf                                 | 2.0 ea           |                 |       |                    |          |               | -             |                      |               |
| - 3070 SC Wood Door & Frame - Reuse Existing        | 2.0 ea           |                 |       |                    |          |               | -             |                      |               |
| - Door Hardware. Single. Interior w/Closer          | 2.0 ea           |                 |       |                    |          |               | -             |                      |               |
| - Door Hardware. Double. Interior                   | 1.0 ea           |                 |       |                    |          |               | -             |                      |               |
| - Marker Boards - 4' x 12'                          | 2.0 ea           |                 |       |                    |          |               | -             |                      |               |
| - Access Hatch - 3' x 4'                            | 1.0 ea           |                 |       |                    |          |               | -             |                      |               |
|   |                  |                 |       |                    |          |               | <b>2,933</b>  |                      | <b>2,933</b>  |
| <b>DIVISION 9 - FINISHES</b>                        |                  |                 |       |                    |          |               |               |                      |               |
| BP-9A DRYWALL & ACOUSTICAL CEILINGS                 | 1.0 LS           |                 |       |                    |          | 13,775.00     | 13,775        | Specialty Contractor | 13,775        |
| - P-2 Mit Stud Wall x 14'h + GWB2s + Insul          | 12.0 lf          |                 |       |                    |          |               | -             |                      |               |
| - GWB Soffit @ New 4' Fume Hoods                    | 40.0 sf          |                 |       |                    |          |               | -             |                      |               |
| - Frame, Deck & Insulation Mech Rm Roof Opening     | 80.0 sf          |                 |       |                    |          |               | -             |                      |               |
| - Bulkhead @ 4' Fume Hoods                          | 24.0 lf          |                 |       |                    |          |               | -             |                      |               |
| - Acoustical Ceilings                               | 1,830.0 sf       |                 |       |                    |          |               | -             |                      |               |
| BP-9B FLOORING SYSTEMS                              | 1.0 LS           |                 |       |                    |          | 3,848.00      | 3,848         | Carpet One           | 3,848         |
| - VCT Flooring in Lab in lieu of Sheet Vinyl        | 1,680.0 sf       |                 |       |                    |          |               | -             |                      |               |
| - Misc VCT Patching                                 | 1.0 ls           |                 |       |                    |          |               | -             |                      |               |
| - Rubber Base                                       | 430.0 lf         |                 |       |                    |          |               | -             |                      |               |
| - Misc Vinyl Base Repairs                           | 430.0 lf         |                 |       |                    |          |               | -             |                      |               |
| - Skim Coat Floor                                   | 1,680.0 sf       |                 |       |                    |          |               | -             |                      |               |
| WAX VCT   | 1.0 LS           |                 |       |                    |          | 700.00        | 700           |                      | 700           |
| BP-9C PAINTING & SEALANTS                           | 1.0 LS           |                 |       |                    |          | 2,000.00      | 2,000         | Marlin Coatings      | 2,000         |
| - Painting, Drywall, Interior Latex, Primer         | 400.0 sf         |                 |       |                    |          |               | -             |                      |               |
| - Painting, Drywall, Interior Latex, 2 Coats Finish | 400.0 sf         |                 |       |                    |          |               | -             |                      |               |
| - Painting, Masonry, Interior Latex, Primer         | 100.0 sf         |                 |       |                    |          |               | -             |                      |               |
| - Painting, Masonry, Interior Latex, 2 Coats Finish | 2,600.0 sf       |                 |       |                    |          |               | -             |                      |               |
| - Painting, Doors, Oil Based, 2 Coats Finish        | 130.0 sf         |                 |       |                    |          |               | -             |                      |               |
| - Painting, Doors, Stain + 2 Coats Varnish          | 50.0 sf          |                 |       |                    |          |               | -             |                      |               |
|   |                  |                 |       |                    |          |               | <b>20,323</b> |                      | <b>20,323</b> |
| <b>DIVISION 9 - FINISHES</b>                        |                  |                 |       |                    |          |               |               |                      |               |
| <b>DIVISION 10 - SPECIALTIES</b>                    |                  |                 |       |                    |          |               |               |                      |               |
| See Division 8                                      |                  |                 |       |                    |          |               |               |                      |               |
| <b>DIVISION 10 - SPECIALTIES</b>                    |                  |                 |       |                    |          |               |               |                      |               |
| <b>DIVISION 11 - EQUIPMENT</b>                      |                  |                 |       |                    |          |               |               |                      |               |

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description  | Takeoff Quantity | Labor Unit Cost | LABOR | Material Cost/Unit | MATERIAL | Sub Unit Cost | SUBCONTRACT   | SUBCONTRACTOR     | TOTAL         |
|--|------------------|-----------------|-------|--------------------|----------|---------------|---------------|-------------------|---------------|
| PROJECTION SCREEN w/ELEC OPERATOR - BY OWNER               |                  |                 |       |                    |          |               |               |                   |               |
| BP-11A FUME HOODS  | 1.0 LS           |                 |       |                    |          | 38,530.00     | 38,530        | Laboratory Design | 38,530        |
| - 4' Waste Fume Hood                                       | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - 6' Student Fume Hood                                     | 6.0 ea           |                 |       |                    |          |               | -             |                   |               |
|  |                  |                 |       |                    |          |               | <b>38,530</b> |                   | <b>38,530</b> |
| <b>DIVISION 11 - EQUIPMENT</b>                             |                  |                 |       |                    |          |               |               |                   |               |
| <b>DIVISION 15 - PLUMBING</b>                              |                  |                 |       |                    |          |               |               |                   |               |
| BP-15B PLUMBING - BASE BID                                 | 1.0 LS           |                 |       |                    |          | 68,600.00     | 68,600        | Scott-Burnett     | 68,600        |
| BP-15B PLUMBING - ALTERNATE #1 - ADD 4TH STUDENT HOOD BASE | 1.0 LS           |                 |       |                    |          | 11,200.00     | 11,200        | Scott-Burnett     | 11,200        |
| BP-15B PLUMBING - USE CPVC ACID WASTE IN LIEU OF GLASS     | 1.0 LS           |                 |       |                    |          | (14,800.00)   | (14,800)      | Scott-Burnett     | (14,800)      |
| - Plumbing Demolition                                      |                  |                 |       |                    |          |               | -             |                   |               |
| . Remove Countertop Dbl Sink                               | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Remove Lab Sink  | 9.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Remove Emergency Eyewash                                 | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Cap Existing Air, Water & Gas Piping                     | 24.0 pts         |                 |       |                    |          |               | -             |                   |               |
| - Acid Waste Piping  |                  |                 |       |                    |          |               | -             |                   |               |
| . 4" CPVC Piping   | 6.0 lf           |                 |       |                    |          |               | -             |                   |               |
| . 3" CPVC Piping   | 80.0 lf          |                 |       |                    |          |               | -             |                   |               |
| . 2" CPVC Piping   | 70.0 lf          |                 |       |                    |          |               | -             |                   |               |
| . Glass Piping Tie-in @ Existing                           | 4.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Gas System   |                  |                 |       |                    |          |               | -             |                   |               |
| . 3/4" Gas Piping  | 200.0 lf         |                 |       |                    |          |               | -             |                   |               |
| . Fume Hood Gas Turret                                     | 8.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Gas Emergency Shutoff Valve                              | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Vents  |                  |                 |       |                    |          |               | -             |                   |               |
| . 2" CPVC VTR Piping                                       | 43.0 lf          |                 |       |                    |          |               | -             |                   |               |
| . 2" Vent Thru Roof  | 2.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Water Supply   |                  |                 |       |                    |          |               | -             |                   |               |
| . 1 1/4" Tie-in @ Existing w/valve                         | 1.0 ls           |                 |       |                    |          |               | -             |                   |               |
| . 1 1/4" Water Piping                                      | 30.0 lf          |                 |       |                    |          |               | -             |                   |               |
| . 1 1/4" Shutoff Valve w/valve box                         | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . 3/4" Water to Hoods & Sinks                              | 140.0 lf         |                 |       |                    |          |               | -             |                   |               |
| - Fume Hood Fixtures                                       |                  |                 |       |                    |          |               | -             |                   |               |
| . Cup Sinks (provided by hood mfr)                         | 18.0 ea          |                 |       |                    |          |               | -             |                   |               |
| . Faucets  | 34.0 ea          |                 |       |                    |          |               | -             |                   |               |
| - Relocated Fixtures                                       |                  |                 |       |                    |          |               | -             |                   |               |
| . Relocate Existing Dbl Sink                               | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . New Single Supply Faucet @ Relocated Sink                | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Wash Station Fixtures                                    |                  |                 |       |                    |          |               | -             |                   |               |

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description  | Takeoff Quantity | Labor Unit Cost | LABOR | Material Cost/Unit | MATERIAL | Sub Unit Cost | SUBCONTRACT   | SUBCONTRACTOR     | TOTAL         |
|--|------------------|-----------------|-------|--------------------|----------|---------------|---------------|-------------------|---------------|
| . 19"x 31" 304 SS Sink                                     | 2.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Faucets  | 4.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Sink Drain   | 2.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Bottle Gas System  | -                |                 |       |                    |          |               | -             |                   |               |
| . Valve/Check Valve/Regulator/Gauge/Filter for Bottled Gas | 4.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Air Shutoff Valve  | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Emergency Shutoff Valve Box                              | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . H Gas Shutoff Valve                                      | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . HE Gas Shutoff Valve                                     | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . N Gas Shutoff Valve                                      | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| . Wall Brackets & Securing Chain                           | 1.0 ls           |                 |       |                    |          |               | -             |                   |               |
| - Spectrometer 1/2" N Piping w/Valve & Box                 | 20.0 lf          |                 |       |                    |          |               | -             |                   |               |
| - Chromatograph 1/2" Air Piping w/Valve & Box              | 20.0 lf          |                 |       |                    |          |               | -             |                   |               |
| - Chromatograph 1/2" H Piping w/Valve & Box                | 20.0 lf          |                 |       |                    |          |               | -             |                   |               |
| - Chromatograph 1/2" HE Piping w/Valve & Box               | 20.0 lf          |                 |       |                    |          |               | -             |                   |               |
| - Water Supply to Rotovap System                           | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Water Supply to Undercounter Refrigerator                | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Safety Shower (remains in existing location)             | -                |                 |       |                    |          |               | -             |                   |               |
| - Mechanical Room Hub Drains                               | 2.0 ea           |                 |       |                    |          |               | -             |                   |               |
| <b>DIVISION 15 - PLUMBING</b>                              |                  |                 |       |                    |          |               | <b>65,000</b> |                   | <b>65,000</b> |
| <b>DIVISION 15 - HVAC</b>                                  |                  |                 |       |                    |          |               |               |                   |               |
| BP-15A HVAC - BASE BID                                     | 1.0 LS           |                 |       |                    |          | 211,239.00    | 211,239       | Lang Mechanical   | 211,239       |
| BP-15A HVAC - ADD FLOW METERS                              | 1.0 LS           |                 |       |                    |          | 10,202.00     | 10,202        | Lang Mechanical   | 10,202        |
| BP-15A HVAC - ADD SILENCERS @ EXHAUST FANS 1 & 2           | 1.0 LS           |                 |       |                    |          | 7,487.00      | 7,487         | Lang Mechanical   | 7,487         |
| EXISTING EXHAUST PENTHOUSE MODIFICATIONS (ALLOWANCE)       | 1.0 LS           |                 |       |                    |          | 3,700.00      | 3,700         | Kent Construction | 3,700         |
| - Remove Duct (L.F)  | 875.0 lf         |                 |       |                    |          |               | -             |                   |               |
| - Remove Diffuser/Grille                                   | 28.0 ea          |                 |       |                    |          |               | -             |                   |               |
| - CHWS/CHWR Piping, Sch 40 CS, Insulated                   | 300.0 lf         |                 |       |                    |          |               | -             |                   |               |
| - 1" PVC Condensate Piping                                 | 20.0 lf          |                 |       |                    |          |               | -             |                   |               |
| - HHWS/HHWR Piping, Sch 40 CS, Insulated                   | 300.0 lf         |                 |       |                    |          |               | -             |                   |               |
| - Duct Insulation  | 5,600.0 sf       |                 |       |                    |          |               | -             |                   |               |
| - New 3,950 cfm, 10 ton, AHU-2 w/VSD                       | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Roof Exhaust Fan, centrifugal, direct drive, 470 cfm     | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Roof Exhaust Fan, centrifugal, direct drive, 3,480 cfm   | 1.0 ea           |                 |       |                    |          |               | -             |                   |               |
| - Galv Steel SA Ductwork                                   | 3,000.0 lb       |                 |       |                    |          |               | -             |                   |               |
| - Galv Steel RA Ductwork                                   | 2,500.0 lb       |                 |       |                    |          |               | -             |                   |               |
| - Galv Steel OA Ductwork                                   | 720.0 lb         |                 |       |                    |          |               | -             |                   |               |
| - Secondary Drain Pan                                      | 100.0 lb         |                 |       |                    |          |               | -             |                   |               |

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description                                      | Takeoff Quantity | Labor Unit Cost | LABOR | Material Cost/Unit | MATERIAL | Sub Unit Cost | SUBCONTRACT | SUBCONTRACTOR | TOTAL |
|--|------------------|-----------------|-------|--------------------|----------|---------------|-------------|---------------|-------|
| - SS Fume Hood Ductwork                          | 1,500.0 lb       |                 |       |                    |          |               |             | -             |       |
| - Flexible Ductwork. 6"                          | 50.0 lf          |                 |       |                    |          |               |             | -             |       |
| - Flexible Ductwork.10"                          | 50.0 lf          |                 |       |                    |          |               |             | -             |       |
| - Flexible Ductwork.12"                          | 50.0 lf          |                 |       |                    |          |               |             | -             |       |
| - Volume Damper (average)                        | 7.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Flexible Connection, fabric with metal edge    | 10.0 lf          |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 10" x 10"                          | 4.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 8" x 16"                           | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 16" x 14"                          | 2.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 16" x 16"                          | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 16" x 24"                          | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 20" x 16"                          | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 20" x 12"                          | 3.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 24" x 16"                          | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - OA Damper 22" x 40" Motorized                  | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - RA Damper 20" x 38" Motorized                  | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - SS Ctrl Damper 5" dia                          | 16.0 ea          |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 6" dia                             | 7.0 ea           |                 |       |                    |          |               |             | -             |       |
| - SS Ctrl Damper 7" dia                          | 2.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 10" dia                            | 7.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Ctrl Damper 12" dia                            | 7.0 ea           |                 |       |                    |          |               |             | -             |       |
| - SA Linear Diffuser Type B - 48"                | 28.0 lf          |                 |       |                    |          |               |             | -             |       |
| - SA Linear Diffuser Type C - 48"                | 28.0 lf          |                 |       |                    |          |               |             | -             |       |
| - RA Grille, Type D, 2' x 2'                     | 5.0 ea           |                 |       |                    |          |               |             | -             |       |
| - SA Diffuser Type A - 2' x 2'                   | 7.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Relocate Existing Thermostat                   | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Thermostat                                     | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Flow Meter in 7" Duct                          | 2.0 ea           |                 |       |                    |          |               |             | -             |       |
| - OA Flow Meter                                  | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Duct Smoke Detector                            | 3.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Air Handling Unit                              | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Fume Hood                                      | 7.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Fume Hood Exhaust Fan                          | 2.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Test & Balance. AHU                            | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Test & Balance. VAV Boxes                      | 11.0 ea          |                 |       |                    |          |               |             | -             |       |
| - Test & Balance. Exhaust Fans                   | 6.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Test & Balance. Ex. Exhaust Fans               | 1.0 ea           |                 |       |                    |          |               |             | -             |       |
| - Test & Balance. SA, RA, EA Diffusers & Grilles | 71.0 ea          |                 |       |                    |          |               |             | -             |       |

TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description  | Takeoff Quantity | Labor Unit Cost | LABOR | Material Cost/Unit | MATERIAL | Sub Unit Cost | SUBCONTRACT    | SUBCONTRACTOR   | TOTAL          |
|--|------------------|-----------------|-------|--------------------|----------|---------------|----------------|-----------------|----------------|
| - Chilled Water Balancing (per unit requiring CW)            | 1.0 ls           |                 |       |                    |          |               |                |                 |                |
| <b>DIVISION 15 - HVAC</b>                                    |                  |                 |       |                    |          |               | <b>232,628</b> |                 | <b>232,628</b> |
| <b>DIVISION 16 - ELECTRICAL</b>                              |                  |                 |       |                    |          |               |                |                 |                |
| BP-16A ELECTRICAL - BASE BID                                 | 1.0 LS           |                 |       |                    |          | 52,100.00     | 52,100         | Lawson & Lawson | 52,100         |
| BP-16A ELECTRICAL - ALTERNATE #1 - ADD 4TH STUDENT HOOD BASE | 1.0 LS           |                 |       |                    |          | 2,750.00      | 2,750          | Lawson & Lawson | 2,750          |
| BP-16A ELECTRICAL - LIGHTING FIXTURE UPGRADE                 | 1.0 LS           |                 |       |                    |          | 4,475.00      | 4,475          | Lawson & Lawson | 4,475          |
| - Electrical Demolition (per fixture)                        | 126.0 ea         |                 |       |                    |          |               |                |                 |                |
| - AHU-2 VSD  | 1.0 ls           |                 |       |                    |          |               |                |                 |                |
| - New 125A Adjustable Electronic Circuit Breaker @ MDP       | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - New Panel OCLL - 150A MB 120/208v, 3ph, 4w                 | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - New Panel OCLH - 100A MLO 277/480v, 3ph, 4w                | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - New Attic Mtd 45 KVA Transformer                           | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - \$1 Hood Lighting Switch                                   | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - Ceiling Mtd Receptacle @ Projector                         | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Duplex Receptacle Ice Maker (surf mtd)                 | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Duplex Receptacle (surf mtd)                           | 3.0 ea           |                 |       |                    |          |               |                |                 |                |
| - Duplex GFI Receptacle                                      | 2.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle (surf mtd)                             | 6.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle Spectrometer (surf mtd)                | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle Chromatograph (surf mtd)               | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle Warming Oven (surf mtd)                | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Duplex Receptacle Waste Hood                           | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Duplex Receptacle Reagent Hood                         | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle Student Hood                           | 16.0 ea          |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle @ Refractometer (surf mtd)             | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Table Top Receptacle Student Hood                 | 6.0 ea           |                 |       |                    |          |               |                |                 |                |
| - Relocated XP Receptacle for XP Refrigerator                | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - GFI Quad Receptacle @ Melting Point Apparatus (surf mtd)   | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - AHU-2  | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - Hood Exhaust Fan   | 2.0 ea           |                 |       |                    |          |               |                |                 |                |
| - Exhaust Fan Starter/Disconnects                            | 2.0 ea           |                 |       |                    |          |               |                |                 |                |
| - Transformer Circuit  | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - New 24" x 24" x 6"d NEMA 3R Junction Box @ MDP             | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - New 24" x 24" x 6"d NEMA 3R Junction Box @ Attic           | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - New Attic Mtd 100A/3p Safety Switch                        | 1.0 ea           |                 |       |                    |          |               |                |                 |                |
| - 2"C- (4)#1/0 + (1)#6 Grd - MDP to MDP-JB                   | 20.0 lf          |                 |       |                    |          |               |                |                 |                |
| - 2"C- (4)#1/0 + (1)#6 Grd - MDP-JB to Attic-JB              | 50.0 lf          |                 |       |                    |          |               |                |                 |                |
| - 2"C- (4)#1/0 + (1)#6 Grd - Attic-JB to Panel OCLH          | 140.0 lf         |                 |       |                    |          |               |                |                 |                |



TCC ORGANIC CHEMISTRY LAB  
GMP Revised 7-30-13

| Description  | Takeoff<br>Quantity | Labor Unit<br>Cost | LABOR | Material<br>Cost/Unit | MATERIAL | Sub Unit<br>Cost | SUBCONTRACT   | SUBCONTRACTOR | TOTAL         |
|--|---------------------|--------------------|-------|-----------------------|----------|------------------|---------------|---------------|---------------|
| - 2"C- (4)#1/0 + (1)#6 Grd - Transformer to Panel OCLL                   | 20.0 lf             |                    |       |                       |          |                  |               |               |               |
| - 1"C- (1)#4 Grd - Transformer to Bldg Steel                             | 20.0 lf             |                    |       |                       |          |                  |               |               |               |
| - 3/4"C- (3)#6 + (1)#8 Grd - Panel OCLH to Attic Safety Switch           | 40.0 lf             |                    |       |                       |          |                  |               |               |               |
| - 3/4"C- (3)#6 + (1)#8 Grd - Attic Safety Switch to Transformer          | 10.0 lf             |                    |       |                       |          |                  |               |               |               |
| - Lighting Circuit (EA). 3/4" Conduit 4-#12 600v Conductors + Outlet Box | 63.0 ea             |                    |       |                       |          |                  |               |               |               |
| - Hood Light Fixture / Air Flow Monitor Connection                       | 8.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Type B - 2 x 4 Lensed Troffer 4-T8                                     | 1.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Type A Existing - 1 x 4 Parabolic Troffer 2-T8                         | 42.0 ea             |                    |       |                       |          |                  |               |               |               |
| - Type AE Existing - 1 x 4 Parabolic Troffer 2-T8 w/battery pack         | 4.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Type A New - 1 x 4 Parabolic Troffer 2-T8                              | 10.0 ea             |                    |       |                       |          |                  |               |               |               |
| - Type C - 6" x 4 Strip 2-T8 w/wire guard                                | 6.0 ea              |                    |       |                       |          |                  |               |               |               |
| - New S1 Wall Switch   | 2.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Existing S3 Wall Switch Reused   | 4.0 ea              |                    |       |                       |          |                  |               |               |               |
| - New S4 Wall Switch   | 1.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Circuit. 3/4" Conduit (4)#22 600v Conductors + Outlet Box              | 6.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Smoke Detector   | 1.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Duct Detector  | 1.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Remote Alarm Indicator   | 2.0 ea              |                    |       |                       |          |                  |               |               |               |
| - Emergency Control System   | 1.0 ls              |                    |       |                       |          |                  |               |               |               |
| FIRE SEAL EXISTING THRU WALL CONDUITS                                    | 22.0 ea             |                    |       |                       |          | 50.00            | 1,100         |               | 1,100         |
| RELOCATE EXISTING CONDUITS @ 2nd FLOOR CEILING                           | 160.0 lf            |                    |       |                       |          | 25.00            | 4,000         |               | 4,000         |
| <b>DIVISION 16 - ELECTRICAL</b>  |                     |                    |       |                       |          |                  | <b>64,425</b> |               | <b>64,425</b> |

TCC ORGANIC CHEMISTRY LAB  
 GMP Revised 7-30-13

| Description            | Takeoff<br>Quantity | Labor Unit<br>Cost | LABOR | Material<br>Cost/Unit | MATERIAL | Sub Unit<br>Cost | SUBCONTRACT | SUBCONTRACTOR | TOTAL          |
|------------------------|---------------------|--------------------|-------|-----------------------|----------|------------------|-------------|---------------|----------------|
| <b>Estimate Totals</b> |                     |                    |       |                       |          |                  |             |               |                |
|                        |                     |                    |       |                       |          |                  |             |               | 49,666         |
|                        |                     |                    |       |                       |          |                  |             |               | 6,295          |
|                        |                     |                    |       |                       |          |                  |             |               | 497,166        |
|                        |                     |                    |       |                       |          |                  |             |               | <u>553,127</u> |
|                        |                     |                    |       |                       |          |                  |             |               | 30,000         |
|                        |                     |                    |       |                       |          |                  |             |               | <u>30,000</u>  |
|                        |                     |                    |       |                       |          |                  |             |               | 1,494          |
|                        |                     |                    |       |                       |          |                  |             |               | 1,121          |
|                        |                     |                    |       |                       |          |                  |             |               | 6,180          |
|                        |                     |                    |       |                       |          |                  |             |               | 100            |
|                        |                     |                    |       |                       |          |                  |             |               | <u>8,895</u>   |
|                        |                     |                    |       |                       |          |                  |             |               | 41,146         |
|                        |                     |                    |       |                       |          |                  |             |               | <b>633,168</b> |