

Dover High School  
Design Development Estimate

## ESTIMATE SUMMARY

PC Construction Company  
193 Tilley Drive  
So. Burlington, VT 05403

Date : 5/3/2016  
Project # : 15027  
Duration (in months) : 38  
Size : 310,380 SF

|                                  |              |                     |
|----------------------------------|--------------|---------------------|
| <b>Direct costs</b>              |              | \$67,512,209        |
| Material sales tax               | 0.00%        | \$0                 |
| <b>Gross cost</b>                |              | \$67,512,209        |
| Escalation                       | 0.00%        | \$0                 |
| Gross receipts tax               | 0.00%        | \$0                 |
| Builder's risk insurance         | 0.07%        | \$50,604            |
| Liability insurance              | 0.75%        | \$542,183           |
| Construction manager contingency | 3.00%        | \$2,025,366         |
| P & P Bond                       | \$397,203    | \$397,203           |
| <b>Sub Total</b>                 |              | <b>\$70,527,565</b> |
| <b>CM Fee</b>                    | <b>2.50%</b> | <b>\$1,763,189</b>  |
| <b>Total</b>                     |              | <b>\$72,291,000</b> |

# Dover High School - Design Development



**CONSTRUCTION**

Job #: 15027  
Project Size: 310380 SF  
Recap - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
Group 1: \*Program

| Item Code | Description      | Quantity | UM | Total UnitCost | Total Cost |
|-----------|------------------|----------|----|----------------|------------|
|           | CTC Space        |          |    |                | 13,552,477 |
|           | Non-CTC Space    |          |    |                | 53,959,732 |
|           | Total Gross Cost |          |    |                | 67,512,209 |

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**CONSTRUCTION**

Job #: 15027  
Project Size: 310380 SF  
Recap - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
Group 1: \*Misc Tag

| Item Code | Description                  | Quantity | UM | Total UnitCost | Total Cost |  |
|-----------|------------------------------|----------|----|----------------|------------|--|
|           | Animal Barn/Science Building | 3,609    |    | 331.47         | 1,196,271  |  |
|           | Courtyard                    |          |    |                | 311,951    |  |
|           | High School                  |          |    |                | 65,895,887 |  |
|           | Round Pen                    | 3,899    |    | 27.73          | 108,100    |  |
|           | Total Gross Cost             |          |    |                | 67,512,209 |  |

# Dover High School - Design Development



**CONSTRUCTION**

Job #: 15027  
Project Size: 310380 SF  
Recap - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
Group 1: Major ItemCode Groups

| Item Code | Description                 | Quantity | UM | Total UnitCost | Total Cost |  |
|-----------|-----------------------------|----------|----|----------------|------------|--|
| 00        | PRECONSTRUCTION SERVICES    |          |    |                |            |  |
| 01        | BUILDING DESIGN             |          |    |                |            |  |
| 01        | CM GENERAL CONDITIONS       |          |    |                | 3,582,555  |  |
| 01        | COST OF WORK GEN REQ'S      |          |    |                | 971,561    |  |
| 02        | SITEWORK                    |          |    |                | 10,025,190 |  |
| 03        | CONCRETE                    |          |    |                | 3,386,019  |  |
| 03        | PRECAST CONCRETE            |          |    |                | 12,000     |  |
| 04        | MASONRY                     |          |    |                | 2,831,854  |  |
| 05        | METALS                      |          |    |                | 7,940,999  |  |
| 06        | CARPENTRY                   |          |    |                | 509,822    |  |
| 07        | THERMAL/MOISTURE PROTECTION |          |    |                | 3,108,781  |  |
| 08        | DOORS AND WINDOWS           |          |    |                | 2,871,278  |  |
| 09        | FINISHES                    |          |    |                | 8,174,580  |  |
| 10        | SPECIALTIES                 |          |    |                | 843,785    |  |
| 11        | EQUIPMENT                   |          |    |                | 1,198,152  |  |
| 12        | FURNISHINGS                 |          |    |                | 1,203,703  |  |
| 13        | SPECIAL CONSTRUCTION        |          |    |                | 260,977    |  |
| 14        | CONVEYING SYSTEMS           |          |    |                | 185,000    |  |
| 15        | PLUMBING                    |          |    |                | 2,359,689  |  |
| 15        | FIRE PROTECTION             |          |    |                | 996,951    |  |
| 15        | HVAC                        |          |    |                | 9,249,589  |  |
| 16        | ELECTRICAL                  |          |    |                | 7,799,725  |  |
|           | Total Gross Cost            |          |    |                | 67,512,209 |  |



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 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                                    | Description                                              | Quantity | UM  | Total UnitCost | Total Cost |  |
|----------------------------------------------|----------------------------------------------------------|----------|-----|----------------|------------|--|
| <b>00 - PRECONSTRUCTION SERVICES</b>         |                                                          |          |     |                |            |  |
| <b>ESTIMATING</b>                            |                                                          |          |     |                |            |  |
| 0060.002                                     | Precon Services - N/A (Included under separate contract) |          |     |                |            |  |
| <b>** Total ESTIMATING</b>                   |                                                          |          |     |                |            |  |
| <b>* Total 00 - PRECONSTRUCTION SERVICES</b> |                                                          |          |     |                |            |  |
| <b>01 - BUILDING DESIGN</b>                  |                                                          |          |     |                |            |  |
| <b>BUILDING DESIGN</b>                       |                                                          |          |     |                |            |  |
| 0080.100                                     | ***DESIGN & ENGINEERING FEES BY CITY OF DOVER***         |          |     |                |            |  |
| <b>** Total BUILDING DESIGN</b>              |                                                          |          |     |                |            |  |
| <b>* Total 01 - BUILDING DESIGN</b>          |                                                          |          |     |                |            |  |
| <b>01 - CM GENERAL CONDITIONS</b>            |                                                          |          |     |                |            |  |
| <b>CM GENERAL CONDITIONS</b>                 |                                                          |          |     |                |            |  |
| 0100.000                                     | Mobilize / Demobilize                                    | 1        | LS  | 28,000.00      | 28,000     |  |
| 0100.020                                     | Office Supplies                                          | 155      | WK  | 250.00         | 38,750     |  |
| 0100.030                                     | Office Furniture / Systems                               | 1        | LS  | 48,000.00      | 48,000     |  |
| 0100.040                                     | Engineer's Furniture / Equipment - N/A                   |          | LS  |                |            |  |
| 0100.041                                     | Engineer's Computer / Software - N/A                     |          | LS  |                |            |  |
| 0100.045                                     | Project Kiosk 30" - Purchase                             | 4        | EA  | 5,000.00       | 20,000     |  |
| 0100.060                                     | Janitorial Services                                      | 155      | WK  | 75.00          | 11,625     |  |
| 0100.064                                     | Temporary Wiring                                         | 1        | LS  | 5,000.00       | 5,000      |  |
| 0100.065                                     | Electrical Energy Costs (By Owner)                       |          | MO  | 350.00         |            |  |
| 0100.066                                     | Water Usage Costs                                        | 35       | MO  | 200.00         | 7,000      |  |
| 0100.100                                     | Telephone / Communication                                | 35       | MO  | 900.00         | 31,500     |  |
| 0100.110                                     | Sanitary / Facilities                                    | 35       | MO  | 1,200.00       | 42,000     |  |
| 0110.080                                     | Security / Watchman                                      |          | WK  |                |            |  |
| 0110.120                                     | Photographs                                              |          | MO  |                |            |  |
| 0110.160                                     | Documents & Reproductions                                | 1        | LS  | 15,000.00      | 15,000     |  |
| 0120.002                                     | Estimating - GMP                                         | 1        | LS  | 50,000.00      | 50,000     |  |
| 0120.003                                     | Officer in Charge                                        |          | MW  | 7,000.00       |            |  |
| 0120.005                                     | Construction Executive                                   | 15       | MW  | 5,400.00       | 81,000     |  |
| 0120.008                                     | Senior Project Manager                                   | 59       | MW  | 4,720.00       | 278,480    |  |
| 0120.010                                     | Project Manager                                          | 134      | MW  | 3,800.00       | 509,200    |  |
| 0120.018                                     | Senior Project Engineer                                  |          | MW  | 2,880.00       |            |  |
| 0120.020                                     | Project Engineer                                         | 165      | MW  | 2,400.00       | 396,000    |  |
| 0120.022                                     | Office Engineer                                          | 115      | MW  | 1,920.00       | 220,800    |  |
| 0120.024                                     | Senior Superintendent                                    | 137      | MW  | 4,720.00       | 646,640    |  |
| 0120.025                                     | Project Superintendent                                   | 134      | MW  | 3,720.00       | 498,480    |  |
| 0120.034                                     | Construction Coordination - SCP                          | 52       | MW  | 2,400.00       | 124,800    |  |
| 0120.050                                     | Scheduling Engineer                                      |          | MW  | 2,280.00       |            |  |
| 0120.058                                     | Safety Manager                                           |          | MW  | 3,720.00       |            |  |
| 0120.060                                     | Safety Engineer (2 Days/Week)                            | 57       | MW  | 2,280.00       | 129,960    |  |
| 0120.220                                     | Administration                                           | 132      | MW  | 1,720.00       | 227,040    |  |
| 0130.000                                     | Living Allowance - Management                            | 310      | MWK | 300.00         | 93,000     |  |
| 0130.005                                     | Living Allowance - Foremen                               |          | MWK | 125.00         |            |  |
| 0130.020                                     | Travel and Expenses                                      | 35       | MO  | 600.00         | 21,000     |  |
| 0140.000                                     | Scheduling                                               | 1        | WK  | 2,280.00       | 2,280      |  |
| 0140.200                                     | Permit's & Fee's                                         |          | LS  |                |            |  |
| 0140.205                                     | Building Permit                                          |          | LS  |                |            |  |
| 0140.800                                     | Professional Services                                    |          | LS  |                |            |  |
| 0150.200                                     | Equipment Trucking                                       |          | WK  |                |            |  |
| 0150.250                                     | Off - Site Parking                                       |          | WK  |                |            |  |
| 0150.500                                     | Personnel Elevator                                       |          | MO  |                |            |  |
| 0150.520                                     | Field Office                                             | 38       | TM  | 1,200.00       | 45,600     |  |
| 0150.540                                     | Engineer / Architect Office                              |          | TM  |                |            |  |
| 0150.560                                     | Storage Trailers (2 Trailers)                            | 76       | TM  | 150.00         | 11,400     |  |
| 0160.300                                     | Sub Bonds (Include w/ Subs)                              |          | LS  |                |            |  |



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Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                                  | Description                                                             | Quantity | UM | Total UnitCost | Total Cost       |  |
|--------------------------------------------|-------------------------------------------------------------------------|----------|----|----------------|------------------|--|
| 0180.010                                   | Gross Receipts Tax                                                      |          | LS |                |                  |  |
| 0180.020                                   | Sales Tax                                                               |          | LS |                |                  |  |
| <b>** Total CM GENERAL CONDITIONS</b>      |                                                                         |          |    |                | <b>3,582,555</b> |  |
| <b>* Total 01 - CM GENERAL CONDITIONS</b>  |                                                                         |          |    |                | <b>3,582,555</b> |  |
| <b>01 - COST OF WORK GEN REQ'S</b>         |                                                                         |          |    |                |                  |  |
| <b>COST OF WORK GEN REQ'S</b>              |                                                                         |          |    |                |                  |  |
| 0200.010                                   | Materials Testing                                                       |          | LS |                |                  |  |
| 0200.040                                   | Snow Removal                                                            | 1        | LS | 40,000.00      | 40,000           |  |
| 0200.110                                   | Field Engineering                                                       | 4        | WK | 5,000.00       | 20,000           |  |
| 0200.140                                   | Temporary GWB Partitions                                                |          | SF | 7.80           |                  |  |
| 0200.160                                   | ICRA / ILSM - N/A                                                       |          | LS |                |                  |  |
| 0200.180                                   | Scaffolding - In COW                                                    |          | LS |                |                  |  |
| 0200.200                                   | OSHA / First Aid                                                        | 155      | WK | 500.00         | 77,500           |  |
| 0200.300                                   | Material Handling                                                       | 113      | WK | 940.00         | 106,220          |  |
| 0200.310                                   | Cranes - In COW                                                         |          | CM |                |                  |  |
| 0200.320                                   | Progress Cleanup (Labor & Dumpster)                                     | 155      | WK | 1,200.00       | 186,000          |  |
| 0200.330                                   | Floor Protection                                                        | 313,535  | SF | 0.24           | 75,750           |  |
| 0200.360                                   | Final Cleanup                                                           | 313,535  | SF | 0.45           | 141,091          |  |
| 0200.400                                   | Temporary Heat Equipment (Fuel By Owner)                                | 1        | LS | 175,000.00     | 175,000          |  |
| 0200.410                                   | Temporary Enclosure                                                     | 1        | LS | 150,000.00     | 150,000          |  |
| 0200.970                                   | Support Equipment                                                       |          | LS |                |                  |  |
| <b>** Total COST OF WORK GEN REQ'S</b>     |                                                                         |          |    |                | <b>971,561</b>   |  |
| <b>* Total 01 - COST OF WORK GEN REQ'S</b> |                                                                         |          |    |                | <b>971,561</b>   |  |
| <b>02 - SITEWORK</b>                       |                                                                         |          |    |                |                  |  |
| <b>DEMOLITION</b>                          |                                                                         |          |    |                |                  |  |
| 2010.500                                   | Disassemble Sign & Score Board for Later Use                            | 2        | EA | 1,132.54       | 2,265            |  |
| 2010.600                                   | Remove Existing Batting Cage and Bleachers for Later Use                | 2        | EA | 2,359.46       | 4,719            |  |
| 2012.010                                   | Remove Pipe <=10" in Excavation                                         | 5,049    | LF | 4.35           | 21,946           |  |
| 2012.015                                   | Remove Electrical Conduit <=10" in Excavation                           | 3,815    | LF | 4.35           | 16,582           |  |
| 2012.610                                   | Remove Catch Basin                                                      | 17       | EA | 434.67         | 7,389            |  |
| 2013.000                                   | Remove Chain Link Fence                                                 | 4,319    | LF | 3.14           | 13,568           |  |
| 2013.000                                   | Remove Shot Put Cage                                                    | 1        | EA | 1,132.44       | 1,132            |  |
| 2013.040                                   | Remove Signage                                                          | 10       | EA | 83.77          | 838              |  |
| 2013.220                                   | Sawcut Bituminous Concrete Pavement                                     | 882      | LF | 2.00           | 1,764            |  |
| 2013.240                                   | Demo Bit Conc Pvmnt - Large Area                                        | 144,810  | SF | 0.16           | 23,821           |  |
| 2013.242                                   | Demo Bit Conc Pvmnt - Walks                                             | 20,710   | SF | 0.13           | 2,725            |  |
| 2013.250                                   | Demo Bituminous Concrete Pavement - Prep for Westerly Parking Lot       | 41,300   | SF | 0.33           | 13,592           |  |
| 2013.250                                   | Demo Bituminous Concrete Pavement - Track Access Road                   | 45,800   | SF | 0.33           | 15,073           |  |
| 2013.280                                   | Demo Conc Walk                                                          | 4,446    | SF | 0.63           | 2,793            |  |
| 2013.300                                   | Demo Concrete Curb                                                      | 35,147   | LF | 1.00           | 35,154           |  |
| 2013.320                                   | Demo Concrete Pads                                                      | 13       | CY | 30.41          | 395              |  |
| 2013.400                                   | Demo Tennis Courts                                                      | 15,423   | SF | 0.39           | 6,004            |  |
| 2013.405                                   | Demo Existing Dug Outs                                                  | 2        | EA | 1,853.81       | 3,708            |  |
| 2014.210                                   | Remove Light Pole                                                       | 9        | EA | 125.65         | 1,131            |  |
| 2022.100                                   | Mass Demolition - High School                                           | 270,000  | SF | 4.63           | 1,250,100        |  |
| 2022.100                                   | Mass Demolition - Shed/Barn                                             | 2,960    | SF | 5.00           | 14,800           |  |
| 2032.310                                   | Demo Entrance Canopy                                                    | 4,600    | SF | 0.68           | 3,129            |  |
| 2032.500                                   | Asbestos Abatement - Gym & Auditorium (Allowance)                       | 1        | LS | 300,000.00     | 300,000          |  |
| 2032.500                                   | Asbestos Abatement - High School, Excludes Gym & Auditorium (Allowance) | 1        | LS | 1,000,000.00   | 1,000,000        |  |
| <b>** Total DEMOLITION</b>                 |                                                                         |          |    |                | <b>2,742,630</b> |  |
| <b>PRELIMINARY SITEWORK</b>                |                                                                         |          |    |                |                  |  |



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Estimator: KN, JB, MT, AM  
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 Group 2: Minor ItemCode Groups

| Item Code                            | Description                                                 | Quantity | UM | Total UnitCost | Total Cost       |
|--------------------------------------|-------------------------------------------------------------|----------|----|----------------|------------------|
| 2100.000                             | Misc Sitework                                               | 1        | LS | 2,000.00       | 2,000            |
| 2110.290                             | Misc Erosion Control                                        | 1        | LS | 60,000.00      | 60,000           |
| 2110.306                             | Site Access/Laydown                                         | 1        | LS | 35,000.00      | 35,000           |
| 2110.320                             | Temporary Site Fencing                                      | 1        | LS | 30,000.00      | 30,000           |
| <b>** Total PRELIMINARY SITEWORK</b> |                                                             |          |    |                | <b>127,000</b>   |
| <b>EARTHWORK</b>                     |                                                             |          |    |                |                  |
| 2200.130                             | Site Excavation to Stockpile                                | 28,600   | CY | 9.70           | 277,477          |
| 2200.160                             | Site Fill From On-Site (Demolished Wing/Stockpile)          | 35,000   | CY | 3.17           | 110,919          |
| 2200.910                             | Granular Fill (M)                                           | 2,700    | CY | 14.00          | 37,800           |
| 2208.310                             | Structure Fill from Borrow (L)                              | 2,700    | CY | 3.17           | 8,557            |
| 2210.205                             | Structure Excavation                                        | 33,200   | CY | 12.13          | 402,633          |
| 2220.320                             | Bio-Retention Area                                          | 24       | CY | 35.00          | 840              |
| 2220.330                             | Struct Fill at Agg Piers                                    | 6,900    | CY | 32.50          | 224,218          |
| 2220.332                             | Crushed Stone Under Slab - 12"                              | 405      | CY | 33.87          | 13,717           |
| 2220.332                             | Crushed Stone Under Slab - 8"                               | 7,800    | CY | 33.87          | 264,186          |
| 2220.335                             | 3/4" Crushed Stone Material (M)                             | 112      | CY | 22.00          | 2,464            |
| 2220.335                             | BF Frost Wall w/ Structural Fill                            | 7,380    | CY | 27.87          | 205,681          |
| 2220.340                             | BF Frost Wall w/ On Site Matl                               | 5,700    | CY | 17.51          | 99,807           |
| 2220.348                             | Soil Filter - Sand, Sandy Loam, Comost (M)                  | 143      | CY | 40.00          | 5,720            |
| 2220.412                             | Pea Gravel (M)                                              | 48       | CY | 22.00          | 1,056            |
| 2220.420                             | Bark Mulch (M)                                              | 24       | CY | 35.00          | 840              |
| <b>** Total EARTHWORK</b>            |                                                             |          |    |                | <b>1,655,914</b> |
| <b>DEWATERING</b>                    |                                                             |          |    |                |                  |
| 2300.155                             | Dewatering                                                  | 1        | LS | 25,000.00      | 25,000           |
| <b>** Total DEWATERING</b>           |                                                             |          |    |                | <b>25,000</b>    |
| <b>FOUNDATION PILING</b>             |                                                             |          |    |                |                  |
| 2492.105                             | Aggregate Piers (18" Diameter, 20' deep, 8' x 8' Grid)      | 72,522   | SF | 10.00          | 725,220          |
| <b>** Total FOUNDATION PILING</b>    |                                                             |          |    |                | <b>725,220</b>   |
| <b>STORM DRAINAGE</b>                |                                                             |          |    |                |                  |
| 2500.110                             | 4" PVC Underdrain Trenching (L)                             | 5,429    | LF | 8.04           | 43,649           |
| 2500.115                             | 4" PVC Underdrain (M)                                       | 5,429    | LF | 2.00           | 10,858           |
| 2500.120                             | 6" PVC Underdrain Trenching (L) - Bioretention              | 2,287    | LF | 8.04           | 18,387           |
| 2500.125                             | 6" PVC Underdrain (M) - Bioretention                        | 2,287    | LF | 3.00           | 6,861            |
| 2500.170                             | Filter Fabric                                               | 27,150   | SY | 1.00           | 27,150           |
| 2500.180                             | Stone at Underdrain (M)                                     | 250      | CY | 20.00          | 5,000            |
| 2500.760                             | 12" HDPE Trenching (L)                                      | 1,908    | LF | 17.39          | 33,174           |
| 2500.765                             | 12" HDPE (M)                                                | 1,908    | LF | 7.00           | 13,356           |
| 2500.770                             | 15" HDPE Trenching (L)                                      | 328      | LF | 17.39          | 5,703            |
| 2500.775                             | 15" HDPE (M)                                                | 328      | LF | 9.00           | 2,952            |
| 2500.780                             | 18" HDPE Trenching (L)                                      | 1,335    | LF | 17.39          | 23,211           |
| 2500.785                             | 18" HDPE (M)                                                | 1,335    | LF | 14.00          | 18,690           |
| 2500.790                             | 24" HDPE Trenching (L)                                      | 371      | LF | 17.39          | 6,450            |
| 2500.795                             | 24" HDPE (M)                                                | 371      | LF | 21.00          | 7,791            |
| 2510.320                             | Stone Bedding (M)                                           | 2,073    | CY | 20.00          | 41,460           |
| 2510.340                             | On-Site Backfill (M)                                        | 5,468    | CY |                |                  |
| 2510.510                             | Storm Filter Catch Basin Units                              | 2        | EA | 2,608.00       | 5,216            |
| 2510.515                             | Stormtech MC3500 Chamber Systems - Adanced Drainage Systems | 1        | LS | 175,000.00     | 175,000          |
| 2510.528                             | Membrane at 40 Unit & 84 Unit Chambers                      | 8,067    | SF | 4.00           | 32,268           |
| 2510.530                             | Install 5' Diameter PC Manhole                              | 49       | EA | 869.33         | 42,597           |
| 2510.540                             | 5' PC Manhole (M)                                           | 49       | EA | 3,200.00       | 156,800          |
| 2510.630                             | MH/CB Connect To Existing                                   | 8        | EA | 2,608.00       | 20,864           |
| 2510.706                             | Truck Excess Pipe Excavation                                | 1,628    | CY | 3.00           | 4,883            |
| 2510.710                             | Support Existing Pipe                                       | 6        | EA | 1,304.00       | 7,824            |



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| 2515.366                            | Oil/Gas Separator (L)                                 | 1        | EA | 818.40         | 818            |
| 2515.368                            | Oil/Gas Separator (M)                                 | 1        | EA | 5,000.00       | 5,000          |
| <b>** Total STORM DRAINAGE</b>      |                                                       |          |    |                | <b>715,964</b> |
| <b>SANITARY SYSTEMS</b>             |                                                       |          |    |                |                |
| 2520.015                            | 6" PVC Trenching (L)                                  | 72       | LF | 13.04          | 939            |
| 2520.020                            | 6" PVC (M)                                            | 72       | LF | 3.50           | 252            |
| 2520.025                            | 8" PVC Trenching (L)                                  | 1,733    | LF | 17.39          | 30,131         |
| 2520.030                            | 8" PVC (M)                                            | 1,733    | LF | 6.00           | 10,398         |
| 2520.045                            | 12" PVC Trenching (L)                                 | 1,051    | LF | 17.39          | 18,273         |
| 2520.050                            | 12" PVC (M)                                           | 1,051    | LF | 12.00          | 12,612         |
| 2520.102                            | 4" PVC Forced Main                                    | 372      | LF | 28.00          | 10,416         |
| 2520.108                            | Added HDPE Sanitary                                   | 1,628    | LF | 32.00          | 52,096         |
| 2520.620                            | Stone Bedding (M)                                     | 855      | CY | 20.00          | 17,094         |
| 2520.640                            | On-Site Backfill (M)                                  | 2,574    | CY |                |                |
| 2530.306                            | Truck Excess Pipe Excavation                          | 569      | CY | 3.00           | 1,706          |
| 2530.308                            | Connect To Existing Pipe/Structure                    | 1        | EA | 1,304.00       | 1,304          |
| 2530.530                            | Install 4' Diameter PC Manhole                        | 12       | EA | 869.33         | 10,432         |
| 2530.540                            | 4' PC Manhole (M)                                     | 12       | EA | 3,200.00       | 38,400         |
| 2532.360                            | Install Grease Trap (L)                               | 1        | EA | 818.40         | 818            |
| 2532.362                            | Grease Trap-3000gal (M)                               | 1        | EA | 5,000.00       | 5,000          |
| <b>** Total SANITARY SYSTEMS</b>    |                                                       |          |    |                | <b>209,871</b> |
| <b>WATER SYSTEMS</b>                |                                                       |          |    |                |                |
| 2540.105                            | 6" D.I.P. Treching (L)                                | 491      | LF | 17.39          | 8,537          |
| 2540.105                            | 8" D.I.P. Treching (L)                                | 2,249    | LF | 17.39          | 39,102         |
| 2540.110                            | 6" Ductile Iron Pipe                                  | 491      | LF | 16.00          | 7,856          |
| 2540.110                            | 8" Ductile Iron Pipe                                  | 2,249    | LF | 20.00          | 44,980         |
| 2540.205                            | 1" CU Pipe Trenching (L)                              | 58       | LF | 12.36          | 717            |
| 2540.520                            | Stone Bedding (M)                                     | 528      | CY | 20.00          | 10,560         |
| 2540.540                            | On-Site Backfill (M)                                  | 1,767    | CY |                |                |
| 2540.606                            | Truck Excess Pipe Excavation                          | 351      | CY | 3.00           | 1,054          |
| 2540.608                            | Connect To Exist Pipe/Structural                      | 4        | EA | 1,304.00       | 5,216          |
| 2540.610                            | Hydrant w/ 6" Gate Valve                              | 1        | EA | 5,345.77       | 5,346          |
| <b>** Total WATER SYSTEMS</b>       |                                                       |          |    |                | <b>123,368</b> |
| <b>PROCESS PIPING</b>               |                                                       |          |    |                |                |
| 2560.305                            | 1" CU Pipe Trenching (L) Gas                          | 58       | LF | 12.36          | 717            |
| 2560.810                            | Sand Bedding (M)                                      | 4        | CY | 10.00          | 40             |
| 2570.506                            | Truck Excess Pipe Excavation                          | 8        | CY | 3.00           | 24             |
| <b>** Total PROCESS PIPING</b>      |                                                       |          |    |                | <b>781</b>     |
| <b>MISC SITE UTILITIES</b>          |                                                       |          |    |                |                |
| 2580.110                            | Elec Trench-Direct Burial                             | 2,464    | LF | 8.04           | 19,811         |
| 2580.110                            | Elec Trench-Direct Burial (Site Lighting)             | 7,700    | LF | 8.04           | 61,908         |
| 2580.120                            | Elec Trench-Duct Bank (Secondary/Primary Under Roads) | 140      | LF | 12.32          | 1,725          |
| 2580.130                            | Elec Ductbank Forms                                   | 560      | SF | 4.42           | 2,473          |
| 2580.140                            | Elec Ductbank Concrete                                | 49       | CY | 121.08         | 5,933          |
| 2580.242                            | Transformer Vault                                     | 1        | EA | 2,929.58       | 2,930          |
| 2582.402                            | Gas Line Trenching (L) (Conduit by utility)           | 1,158    | LF | 16.48          | 19,084         |
| 2582.506                            | Truck Excess Pipe Excavation                          | 232      | CY | 3.00           | 696            |
| 2582.825                            | Stone Bedding (M)                                     | 348      | CY | 20.00          | 6,960          |
| 2582.845                            | On-Site Backfill (M)                                  | 1,374    | CY |                |                |
| <b>** Total MISC SITE UTILITIES</b> |                                                       |          |    |                | <b>121,519</b> |
| <b>ROADS/WALKS</b>                  |                                                       |          |    |                |                |
| 2600.055                            | Proofroll Road Subgrade                               | 23,035   | SY | 0.19           | 4,446          |
| 2600.060                            | Fine Grade Road Subgrade                              | 23,035   | SY | 1.04           | 24,002         |
| 2600.080                            | Stablization Fabric-Heavy                             | 26,490   | SY | 1.88           | 49,902         |
| 2600.100                            | Install Road Sub-Base (L)                             | 10,750   | CY | 3.96           | 42,583         |





# CONSTRUCTION

## Dover High School - Design Development

Job #: 15027  
 Project Size: 310380 SF  
 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                   | Description                                                                                                                   | Quantity | UM  | Total UnitCost | Total Cost       |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------|-----|----------------|------------------|
| 2600.104                    | Sub-Base (M)                                                                                                                  | 10,750   | CY  | 20.00          | 214,993          |
| 2600.130                    | Install Road Base (L)                                                                                                         | 5,375    | CY  | 3.96           | 21,291           |
| 2600.136                    | Base - Crushed Stone (M)                                                                                                      | 5,375    | CY  | 20.00          | 107,497          |
| 2600.200                    | Bituminous Concrete Paving (4")                                                                                               | 3,631    | TON | 90.00          | 326,756          |
| 2600.200                    | Bituminous Concrete Paving (2") - Phase 3, Westerly Portion                                                                   | 836      | TON | 90.00          | 75,255           |
| 2600.260                    | Mill Existing Pavement-1" (Tennis Courts)                                                                                     | 1,662    | SY  | 2.50           | 4,155            |
| 2600.264                    | Overlay Existing Pavement ( 2")                                                                                               | 542      | TON | 90.00          | 48,767           |
| 2600.264                    | Overlay Existing Pavement ( 2") To be applied over Phase 4 temp paving.                                                       | 698      | TON | 90.00          | 62,793           |
| 2600.264                    | Overlay Existing Pavement ( 3") -to be applied over phase 4 temp paving                                                       | 208      | TON | 90.00          | 18,690           |
| 2600.264                    | Overlay Existing Pavement ( 4") (At Tennis Courts)                                                                            | 366      | TON | 90.00          | 32,934           |
| 2600.268                    | Tack Coat @ Overlay                                                                                                           | 18,131   | SY  | 0.40           | 7,252            |
| 2600.270                    | Remove Asphalt Paving at Alumni Road                                                                                          | 1        | LS  | -48,767.00     | -48,767          |
| 2600.605                    | Bollard Sign                                                                                                                  | 15       | EA  | 419.38         | 6,291            |
| 2610.002                    | Grading For Curbs                                                                                                             | 8,454    | LF  | 2.68           | 22,656           |
| 2610.062                    | Granite Curbs 6" X 18"                                                                                                        | 8,454    | LF  | 25.00          | 211,350          |
| 2610.130                    | Install Sidewalk Base (L)                                                                                                     | 1,782    | CY  | 12.57          | 22,392           |
| 2610.138                    | Base - Crushed Stone (M)                                                                                                      | 1,782    | CY  | 20.00          | 35,640           |
| 2610.145                    | Bituminous Sidewalk at Tennis Court                                                                                           | 9        | TON | 200.00         | 1,753            |
| 2610.175                    | 4" Concrete Sidewalk                                                                                                          | 23,483   | SF  | 4.00           | 93,932           |
| 2610.175                    | 4" Concrete Sidewalk - Courtyard                                                                                              | 1,168    | SF  | 4.00           | 4,672            |
| 2610.175                    | 6" Concrete- Vehicular/Structural                                                                                             | 3,931    | SF  | 5.00           | 19,655           |
| 2610.182                    | 4" Concrete Sidewalk - Courtyard                                                                                              | 8,468    | SF  | 4.00           | 33,872           |
| 2610.330                    | Set Bollards (L) - (Material In Div 05)                                                                                       | 2        | EA  | 240.76         | 482              |
| <b>** Total ROADS/WALKS</b> |                                                                                                                               |          |     |                | <b>1,445,244</b> |
| <b>SITE IMPROVEMENTS</b>    |                                                                                                                               |          |     |                |                  |
| 2710.070                    | Flowering Tree - 12' - 14' Ht                                                                                                 | 26       | EA  | 800.00         | 20,800           |
| 2710.100                    | Seeding                                                                                                                       | 199,115  | SF  | 0.14           | 27,876           |
| 2710.120                    | Sodding - Courtyard Only                                                                                                      | 10,675   | SF  | 0.75           | 8,006            |
| 2710.130                    | Strom Water Management Plantings - Courtyard Only                                                                             | 1,006    | SF  | 9.00           | 9,054            |
| 2710.204                    | Deciduous Tree - 4-1/2" Caliper                                                                                               | 126      | EA  | 1,100.00       | 138,600          |
| 2710.206                    | Coniferous/Deciduous Tree - 1 Gal                                                                                             | 59       | EA  | 800.00         | 47,200           |
| 2710.206                    | Multi Stem Tree                                                                                                               | 6        | EA  | 800.00         | 4,800            |
| 2710.208                    | Shrubs (36")                                                                                                                  | 284      | EA  | 45.00          | 12,780           |
| 2710.210                    | Shrubs (60")                                                                                                                  | 229      | EA  | 85.00          | 19,465           |
| 2710.212                    | Perennial Plantings                                                                                                           | 4,243    | SF  | 8.00           | 33,944           |
| 2710.212                    | Perennial Plantings (Shrubs Spaced 4' OC)                                                                                     | 2,338    | SF  | 8.00           | 18,704           |
| 2720.115                    | Chain Link Fence - Vinyl Coated 4' H w/ Gates                                                                                 | 2,158    | LF  | 28.00          | 60,424           |
| 2720.140                    | 4' Chain Link Fence - Dog Run                                                                                                 | 38       | LF  | 17.00          | 646              |
| 2720.145                    | 8' Black Vinyl Chain Link Fence - Livestock                                                                                   | 311      | LF  | 25.00          | 7,775            |
| 2720.150                    | 8' Black Vinyl Chain Link Fence - Horse Fence                                                                                 | 346      | LF  | 25.00          | 8,650            |
| 2750.320                    | A5 - Precast Pavers                                                                                                           | 6,044    | SF  | 10.00          | 60,440           |
| 2750.324                    | Granite Stair Treads                                                                                                          | 127      | LF  | 75.00          | 9,525            |
| 2750.328                    | Boulders                                                                                                                      | 37       | EA  | 250.00         | 9,250            |
| 2750.330                    | River Stone                                                                                                                   | 13       | CY  | 125.00         | 1,625            |
| 2750.340                    | Precast Seat Walls                                                                                                            | 165      | LF  | 360.00         | 59,400           |
| 2750.345                    | B11 - Wood Slat Bench                                                                                                         | 122      | LF  | 80.00          | 9,760            |
| 2750.350                    | B15/16 - Courtyard Bench                                                                                                      | 19       | LF  | 60.00          | 1,140            |
| 2750.350                    | B15/16 -Bench                                                                                                                 | 146      | LF  | 60.00          | 8,760            |
| 2752.700                    | Stainless Steel Bike Racks                                                                                                    | 5        | EA  | 754.76         | 3,774            |
| 2760.200                    | Running EPDM Track Surface & Track Equipment to be included as Add Alternate                                                  |          |     |                |                  |
| 2819.655                    | Standard Redi-Rock Gravity Retaining Walls (Large Architectural Knob & Groove Pre Manufactured Block) (Small Area 50 - 250SF) | 4,184    | SF  | 30.00          | 125,520          |

**CONSTRUCTION****Dover High School - Design Development**

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 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                            | Description                                                               | Quantity | UM | Total UnitCost | Total Cost        |  |
|--------------------------------------|---------------------------------------------------------------------------|----------|----|----------------|-------------------|--|
| <b>** Total SITE IMPROVEMENTS</b>    |                                                                           |          |    |                | 707,918           |  |
| <b>ATHLETIC TURF</b>                 |                                                                           |          |    |                |                   |  |
| 2900.202                             | ***Turf Field***                                                          |          |    |                |                   |  |
| 2900.204                             | Install 5' Diameter PC Manhole                                            | 6        | EA | 869.33         | 5,216             |  |
| 2900.206                             | 5' PC Manhole (M)                                                         | 6        | EA | 3,200.00       | 19,200            |  |
| 2900.210                             | 6" HDPE Trenching (L)                                                     | 515      | LF | 13.04          | 6,716             |  |
| 2900.212                             | 6" HDPE (M)                                                               | 515      | LF | 2.75           | 1,416             |  |
| 2900.214                             | 8" HDPE Trenching (L)                                                     | 744      | LF | 13.04          | 9,702             |  |
| 2900.216                             | 8" HDPE (M)                                                               | 744      | LF | 4.00           | 2,976             |  |
| 2900.218                             | 15" HDPE Trenching (L)                                                    | 594      | LF | 13.04          | 7,746             |  |
| 2900.220                             | 15" HDPE (M)                                                              | 594      | LF | 9.00           | 5,346             |  |
| 2900.222                             | 24" HDPE Trenching (L)                                                    | 663      | LF | 17.39          | 11,527            |  |
| 2900.224                             | 24" HDPE (M)                                                              | 663      | LF | 21.00          | 13,923            |  |
| 2900.226                             | Advanedge Drain Trenching (L)                                             | 1,704    | LF | 13.04          | 22,220            |  |
| 2900.228                             | Advanedge Drain (M)                                                       | 1,704    | LF | 12.00          | 20,448            |  |
| 2900.230                             | Truck Excess Pipe Excavation                                              | 826      | CY | 3.00           | 2,477             |  |
| 2900.231                             | Sand Bedding (M)                                                          | 1,238    | CY | 10.00          | 12,384            |  |
| 2900.232                             | On-Site Backfill (M)                                                      | 2,359    | CY |                |                   |  |
| 2900.234                             | Excavation to Stockpile                                                   | 1,600    | CY | 9.70           | 15,523            |  |
| 2900.235                             | Crushed Stone Under Slab (L)                                              | 2,750    | CY | 14.51          | 39,903            |  |
| 2900.236                             | 6" #467 Stone (M)                                                         | 1,900    | CY | 25.00          | 47,500            |  |
| 2900.238                             | 1-1/2" #89 Stone (M)                                                      | 500      | CY | 25.00          | 12,500            |  |
| 2900.240                             | 1" #10 Stone (M)                                                          | 350      | CY | 35.00          | 12,250            |  |
| 2910.000                             | Turf Field GCs                                                            | 12       | MW | 8,355.67       | 100,268           |  |
| 2920.000                             | Synthetic Turf Field                                                      | 1        | LS | 350,622.00     | 350,622           |  |
| <b>** Total ATHLETIC TURF</b>        |                                                                           |          |    |                | <b>719,862</b>    |  |
| <b>ATHLETIC FIELDS</b>               |                                                                           |          |    |                |                   |  |
| 2972.115                             | Soccer Field Overlapping Baseball Field<br>(Includes new drainage system) | 1        | EA | 200,000.00     | 200,000           |  |
| 2973.000                             | 2nd Baseball Field & Added Sitework                                       | 5        | MW | 8,355.04       | 44,900            |  |
| 2974.000                             | Baseball Field (Includes new drainage system)                             | 2        | EA | 150,000.00     | 300,000           |  |
| <b>** Total ATHLETIC FIELDS</b>      |                                                                           |          |    |                | <b>544,900</b>    |  |
| <b>ATHLETIC COURTS</b>               |                                                                           |          |    |                |                   |  |
| 2982.100                             | Tennis Court                                                              | 4        | EA | 40,000.00      | 160,000           |  |
| <b>** Total ATHLETIC COURTS</b>      |                                                                           |          |    |                | <b>160,000</b>    |  |
| <b>* Total 02 - SITEWORK</b>         |                                                                           |          |    |                | <b>10,025,190</b> |  |
| <b>03 - CONCRETE</b>                 |                                                                           |          |    |                |                   |  |
| <b>CONCRETE ACCESSORIES</b>          |                                                                           |          |    |                |                   |  |
| 3250.450                             | Vapor Barrier - Below Wood Floors                                         | 18,987   | SF | 1.50           | 28,481            |  |
| 3250.451                             | 15 Mil Stego Wrap Under Slab Vapor Barrier -<br>Taped Seams               | 197,439  | SF | 0.71           | 140,754           |  |
| <b>** Total CONCRETE ACCESSORIES</b> |                                                                           |          |    |                | <b>169,235</b>    |  |
| <b>CONCRETE</b>                      |                                                                           |          |    |                |                   |  |
| 3391.000                             | Winter Concrete                                                           | 6,000    | CY | 10.00          | 60,000            |  |
| 3391.011                             | 1' x 2' Continuous Footing - 2,508 LF                                     | 191      | CY | 360.00         | 68,886            |  |
| 3391.011                             | 1' x 2' Continuous Footing - 406 LF                                       | 31       | CY | 360.00         | 11,160            |  |
| 3391.011                             | 1' x 2' Continuous Footing - 814 LF                                       | 62       | CY | 360.00         | 22,356            |  |
| 3391.018                             | 1' x 3' Continuous Footing - 91 LF                                        | 13       | CY | 308.00         | 4,047             |  |
| 3391.019                             | 4'-6" x 1'-6" Continuous Footing (Cantilevered<br>Ret Wall) - 145 LF      | 137      | CY | 297.00         | 40,659            |  |
| 3391.020                             | 7' x 2' Continuous Footing (Cantilevered Ret<br>Wall) - 481 LF            | 257      | CY | 273.00         | 70,161            |  |
| 3391.020                             | 7' x 2' Continuous Footing (Cantilevered Ret<br>Wall) - 88 LF             | 47       | CY | 273.00         | 12,831            |  |
| 3391.022                             | 8'-2" x 2' Continuous Footing (Cantilevered Ret<br>Wall) - 20 LF          | 12       | CY | 260.00         | 3,242             |  |



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 Group 2: Minor ItemCode Groups

| Item Code | Description                                                                         | Quantity | UM | Total UnitCost | Total Cost |
|-----------|-------------------------------------------------------------------------------------|----------|----|----------------|------------|
| 3391.024  | 10' x 2' Continuous Footing (Cantilevered Ret Wall) - 89 LF                         | 68       | CY | 258.00         | 17,518     |
| 3391.029  | 4' x 4' x 2'-6" Isolated Footing - 235 Total Footings                               | 359      | CY | 387.20         | 139,005    |
| 3391.029  | 4' x 4' x 2'-6" Isolated Footing - 52 Total Footings                                | 79       | CY | 387.20         | 30,724     |
| 3391.031  | 5' x 5' x 2'-6" Isolated Footing - 1 Total Footings                                 | 5        | CY | 387.20         | 1,816      |
| 3391.033  | 6' x 4' x 2'-6" Isolated Footing - 10 EA                                            | 23       | CY | 340.00         | 7,783      |
| 3391.036  | 8' x 8' x 2'-6" Isolated Footing - 7 EA                                             | 6        | CY | 340.00         | 2,077      |
| 3391.045  | 10' x 10' x 2'-6" Isolated Footing - 6 EA                                           | 57       | CY | 370.40         | 21,205     |
| 3391.215  | 14" X 4' Ht Frost Wall - 2,289 LF                                                   | 408      | CY | 592.80         | 241,566    |
| 3391.215  | 14" X 4' Ht Frost Wall - 812 LF                                                     | 145      | CY | 592.80         | 85,689     |
| 3391.225  | 14" x 4' Frost Wall - 406 LF                                                        | 72       | CY | 592.80         | 42,859     |
| 3391.225  | 16" x 13'-6" Ht Wall (Cantilevered ret wall) - 122 LF                               | 71       | CY | 592.80         | 42,326     |
| 3391.230  | 16" x 15' Ht Wall (Cantilevered ret wall) - 366 LF                                  | 279      | CY | 585.00         | 162,952    |
| 3391.232  | 16" x 17' Ht Wall (Cantilevered ret wall) - 227 LF                                  | 196      | CY | 575.00         | 112,579    |
| 3391.240  | 2' x 1'-6" x 4' ht Pilaster (19 EA)                                                 | 12       | CY | 860.00         | 9,976      |
| 3391.240  | 2' x 1'-6" x 4' ht Pilaster (93 EA)                                                 | 43       | CY | 860.00         | 36,610     |
| 3391.255  | 2' x 2' x 4' Height Column                                                          | 8        | CY | 758.40         | 6,325      |
| 3391.255  | 2' x 2' x 4' Height Column (2 EA)                                                   | 1        | CY | 758.40         | 925        |
| 3395.025  | 2' Base Slab, Rebar Reinforced, 1-mat - 539 Total SQ FT                             | 41       | CY | 660.00         | 27,139     |
| 3395.025  | 5" Slab on Grade - 3,557 SF                                                         | 57       | CY | 264.00         | 14,916     |
| 3395.025  | 5" Slab on Grade - 62,892 SF                                                        | 1,000    | CY | 264.00         | 263,913    |
| 3395.025  | 6" Slab on Grade, Rebar Reinforced, 1-mat - 27,722 Total SQ FT                      | 529      | CY | 264.00         | 139,595    |
| 3395.025  | 6" Slab on Grade, Rebar Reinforced, 1-mat - 79,902 Total SQ FT                      | 1,524    | CY | 264.00         | 402,336    |
| 3395.025  | 6" Slab on Grade, Rebar Reinforced, 1-mat - 8,410 SF                                | 161      | CY | 264.00         | 42,504     |
| 3395.055  | 6" Thickened Edge, Formed (for slab on grade)                                       | 79       | CY | 215.00         | 16,985     |
| 3395.058  | 8" Thickened Edge, Formed (for slab on grade)                                       | 76       | CY | 215.00         | 16,248     |
| 3395.210  | 2'-0" x 2'-6" Grade Beam - 1,248 LF                                                 | 238      | CY | 485.30         | 115,520    |
| 3395.210  | 2'-0" x 2'-6" Grade Beam - 116 LF                                                   | 22       | CY | 485.30         | 10,740     |
| 3395.505  | F1: 4" Slab on Metal Deck, Rebar Reinforced, 1-mat - 10,862 Total SQ FT             | 136      | CY | 287.20         | 39,059     |
| 3395.505  | F1: 4" Slab on Metal Deck, Rebar Reinforced, 1-mat - 56,586 Total SQ FT             | 712      | CY | 287.20         | 204,486    |
| 3395.510  | F2: 6-1/2" Slab on Metal Deck, Rebar Reinforced, 1-mat - 47,472 Total SQ FT         | 981      | CY | 287.20         | 281,743    |
| 3395.510  | F2: 6-1/2" Slab on Metal Deck, Rebar Reinforced, 1-mat - 7,866 Total SQ FT          | 163      | CY | 287.20         | 46,814     |
| 3395.525  | Auditorium Seating: Slab on Metal Deck, Rebar Reinforced, 1-mat - 3,577 Total SQ FT | 105      | CY | 340.00         | 35,659     |
| 3395.525  | F-3: 5" Slab on Metal Deck, Rebar Reinforced, 1-mat - 5,721 Total SQ FT             | 91       | CY | 287.20         | 26,118     |
| 3395.525  | F-3: 5" Slab on Metal Deck, Rebar Reinforced, 1-mat - 963 Total SQ FT               | 32       | CY | 287.20         | 9,190      |
| 3397.025  | 3' Wide x 1' High Concrete Step (Auditorium) - 316 CY                               | 1        | LS | 163,496.00     | 163,496    |
| 3397.028  | 1' Wide x 6" High Concrete Step (Auditorium) - 50 CY                                | 1        | LS | 23,400.00      | 23,400     |
| 3397.030  | 3' Wide x 1' High Concrete Step (Forum) - 48 CY                                     | 1        | LS | 54,193.00      | 54,193     |
| 3397.032  | 1' Wide x 6" High Concrete Step (Forum) - 7 CY                                      | 1        | LS | 3,250.00       | 3,250      |



# CONSTRUCTION

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Group 2: Minor ItemCode Groups

| Item Code                            | Description                                       | Quantity | UM   | Total UnitCost | Total Cost       |
|--------------------------------------|---------------------------------------------------|----------|------|----------------|------------------|
| 3398.005                             | Concrete Stairs - Courtyard                       | 185      | SF   | 55.00          | 10,175           |
| 3398.009                             | Concrete Stairs                                   | 255      | SF   | 55.00          | 14,025           |
| <b>** Total CONCRETE</b>             |                                                   |          |      |                | <b>3,216,784</b> |
| <b>* Total 03 - CONCRETE</b>         |                                                   |          |      |                | <b>3,386,019</b> |
| <b>03 - PRECAST CONCRETE</b>         |                                                   |          |      |                |                  |
| <b>PRECAST CONCRETE</b>              |                                                   |          |      |                |                  |
| 3400.125                             | Precast concrete at base of curtain wall          | 1        | LS   | 12,000.00      | 12,000           |
| <b>** Total PRECAST CONCRETE</b>     |                                                   |          |      |                | <b>12,000</b>    |
| <b>* Total 03 - PRECAST CONCRETE</b> |                                                   |          |      |                | <b>12,000</b>    |
| <b>04 - MASONRY</b>                  |                                                   |          |      |                |                  |
| <b>MASONRY</b>                       |                                                   |          |      |                |                  |
| 4000.005                             | Brick Veneer System                               | 79,870   | SF   | 26.00          | 2,076,620        |
| 4000.008                             | Brick Veneer System (Reduction at front entry)    | -577     | SF   | 26.00          | -15,002          |
| 4000.010                             | Brick Veneer System - w/ Projecting Bricks        | 15,000   | SF   | 32.00          | 480,000          |
| 4000.100                             | 4" CMU Block Wall - Type 21A                      | 3,375    | SF   | 11.00          | 37,125           |
| 4000.110                             | 8" CMU Block Wall - Gym (17' High)                | 2,282    | SF   | 12.00          | 27,384           |
| 4000.110                             | 8" CMU Block Wall - Type 16A                      | 11,341   | SF   | 12.00          | 136,092          |
| 4000.120                             | 12" CMU Block Wall - Type 16D                     | 1,751    | SF   | 21.00          | 36,771           |
| 4000.120                             | 2 Hour Rated 12" CMU Block Wall - Type 16D        | 544      | SF   | 25.00          | 13,600           |
| 4030.410                             | 8" "Soundblox" (Type R) - Gym                     | 1,227    | SF   | 32.00          | 39,264           |
| <b>** Total MASONRY</b>              |                                                   |          |      |                | <b>2,831,854</b> |
| <b>* Total 04 - MASONRY</b>          |                                                   |          |      |                | <b>2,831,854</b> |
| <b>05 - METALS</b>                   |                                                   |          |      |                |                  |
| <b>STRUCTURAL STEEL</b>              |                                                   |          |      |                |                  |
| 5010.050                             | Structural Steel - (Reduction at front entry)     | 1        | LS   | -20,000.00     | -20,000          |
| 5010.050                             | Structural Steel - Roof Structure                 | 1,030    | TON  | 2,900.00       | 2,987,000        |
| 5010.052                             | Structural Steel - Floor Structure                | 1,295    | TON  | 2,900.00       | 3,755,500        |
| <b>** Total STRUCTURAL STEEL</b>     |                                                   |          |      |                | <b>6,722,500</b> |
| <b>METAL DECK</b>                    |                                                   |          |      |                |                  |
| 5300.205                             | R1.5: 1-1/2"x20ga Galvanized Metal Deck           | 141,877  | SF   | 1.70           | 241,191          |
| 5300.210                             | R1.5: 1-1/2"x20ga Galvanized Acoustic Metal Deck  | 25,856   | SF   | 2.10           | 54,295           |
| 5300.210                             | R1.5A: 1-1/2"x20ga Galvanized Acoustic Metal Deck | 15,124   | SF   | 2.10           | 31,759           |
| 5300.302                             | F1: 9/16"x26ga Galvanized Metal Deck              | 75,936   | SF   | 1.50           | 113,904          |
| 5300.305                             | F2: 2"x20ga Galvanized Metal Deck                 | 62,459   | SF   | 1.80           | 112,426          |
| 5300.405                             | F3: 3"x20ga Galvanized Metal Deck                 | 12,542   | SF   | 2.15           | 26,965           |
| 5300.405                             | R3.0A: 3"x20ga Galvanized Acoustic Metal Deck     | 15,201   | SF   | 4.95           | 75,245           |
| 5300.415                             | F3A: 3"x20ga Galvanized Acoustic Metal Deck       | 514      | SF   | 4.95           | 2,544            |
| <b>** Total METAL DECK</b>           |                                                   |          |      |                | <b>658,330</b>   |
| <b>MISCELLANEOUS METALS</b>          |                                                   |          |      |                |                  |
| 5500.000                             | OT/PT Swing Support                               | 1        | EA   | 1,608.72       | 1,609            |
| 5510.000                             | ****Metal Stairs****                              |          | **** |                |                  |
| 5510.050                             | Metal Pan Stair - 5'-6"                           | 23       | TRD  | 448.27         | 10,310           |
| 5510.050                             | Metal Pan Stair - 7'-6"                           | 152      | TRD  | 478.27         | 72,696           |
| 5510.052                             | Metal Pan Stair Landing                           | 1,217    | SF   | 71.60          | 87,132           |
| 5510.080                             | Ships Ladder-Steel (Catwalk)                      | 20       | LF   | 245.03         | 4,901            |
| 5510.580                             | Steel Ladder w/o Cage - Roof Access               | 22       | VLF  | 65.21          | 1,435            |
| 5510.582                             | Steel Ladder w/ Cage (Catwalk)                    | 62       | VLF  | 108.89         | 6,751            |
| 5512.050                             | Woven Wire Mesh Railings                          | 451      | LF   | 125.00         | 56,375           |
| 5512.350                             | Wall Railings                                     | 342      | LF   | 65.93          | 22,548           |
| 5512.400                             | Stainless Steel Site Railings                     | 141      | LF   | 80.00          | 11,280           |
| 5520.000                             | *** Handrails & Railings ***                      |          | **** |                |                  |
| 5520.050                             | Steel Handrail (Center of Tread)                  | 40       | LF   | 52.21          | 2,088            |
| 5530.122                             | Elevator Pit Misc Metals                          | 2        | EA   | 1,813.09       | 3,626            |



# CONSTRUCTION

## Dover High School - Design Development

Job #: 15027  
 Project Size: 310380 SF  
 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                            | Description                                                     | Quantity | UM  | Total UnitCost | Total Cost       |
|--------------------------------------|-----------------------------------------------------------------|----------|-----|----------------|------------------|
| 5530.140                             | Galvanized Metal Grating (Catwalk)                              | 1,045    | SF  | 12.97          | 13,552           |
| 5590.010                             | 6x4 Angle at Roof Edge                                          | 63,129   | LBS | 2.63           | 166,269          |
| 5590.012                             | 6x4 Angle Floating Lintel                                       | 27,455   | LBS | 2.63           | 72,311           |
| 5590.012                             | Miscellaneous Steel Framing-Galvanized - Equipment Screens      | 3,770    | LBS | 1.54           | 5,800            |
| 5590.012                             | Miscellaneous Steel Framing-Galvanized - Trench Drain 2x2 Angle | 496      | LBS | 3.13           | 1,554            |
| 5590.012                             | Miscellaneous Steel Framing-GWB Half Partitions                 | 1        | LS  | 7,997.40       | 7,997            |
| 5590.014                             | 5x2 Angle at Curtain Wall (5-A7.20)                             | 506      | LBS | 2.63           | 1,333            |
| 5590.016                             | Trench Drain                                                    | 83       | SF  | 12.97          | 1,076            |
| 5590.024                             | L2x2 Kicker at CMU Walls (M9-S.04)                              | 506      | LBS | 2.63           | 1,333            |
| 5590.026                             | L5x3x1/4 Clips at CMU Walls (M12/13-S.04)                       | 638      | LBS | 4.57           | 2,913            |
| 5590.030                             | Aluminum Column Enclosure                                       | 1        | EA  | 1,506.55       | 1,507            |
| 5590.110                             | Bollards                                                        | 14       | EA  | 269.52         | 3,773            |
| <b>** Total MISCELLANEOUS METALS</b> |                                                                 |          |     |                | <b>560,170</b>   |
| <b>* Total 05 - METALS</b>           |                                                                 |          |     |                | <b>7,940,999</b> |
| <b>06 - CARPENTRY</b>                |                                                                 |          |     |                |                  |
| <b>ROUGH CARPENTRY</b>               |                                                                 |          |     |                |                  |
| 6000.000                             | In Wall Blocking                                                | 300      | LF  | 7.78           | 2,333            |
| 6000.000                             | Roof edge blocking                                              | 8,695    | LF  | 7.78           | 67,607           |
| 6000.305                             | 1/2" Plywood - Electrical Tech                                  | 4,830    | SF  | 1.57           | 7,598            |
| 6000.315                             | Furred 3/4" Plywood Wall - Type 25A                             | 4,186    | SF  | 1.87           | 7,840            |
| 6000.500                             | Roof Trusses w/ sheathing - By Lester Buildings                 |          |     |                |                  |
| 6010.000                             | In Wall Blocking                                                | 1        | LS  | 50,000.00      | 50,000           |
| 6010.000                             | In Wall Blocking                                                | 1        | LS  | 24,437.84      | 24,438           |
| 6010.125                             | 2x6 Studs - Electrical Tech (By Others)                         |          |     |                |                  |
| 6100.618                             | Rough Cut Wood Stalls - By Lester Buildings                     |          |     |                |                  |
| <b>** Total ROUGH CARPENTRY</b>      |                                                                 |          |     |                | <b>159,815</b>   |
| <b>TRIM/FINISH CARPENTRY</b>         |                                                                 |          |     |                |                  |
| 6200.030                             | Base Cabinets - Wood Veneer (Mail Room)                         | 31       | LF  | 181.05         | 5,612            |
| 6200.055                             | Vertical Wood Slats over Apsorptive Panels                      | 5,212    | SF  | 20.00          | 104,240          |
| 6200.057                             | Solid Wood Reflective Acoustic Panels                           | 3,275    | SF  | 20.00          | 65,500           |
| 6200.059                             | Wood Slat Diffusive Panels                                      | 3,425    | SF  | 20.00          | 68,500           |
| 6200.061                             | Unidentified Wall Panels                                        | 1,524    | SF  | 20.00          | 30,480           |
| 6200.064                             | Reduce Auditorium Panel SF                                      | -6,636   | SF  | 20.00          | -132,720         |
| 6200.075                             | Library Desk                                                    | 16       | LF  | 400.00         | 6,400            |
| 6200.080                             | Guidance Desk                                                   | 22       | LF  | 400.00         | 8,800            |
| 6200.085                             | Dean's Desk                                                     | 22       | LF  | 400.00         | 8,800            |
| 6200.090                             | Admin Desk                                                      | 18       | LF  | 400.00         | 7,200            |
| 6200.104                             | Borrowed Light Sill - Solid Surface                             | 1,990    | LF  | 28.88          | 57,463           |
| 6200.104                             | Window Sill - Solid Surface                                     | 1,394    | LF  | 28.88          | 40,253           |
| 6200.270                             | 1x6 Trim-Maple (Borrowed Lights)                                | 650      | LF  | 9.61           | 6,245            |
| 6200.275                             | 1x8 Maple Cap at GWB Half Wall (Replacing Glass Handrail)       | 220      | LF  | 12.15          | 2,672            |
| 6200.300                             | Sliding Barn Door - By Lester Buildings                         |          |     |                |                  |
| 6200.300                             | Stall Doors - By Lester Buildings                               |          |     |                |                  |
| 6200.512                             | Siding - By Lester Buildings                                    |          |     |                |                  |
| 6200.550                             | Wood Fascia/Soffit - By Lester Buildings                        |          |     |                |                  |
| 6205.105                             | Mail Cubbies                                                    | 17       | LF  | 224.68         | 3,820            |
| 6205.405                             | Glass Display Case (7A-A8.4)                                    | 6        | LF  | 310.00         | 1,860            |
| 6205.410                             | Art Display w/ Glass Doors (2B-A8.5)                            | 18       | LF  | 310.00         | 5,580            |
| 6205.415                             | Display Case (12-A8.6)                                          | 23       | LF  | 310.00         | 7,130            |
| 6205.420                             | Wood Veneer Platform (2A-A8.4)                                  | 20       | LF  | 250.00         | 5,000            |
| 6206.445                             | Solid Surface Locker Bench - 1'                                 | 167      | LF  | 115.00         | 19,205           |
| 6206.450                             | Solid Surface Locker Bench - 2'                                 | 65       | LF  | 165.00         | 10,725           |
| 6210.066                             | 4" Wood Base Paint Grade                                        | 260      | LF  | 6.05           | 1,574            |



# CONSTRUCTION

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 Group 2: Minor ItemCode Groups

| Item Code                                | Description                                                                                             | Quantity | UM | Total UnitCost | Total Cost       |
|------------------------------------------|---------------------------------------------------------------------------------------------------------|----------|----|----------------|------------------|
| 6210.070                                 | 6" Wood Base Stain Grade                                                                                | 1,057    | LF | 9.55           | 10,097           |
| <b>** Total TRIM/FINISH CARPENTRY</b>    |                                                                                                         |          |    |                | <b>344,436</b>   |
| <b>FIBERGLASS FABRICATIONS</b>           |                                                                                                         |          |    |                |                  |
| 6810.922                                 | FRP Panels, Smooth Finish, Class C Non Rated (Mechanically Fastened)                                    | 1,062    | SF | 5.25           | 5,571            |
| <b>** Total FIBERGLASS FABRICATIONS</b>  |                                                                                                         |          |    |                | <b>5,571</b>     |
| <b>* Total 06 - CARPENTRY</b>            |                                                                                                         |          |    |                | <b>509,822</b>   |
| <b>07 - THERMAL/MOISTURE PROTECTION</b>  |                                                                                                         |          |    |                |                  |
| <b>WATERPROOFING</b>                     |                                                                                                         |          |    |                |                  |
| 7010.000                                 | Crystalline Waterproofing - Elevator Pits                                                               | 600      | SF | 2.50           | 1,500            |
| 7010.000                                 | Fluid Applied Waterproofing with Drainage Mat at Foundation Walls                                       | 1,882    | SF | 4.50           | 8,469            |
| 7010.005                                 | Crystalline Waterproofing - Orchestra Pit                                                               | 4,256    | SF | 2.50           | 10,640           |
| 7110.100                                 | Damproof Steel Columns Below Slab (6-A6.1)                                                              | 356      | EA | 26.80          | 9,540            |
| <b>** Total WATERPROOFING</b>            |                                                                                                         |          |    |                | <b>30,149</b>    |
| <b>BUILDING INSULATION</b>               |                                                                                                         |          |    |                |                  |
| 7200.105                                 | Rigid Insulation - 2" (2' around SOG perimeter)                                                         | 17,434   | SF | 2.08           | 36,329           |
| 7200.105                                 | Rigid Insulation - 2" Frost Wall                                                                        | 26,569   | SF | 2.08           | 55,364           |
| 7200.206                                 | Cellulose Insulation - 18"                                                                              | 5,445    | SF | 1.74           | 9,472            |
| 7210.816                                 | 3-1/2" Mineral Wool Insulation                                                                          | 109,756  | SF | 2.50           | 274,390          |
| 7210.816                                 | 6" Batt Insulation                                                                                      | 4,654    | SF | 1.50           | 6,981            |
| 7260.120                                 | Air Barrier - By Lester                                                                                 |          |    |                |                  |
| 7260.120                                 | Spray applied A/V barrier                                                                               | 109,756  | SF | 2.50           | 274,390          |
| <b>** Total BUILDING INSULATION</b>      |                                                                                                         |          |    |                | <b>656,926</b>   |
| <b>PREFORMED ROOFING/SIDING</b>          |                                                                                                         |          |    |                |                  |
| 7420.012                                 | Centria Versa Wall - Insulated metal panel                                                              | 10,160   | SF | 30.00          | 304,800          |
| 7420.014                                 | Siding at Entry (Trespa & Back-up)                                                                      | 1        | LS | 55,620.00      | 55,620           |
| 7420.040                                 | Ceiling Structure at Entry                                                                              | 1        | LS | 15,000.00      | 15,000           |
| <b>** Total PREFORMED ROOFING/SIDING</b> |                                                                                                         |          |    |                | <b>375,420</b>   |
| <b>ROOFING</b>                           |                                                                                                         |          |    |                |                  |
| 7530.017                                 | Roof Type R1A                                                                                           | 132,900  | SF | 9.00           | 1,196,100        |
| 7530.018                                 | Roof Type R1B                                                                                           | 30,440   | SF | 9.00           | 273,960          |
| 7530.019                                 | Roof Type R1C                                                                                           | 8,990    | SF | 9.00           | 80,910           |
| 7530.030                                 | Membrane Roofing at Entry                                                                               | 4,400    | SF | 9.00           | 39,600           |
| 7700.001                                 | Roof Walkway Pads                                                                                       | 3,000    | SF | 18.00          | 54,000           |
| 7700.002                                 | Roof Scuppers                                                                                           |          | EA | 1,000.00       |                  |
| 7700.003                                 | *** Roof-top Units (Curbs) ***                                                                          | 25       | EA |                |                  |
| 7700.004                                 | Roof Expansion Joint/Bulb Assembly                                                                      | 267      | LF | 40.00          | 10,680           |
| 7700.005                                 | Exterior Wall Expansion Joint Assembly                                                                  | 210      | LF | 40.00          | 8,400            |
| <b>** Total ROOFING</b>                  |                                                                                                         |          |    |                | <b>1,663,650</b> |
| <b>ROOF ACCESSORIES</b>                  |                                                                                                         |          |    |                |                  |
| 7800.120                                 | Parapet Cap/ Coping                                                                                     | 4,545    | LF | 9.00           | 40,905           |
| 7800.140                                 | Animal Science Barn Cupola                                                                              | 1        | EA | 6,000.00       | 6,000            |
| 7800.250                                 | Metal Roof Edge with 4" Fascia                                                                          | 5,824    | LF | 9.00           | 52,416           |
| 7800.251                                 | Metal Roof Cap at Brick Piers (1'-6"x10'-0")                                                            | 6        | EA | 180.00         | 1,080            |
| 7810.000                                 | Barn Skylights - 4'x4'                                                                                  | 10       | EA | 894.38         | 8,944            |
| 7810.100                                 | Roof Hatch (3x3)                                                                                        | 3        | EA | 1,238.08       | 3,714            |
| <b>** Total ROOF ACCESSORIES</b>         |                                                                                                         |          |    |                | <b>113,059</b>   |
| <b>FIREPROOFING</b>                      |                                                                                                         |          |    |                |                  |
| 7850.001                                 | Spray Fireproofing - Roof Deck (At Type IB Const Only per Struct Narrative)                             | 88,433   | SF | 1.50           | 132,650          |
| 7850.001                                 | Spray Fireproofing - Structural Steel Beams & Columns Only (At Type IB Const Only per Struct Narrative) | 136,928  | SF | 1.00           | 136,928          |
| <b>** Total FIREPROOFING</b>             |                                                                                                         |          |    |                | <b>269,578</b>   |





CONSTRUCTION

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Group 1: Major ItemCode Groups  
Group 2: Minor ItemCode Groups

| Item Code                                | Description                                                 | Quantity | UM | Total UnitCost | Total Cost |
|------------------------------------------|-------------------------------------------------------------|----------|----|----------------|------------|
| * Total 07 - THERMAL/MOISTURE PROTECTION |                                                             |          |    |                | 3,108,781  |
| <b>08 - DOORS AND WINDOWS</b>            |                                                             |          |    |                |            |
| <b>HOLLOW METAL DOORS &amp; FRAMES</b>   |                                                             |          |    |                |            |
| 8010.010                                 | 3070 Exterior Door                                          | 12       | EA | 2,500.00       | 30,000     |
| 8010.010                                 | 3070 Exterior Door                                          | 6        | EA | 2,000.00       | 12,000     |
| 8010.010                                 | 3070 Exterior Door                                          | 15       | EA | 1,404.76       | 21,071     |
| 8010.010                                 | 6070 Exterior Door                                          | 10       | EA | 2,500.00       | 25,000     |
| 8010.010                                 | 6070 Exterior Door                                          | 4        | EA | 2,500.00       | 10,000     |
| 8010.020                                 | 6070 Exterior Door                                          | 2        | EA | 5,000.00       | 10,000     |
| 8012.008                                 | 3070 Interior Wood Door w/glass, STC-30, Hollow Metal Frame | 30       | EA | 2,700.00       | 81,000     |
| 8012.008                                 | 3070 Interior Wood Door w/glass, STC-40, Hollow Metal Frame | 10       | EA | 3,000.00       | 30,000     |
| 8012.008                                 | 3070 Interior Wood Door, 45min rated, Hollow Metal Frame    | 2        | EA | 1,500.00       | 3,000      |
| 8012.008                                 | 3070 Interior Wood Door, 90min rated, Hollow Metal Frame    | 3        | EA | 1,700.00       | 5,100      |
| 8012.008                                 | 3070 Interior Wood Door, Hollow Metal Frame                 | 204      | EA | 1,204.76       | 245,771    |
| 8012.008                                 | 6070 Interior Wood Door w/large glass, Hollow Metal Frame   | 13       | EA | 3,000.00       | 39,000     |
| 8012.010                                 | 3070 Interior Wood Door, Hollow Metal Frame w/ Glass        | 102      | EA | 1,404.76       | 143,286    |
| 8012.010                                 | 6070 Interior Wood Door w/glass, STC-40, Hollow Metal Frame | 3        | EA | 3,500.00       | 10,500     |
| 8012.010                                 | 6070 Interior Wood Door, 120min rated, Hollow Metal Frame   | 5        | EA | 3,000.00       | 15,000     |
| 8012.010                                 | 6070 Interior Wood Door, 45min rated, Hollow Metal Frame    | 11       | EA | 2,000.00       | 22,000     |
| 8012.010                                 | 6070 Interior Wood Door, 90min rated, Hollow Metal Frame    | 2        | EA | 2,400.00       | 4,800      |
| 8012.012                                 | 3070 Interior Hollow Metal Door & Frame                     | 4        | EA | 1,105.00       | 4,420      |
| 8012.016                                 | 6070 Interior Hollow Metal Door & Frame                     | 3        | EA | 1,900.00       | 5,700      |
| 8012.018                                 | 6070 Interior Wood Door, Hollow Metal Frame                 | 31       | EA | 1,765.16       | 54,720     |
| 8012.019                                 | Transoms                                                    | 6        | EA | 600.00         | 3,600      |
| 8014.000                                 | Corridor Lock Down Hardware                                 | 1        | LS | 50,000.00      | 50,000     |
| 8014.020                                 | Interior Borrowed Lite - 2' x 4'                            | 2        | EA | 449.52         | 899        |
| 8014.020                                 | Interior Borrowed Lite - 3' x 8'-8"                         | 16       | EA | 550.00         | 8,800      |
| 8014.020                                 | Interior Borrowed Lite - 3' x 8'-8"                         | 6        | EA | 550.00         | 3,300      |
| 8014.021                                 | Interior Borrowed Lite - 3'-6" x 4'                         | 37       | EA | 500.00         | 18,500     |
| 8014.021                                 | Interior Borrowed Lite - 3'-6" x 4'                         | 10       | EA | 500.00         | 5,000      |
| 8014.025                                 | Interior Borrowed Lite - 2' x 4'                            | 38       | EA | 449.52         | 17,082     |
| 8014.025                                 | Interior Borrowed Lite - 2' x 6'-10"                        | 16       | EA | 659.52         | 10,552     |
| 8014.025                                 | Interior Borrowed Lite - 3' x 5'                            | 4        | EA | 659.52         | 2,638      |
| 8014.030                                 | Interior Borrowed Lite - 3'-4" x 3'-10"                     | 3        | EA | 550.00         | 1,650      |
| 8014.030                                 | Interior Borrowed Lite - 3'-4" x 4'                         | 56       | EA | 449.52         | 25,173     |
| 8014.030                                 | Interior Borrowed Lite - 3'-4" x 4'                         | 14       | EA | 450.00         | 6,300      |
| 8014.030                                 | Interior Borrowed Lite - 3'-4" x 6'-10"                     | 11       | EA | 850.00         | 9,350      |
| 8014.035                                 | Interior Borrowed Lite - 10' x 3'-8"                        | 12       | EA | 1,200.00       | 14,400     |
| 8014.035                                 | Interior Borrowed Lite - 3'-4" x 3'-8"                      | 18       | EA | 550.00         | 9,900      |
| 8014.040                                 | Interior Borrowed Lite - 12' x 4'-10"                       | 1        | EA | 2,000.00       | 2,000      |
| 8014.040                                 | Interior Borrowed Lite - 8' x 3'-10"                        | 11       | EA | 1,000.00       | 11,000     |
| 8014.040                                 | Interior Borrowed Lite - 8' x 5'                            | 3        | EA | 1,409.52       | 4,229      |
| 8014.045                                 | Interior Borrowed Lite - 6' x 4'-10"                        | 1        | EA | 1,200.00       | 1,200      |
| 8014.050                                 | Interior Borrowed Lite - 13'-4" x 8'-10"                    | 2        | EA | 2,159.52       | 4,319      |
| 8014.050                                 | Interior Borrowed Lite - 4' x 6'-8"                         | 2        | EA | 800.00         | 1,600      |
| 8014.055                                 | Interior Borrowed Lite - 15' x 4'                           | 1        | EA | 2,459.52       | 2,460      |
| 8015.000                                 | Interior Borrowed Lites to Replace Interior Curtain Wall    | 1        | LS | 21,000.00      | 21,000     |



# CONSTRUCTION

## Dover High School - Design Development

Job #: 15027  
 Project Size: 310380 SF  
 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                                       | Description                                                                                                                                                            | Quantity | UM | Total UnitCost | Total Cost       |  |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----|----------------|------------------|--|
| 8016.010                                        | 3070 Interior Barn Door - By Lester Buildings                                                                                                                          |          |    |                |                  |  |
| 8016.020                                        | 6070 Interior Barn Door - By Lester Buildings                                                                                                                          |          |    |                |                  |  |
| <b>** Total HOLLOW METAL DOORS &amp; FRAMES</b> |                                                                                                                                                                        |          |    |                | <b>1,007,319</b> |  |
| <b>SPECIAL DOORS</b>                            |                                                                                                                                                                        |          |    |                |                  |  |
| 8300.100                                        | 12' x 12' Overhead Door                                                                                                                                                | 2        | EA | 8,800.00       | 17,600           |  |
| 8300.100                                        | 12' x 12' Specialty Overhead Door with Glass                                                                                                                           | 2        | EA | 12,000.00      | 24,000           |  |
| 8300.100                                        | 27' x 18' Overhead Door                                                                                                                                                | 1        | EA | 16,000.00      | 16,000           |  |
| 8300.105                                        | 11' x 8' Overhead Door                                                                                                                                                 | 3        | EA | 8,500.00       | 25,500           |  |
| 8300.108                                        | 10'-6" x 8' Overhead Door (Interior)                                                                                                                                   | 2        | EA | 5,000.00       | 10,000           |  |
| 8300.108                                        | 4' x 8' Overhead Door (Interior)                                                                                                                                       | 1        | EA | 2,500.00       | 2,500            |  |
| 8300.108                                        | 8' x 8'-3" Overhead Door (Interior)                                                                                                                                    | 2        | EA | 3,500.00       | 7,000            |  |
| 8300.112                                        | 12' x 12' Overhead Door (Interior)                                                                                                                                     | 1        | EA | 8,800.00       | 8,800            |  |
| 8300.200                                        | Bi-Fold Doors to Sound Booth                                                                                                                                           | 1        | SF | 2,000.00       | 2,000            |  |
| <b>** Total SPECIAL DOORS</b>                   |                                                                                                                                                                        |          |    |                | <b>113,400</b>   |  |
| <b>METAL WINDOWS</b>                            |                                                                                                                                                                        |          |    |                |                  |  |
| 8500.010                                        | Aluminum Barn Window 2' x 4'                                                                                                                                           | 11       | EA | 470.78         | 5,179            |  |
| 8500.010                                        | Operable Aluminum Windows                                                                                                                                              | 7,171    | SF | 60.00          | 430,260          |  |
| 8500.012                                        | Aluminum Barn Window 5' x 5'-4"                                                                                                                                        | 13       | EA | 1,395.78       | 18,145           |  |
| 8500.014                                        | Aluminum Barn Window 5' x 5'-4" (Interior)                                                                                                                             | 1        | EA | 1,395.78       | 1,396            |  |
| 8500.040                                        | Coolite ALT-SF-2 Skylight                                                                                                                                              | 38       | EA | 344.38         | 13,086           |  |
| <b>** Total METAL WINDOWS</b>                   |                                                                                                                                                                        |          |    |                | <b>468,066</b>   |  |
| <b>GLASS AND GLAZING</b>                        |                                                                                                                                                                        |          |    |                |                  |  |
| 8800.800                                        | Curtainwall                                                                                                                                                            | 14,500   | SF | 80.00          | 1,160,000        |  |
| 8800.800                                        | Curtainwall - Canopy at Entrance                                                                                                                                       | 1        | LS | 5,000.00       | 5,000            |  |
| 8800.844                                        | Glass Handrail - Town Square                                                                                                                                           | 28       | LF | 265.00         | 7,420            |  |
| 8800.844                                        | Nanawall Sliding Door 8' 6" x 16" (Interior)                                                                                                                           | 16       | LF | 648.02         | 10,368           |  |
| 8800.846                                        | Nanawall Sliding Door 9' 11" x 14' 7" (Exterior)                                                                                                                       | 30       | LF | 1,230.15       | 36,905           |  |
| 8802.000                                        | Door Leaves in Curtain Wall                                                                                                                                            | 29       | EA | 2,000.00       | 58,000           |  |
| 8810.004                                        | 3070 Exterior Storefront Door                                                                                                                                          | 3        | EA | 1,600.00       | 4,800            |  |
| <b>** Total GLASS AND GLAZING</b>               |                                                                                                                                                                        |          |    |                | <b>1,282,493</b> |  |
| <b>* Total 08 - DOORS AND WINDOWS</b>           |                                                                                                                                                                        |          |    |                | <b>2,871,278</b> |  |
| <b>09 - FINISHES</b>                            |                                                                                                                                                                        |          |    |                |                  |  |
| <b>DRYWALL</b>                                  |                                                                                                                                                                        |          |    |                |                  |  |
| 9280.114                                        | 5/8" Abuse Resistant Gypsum Board (2 layers at 17') - Gym                                                                                                              | 18,846   | SF | 3.09           | 58,234           |  |
| 9282.001                                        | ===Wall Type Area: INT PARTITION - TO DECK===                                                                                                                          |          |    |                |                  |  |
| 9285.001                                        | Interior Partition: 6" Framing, 5/8" Type "X" GWB (2 Sides), Sound Batt, Taped (Level 4) - Type 01A                                                                    | 95,908   | SF | 6.77           | 649,556          |  |
| 9285.002                                        | 1 Hour Rated Interior Partition: 6" Framing, 5/8" Type "X" GWB (2 Sides), Sound Batt, Firestopping, Taped (Level 4) - Type 01A                                         | 4,843    | SF | 8.31           | 40,260           |  |
| 9285.003                                        | Interior Partition: 6" Framing, 5/8" Type "X" GWB (3 Layers; 2 on Corridor Side, 1 Class Room Side), Sound Batt, Taped (Level 4) - Type 02A                            | 84,698   | SF | 7.62           | 645,653          |  |
| 9285.004                                        | 1 Hour Rated Interior Partition: 6" Framing, 5/8" Type "X" GWB (3 Layers; 2 on Corridor Side, 1 Class Room Side), Sound Batt, Firestopping, Taped (Level 4) - Type 02A | 6,635    | SF | 8.31           | 55,157           |  |
| 9285.005                                        | Interior Partition: 8" Framing, 5/8" Type "X" GWB (3 Layers; 2 on Corridor Side, 1 Class Room Side), Sound Batt, Taped (Level 4) - Type 02C                            | 41,691   | SF | 8.27           | 344,901          |  |





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 Group 2: Minor ItemCode Groups

| Item Code | Description                                                                                                                                                            | Quantity | UM | Total UnitCost | Total Cost |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----|----------------|------------|
| 9285.006  | 1 Hour Rated Interior Partition: 8" Framing, 5/8" Type "X" GWB (3 Layers; 2 on Corridor Side, 1 Class Room Side), Sound Batt, Firestopping, Taped (Level 4) - Type 02C | 3,896    | SF | 10.00          | 38,960     |
| 9285.007  | Interior Partition: 6" Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Taped (Level 4) - Type 03A                                                          | 7,429    | SF | 8.00           | 59,435     |
| 9285.007  | Interior Partition: 8" Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Taped (Level 4) - Type 03C                                                          | 3,645    | SF | 9.00           | 32,807     |
| 9285.008  | 2 Hour Rated Interior Partition: 8" Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Firestopping, Taped (Level 4) - Type 03C                               | 898      | SF | 7.89           | 7,088      |
| 9285.009  | 2 Hour Rated Interior Partition: 6" Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Firestopping, Taped (Level 4) - Type 03A                               | 4,691    | SF | 9.99           | 46,851     |
| 9285.010  | Furred Partition: 6" Framing, 5/8" Type "X" GWB (1 Side), Sound Batt, Taped (Level 4) - Type 06A                                                                       | 37,684   | SF | 5.59           | 210,797    |
| 9285.011  | Interior Partition: 8" Track, 6" Staggered Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Taped (Level 4) - Type 11A                                      | 3,340    | SF | 24.58          | 82,097     |
| 9285.011  | LED Recessed Interior Partition: 6" Framing, 5/8" Type "X" GWB (1 Sides), Taped (Level 5) - Town Square                                                                | 1,200    | SF | 7.89           | 9,472      |
| 9285.013  | Furred Partition: 3 5/8" Framing, 5/8" Type "X" GWB (1 Side), Sound Batt, Taped (Level 4) - Type 06B                                                                   | 3,254    | SF | 5.14           | 16,738     |
| 9285.013  | Furred Partition: 3 5/8" Framing, 5/8" Type "X" GWB (1 Side), Taped (Level 4) - Type 19A                                                                               | 3,223    | SF | 4.21           | 13,581     |
| 9285.015  | Exterior Partition: 6" Framing, 5/8" Type "X" GWB (1 Side), 1/2" Dens Glass, Taped (Level 4) - Type WA1                                                                | 99,778   | SF | 8.50           | 848,113    |
| 9285.015  | Furred Partition: 6" Framing, 5/8" Type "X" GWB (2 layers, 1 Side), Sound Batt, Taped (Level 4) - Type 07A                                                             | 24,951   | SF | 7.19           | 179,493    |
| 9285.015  | Furred Partition: 8" Framing, 5/8" Type "X" GWB (1 Side), Taped (Level 4) - Type 01C                                                                                   | 70       | SF | 7.19           | 504        |
| 9285.020  | Interior Partition: Double Wall, 6" Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Taped (Level 4) - Type 12B                                             | 23,504   | SF | 22.43          | 527,195    |
| 9285.020  | Interior Partition: Double Wall, 6" Framing, 5/8" Type "X" GWB (2 Layers, 2 Sides), Sound Batt, Taped (Level 4) - Type 12B                                             | 1,687    | SF | 22.43          | 37,840     |
| 9285.022  | Interior Partition: Double Wall, 6" Framing, 5/8" Type "X" GWB (1 Layer, 2 Sides), Sound Batt, Taped (Level 4) - Type 24B                                              | 1,687    | SF | 19.09          | 32,205     |
| 9285.023  | Fire Stopping                                                                                                                                                          | 1        | LS | 15,000.00      | 15,000     |
| 9285.023  | Fire Stopping                                                                                                                                                          | 1        | LS | 60,000.00      | 60,000     |
| 9285.025  | Premium for Abuse Resistant Drywall at removed tile                                                                                                                    | 29,111   | SF | 1.32           | 38,427     |
| 9285.031  | Shaft Wall Partition (2 Hour Rated): 4" CH Framing, 1" Core Board, 5/8" Type "X" GWB (2 Layer), Sound Batt, Firestopping, Taped (Level 4) - Type 23B                   | 2,518    | SF | 9.86           | 24,825     |
| 9285.033  | Shaft Wall Partition (2 Hour Rated): 6" CH Framing, 1" Core Board, 5/8" Type "X" GWB (2 Layer), Sound Batt, Firestopping, Taped (Level 4) - Type 10C                   | 1,213    | SF | 10.46          | 12,687     |



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| Item Code                            | Description                                                                               | Quantity | UM | Total UnitCost | Total Cost       |
|--------------------------------------|-------------------------------------------------------------------------------------------|----------|----|----------------|------------------|
| 9285.037                             | Gypsum Ceiling: Suspended Drywall Grid 5/8" Type "X" GWB (1 Layer), Taped (Level 4) - C2A | 19,624   | SF | 5.31           | 104,205          |
| 9285.037                             | Gypsum Ceiling: Suspended Drywall Grid 5/8" Type "X" GWB (1 Layer), Taped (Level 4) - C2A | 1,937    | SF | 5.31           | 10,285           |
| 9285.043                             | Gypsum: "U" Soffit - Metal Framing, 5/8" GWB, Corner Bead (2), Taped (Level 4) - C2A      | 2,358    | SF | 49.73          | 117,252          |
| 9286.000                             | Misc Framing at Front Entry                                                               | 1        | LS | 15,000.00      | 15,000           |
| <b>** Total DRYWALL</b>              |                                                                                           |          |    |                | <b>4,334,618</b> |
| <b>CERAMIC TILE</b>                  |                                                                                           |          |    |                |                  |
| 9300.100                             | Ceramic Tile Floor - Thin Set                                                             | 12,452   | SF | 10.00          | 124,520          |
| 9300.105                             | Ceramic Tile Base - Thin Set                                                              | 11,594   | LF | 10.00          | 115,940          |
| 9300.200                             | Ceramic Tile Wall - Thin Set                                                              | 35,912   | SF | 10.00          | 359,120          |
| 9320.005                             | Porcelain Tile Floor                                                                      | 8,497    | SF | 12.00          | 101,964          |
| 9320.010                             | Porcelain Tile Base                                                                       | 1,357    | LF | 12.00          | 16,284           |
| <b>** Total CERAMIC TILE</b>         |                                                                                           |          |    |                | <b>717,828</b>   |
| <b>MARBLE</b>                        |                                                                                           |          |    |                |                  |
| 9360.070                             | Marble Threshold                                                                          | 24       | EA | 50.00          | 1,200            |
| <b>** Total MARBLE</b>               |                                                                                           |          |    |                | <b>1,200</b>     |
| <b>ACOUSTICAL TREATMENT</b>          |                                                                                           |          |    |                |                  |
| 9500.210                             | 24x24x3/4 Lay-In ACT                                                                      | 4,297    | SF | 3.00           | 12,891           |
| 9500.215                             | 24x24x3/4 Lay-In ACT Washable                                                             | 3,202    | SF | 5.00           | 16,010           |
| 9500.310                             | 24x48x3/4 Lay-In ACT                                                                      | 168,307  | SF | 2.70           | 454,429          |
| 9500.315                             | 24x48x3/4 Lay-In ACT - (Low NRC)                                                          | 4,633    | SF | 3.50           | 16,216           |
| 9500.320                             | 24x96x3/4 Lay-In ACT                                                                      | 3,851    | SF | 2.70           | 10,398           |
| 9500.390                             | ACT (Main Entry)                                                                          | 1,373    | SF | 6.00           | 8,238            |
| 9500.390                             | Reflective Wood Ceiling Panels (Auditorium)                                               | 3,340    | SF | 50.00          | 167,000          |
| 9500.518                             | 3" Sound Attenuation Blanket (Acoustic Separation Ceiling)                                | 16,952   | SF | 1.50           | 25,428           |
| 9500.520                             | Reflective Acoustic Clouds (Band)                                                         | 2,529    | SF | 35.00          | 88,515           |
| 9500.612                             | Ecophon Acoustical Wall Panels (Town Square/ Corridors)                                   | 2,825    | SF | 9.00           | 25,425           |
| 9500.612                             | Tectum Wall Panels - 2"                                                                   | 7,458    | SF | 7.00           | 52,206           |
| 9540.120                             | Acoustic Diffusion Panels                                                                 | 160      | SF | 15.00          | 2,400            |
| <b>** Total ACOUSTICAL TREATMENT</b> |                                                                                           |          |    |                | <b>879,155</b>   |
| <b>WOOD FLOORING</b>                 |                                                                                           |          |    |                |                  |
| 9550.100                             | Painted Hardboard System                                                                  | 2,985    | SF | 16.00          | 47,760           |
| 9550.102                             | Maple Strip Flooring Pre-Finished                                                         | 12,769   | SF | 18.00          | 229,842          |
| 9550.102                             | Rubber Athletic Floor (Practice Gym)                                                      | 6,219    | SF | 9.00           | 55,971           |
| <b>** Total WOOD FLOORING</b>        |                                                                                           |          |    |                | <b>333,573</b>   |
| <b>RESILIENT FLOORING</b>            |                                                                                           |          |    |                |                  |
| 9650.008                             | Linoleum Flooring - 2 mm                                                                  | 172,218  | SF | 4.00           | 688,872          |
| 9650.025                             | 4" Rubber Base                                                                            | 30,137   | LF | 2.75           | 82,877           |
| 9650.027                             | Ventilating Cove Base                                                                     | 846      | LF | 6.00           | 5,076            |
| 9650.032                             | Rubber Treads & Risers                                                                    | 8,218    | SF | 11.00          | 90,398           |
| 9650.032                             | Rubber Treads & Risers (Town Square)                                                      | 1,700    | SF | 11.00          | 18,700           |
| 9675.055                             | Floor Expansion Joint (Prep, Expansion material, and Cover Plate)                         | 113      | LF | 185.00         | 20,905           |
| <b>** Total RESILIENT FLOORING</b>   |                                                                                           |          |    |                | <b>906,828</b>   |
| <b>CARPET</b>                        |                                                                                           |          |    |                |                  |
| 9680.000                             | Carpet                                                                                    | 317      | SY | 35.00          | 11,095           |
| <b>** Total CARPET</b>               |                                                                                           |          |    |                | <b>11,095</b>    |
| <b>SPECIAL FLOORING</b>              |                                                                                           |          |    |                |                  |



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| Item Code                                    | Description                                                   | Quantity | UM | Total UnitCost | Total Cost       |  |
|----------------------------------------------|---------------------------------------------------------------|----------|----|----------------|------------------|--|
| 9700.000                                     | Heavy Duty Agricultural Use Rubber (Barn Stalls)              | 1,965    | SF | 20.00          | 39,300           |  |
| 9760.010                                     | 1/2" Interlocking Rubber Floor Tile                           | 2,737    | SF | 8.20           | 22,436           |  |
| 9800.005                                     | Exposed Concrete/Hardener/Sealer                              | 43,874   | SF | 3.00           | 131,622          |  |
| 9800.010                                     | Architectural Finished Concrete (Polished)                    | 23,138   | SF | 6.00           | 138,828          |  |
| 9850.050                                     | Moisture Mitigation (Grace or Koster VAP I 2000)              | 2,855    | SF | 4.00           | 11,420           |  |
| <b>** Total SPECIAL FLOORING</b>             |                                                               |          |    |                | <b>343,606</b>   |  |
| <b>PAINTING/WALL COVERING</b>                |                                                               |          |    |                |                  |  |
| 9900.100                                     | Misc Painting - Door Frames, Misc Metals                      | 1        | LS | 4,000.00       | 4,000            |  |
| 9900.100                                     | Paint Gypsum Walls (1 Coat Latex Primer, 2 Coats Latex Paint) | 527,015  | SF | 0.82           | 432,152          |  |
| 9900.100                                     | Paint Gypsum Walls (Replacing 29,111 SF of removed wall tile) | 29,111   | SF | 0.82           | 23,871           |  |
| 9900.205                                     | Misc Painting - Door Frames, Misc Metals                      | 1        | LS | 8,000.00       | 8,000            |  |
| 9900.205                                     | Misc Painting - Door Frames, Misc Metals                      | 1        | LS | 69,000.00      | 69,000           |  |
| 9900.310                                     | Paint Bollards (1 Coat Acrylic Primer, 2 Coats Acrylic Paint) | 14       | EA | 46.00          | 644              |  |
| 9900.506                                     | Paint Gym Floor Logo                                          | 1        | LS | 3,000.00       | 3,000            |  |
| 9900.600                                     | Paint Steel Structure - Type Exposed Steel/Deck               | 38,380   | SF | 2.00           | 76,760           |  |
| 9912.000                                     | 2 HR Intumescent Paint at Columns                             | 5        | EA | 1,200.00       | 6,000            |  |
| 9912.020                                     | 2 HR Intumescent Paint at gym steel                           | 1,500    | SF | 15.00          | 22,500           |  |
| 9950.000                                     | Marker Board Paint                                            | 300      | SF | 2.50           | 750              |  |
| <b>** Total PAINTING/WALL COVERING</b>       |                                                               |          |    |                | <b>646,677</b>   |  |
| <b>* Total 09 - FINISHES</b>                 |                                                               |          |    |                | <b>8,174,580</b> |  |
| <b>10 - SPECIALTIES</b>                      |                                                               |          |    |                |                  |  |
| <b>MISC SPECIALTIES</b>                      |                                                               |          |    |                |                  |  |
| 10000.010                                    | Flag Pole                                                     | 1        | EA | 2,277.73       | 2,278            |  |
| 10000.020                                    | **Smart Boards - N/A per HMFH                                 |          | EA | 2,677.73       |                  |  |
| <b>** Total MISC SPECIALTIES</b>             |                                                               |          |    |                | <b>2,278</b>     |  |
| <b>CHALKBOARDS &amp; TACKBOARDS</b>          |                                                               |          |    |                |                  |  |
| 10100.004                                    | 16' Marker Board w/ Aluminum Trim (QTY=8)                     | 512      | SF | 16.72          | 8,562            |  |
| 10100.004                                    | 24' Marker Board w/ Aluminum Trim (QTY=46)                    | 4,416    | SF | 16.72          | 73,848           |  |
| 10100.004                                    | 4' Marker Board W/ Alum Trim (QTY=60)                         | 960      | SF | 16.72          | 16,054           |  |
| 10100.004                                    | 6' Marker Board W/ Alum Trim (QTY=63)                         | 1,512    | SF | 16.72          | 25,285           |  |
| 10100.004                                    | 8' Marker Board W/ Alum Trim (QTY=164)                        | 5,248    | SF | 16.72          | 87,760           |  |
| 10100.008                                    | 4' Tack Board w/ Alum Trim (QTY=28)                           | 448      | SF | 10.39          | 4,657            |  |
| 10100.020                                    | Remove Tack Boards at Corridor                                | -1,176   | SF | 16.73          | -19,674          |  |
| <b>** Total CHALKBOARDS &amp; TACKBOARDS</b> |                                                               |          |    |                | <b>196,492</b>   |  |
| <b>COMPARTMENTS &amp; CUBICLES</b>           |                                                               |          |    |                |                  |  |
| 10180.100                                    | Floor Mounted Toilet Compartment                              | 50       | EA | 694.04         | 34,702           |  |
| 10180.103                                    | Urinal Screen                                                 | 8        | EA | 309.52         | 2,476            |  |
| 10191.100                                    | Privacy Curtain: Track w/ Supports (No Curtain)               | 30       | LF | 11.64          | 349              |  |
| 10191.100                                    | Privacy Curtain: Track W/Supports (No Curtain) - Nurse        | 64       | LF | 22.50          | 1,440            |  |
| <b>** Total COMPARTMENTS &amp; CUBICLES</b>  |                                                               |          |    |                | <b>38,967</b>    |  |
| <b>LOUVERS &amp; VENTS</b>                   |                                                               |          |    |                |                  |  |
| 10200.001                                    | 4' x 4' Louver                                                | 1        | EA | 694.38         | 694              |  |
| 10200.010                                    | Equipment Screen - Visual 8'-0" Tall Panel                    | 1,264    | SF | 40.67          | 51,405           |  |
| 10200.011                                    | Equipment Screen - Acoustic 8'-0" Tall Panel                  | 1,536    | SF | 60.67          | 93,187           |  |
| 10221.300                                    | Interior Chain Link Partition - Galvanized 14' High           | 66       | LF | 40.00          | 2,640            |  |
| <b>** Total LOUVERS &amp; VENTS</b>          |                                                               |          |    |                | <b>147,927</b>   |  |
| <b>IDENTIFYING DEVICES</b>                   |                                                               |          |    |                |                  |  |



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|-----------------------------------------------|-----------------------------------------------------------------------------|----------|----|----------------|----------------|--|
| 10410.150                                     | Signage                                                                     | 1        | LS | 10,000.00      | 10,000         |  |
| 10410.150                                     | Signage                                                                     | 1        | LS | 78,000.00      | 78,000         |  |
| <b>** Total IDENTIFYING DEVICES</b>           |                                                                             |          |    |                | <b>88,000</b>  |  |
| <b>LOCKERS</b>                                |                                                                             |          |    |                |                |  |
| 10500.000                                     | Lockers - Single Tier (72"x15"x12") - Athletic                              | 372      | EA | 294.76         | 109,651        |  |
| 10500.004                                     | Lockers - Double Tier (6' X 18" X 18") - Student (Salvage & Paint Existing) | 769      | EA | 100.00         | 76,900         |  |
| 10500.006                                     | Lockers - Six Tier (12"x12"x12") - Lab and Auto                             | 144      | EA | 382.10         | 55,022         |  |
| 10500.010                                     | Lockers - Single Locker; Welded Steel Storage (24"x15"x15") - Teacher's     | 80       | EA | 182.76         | 14,621         |  |
| <b>** Total LOCKERS</b>                       |                                                                             |          |    |                | <b>256,193</b> |  |
| <b>FIRE EXT,CABINETS&amp;ACCESS</b>           |                                                                             |          |    |                |                |  |
| 10520.000                                     | **Fire Extinguishers                                                        | 102      | EA | 125.46         | 12,797         |  |
| 10520.050                                     | **Fire Ext Cabinets                                                         | 102      | EA | 302.76         | 30,882         |  |
| <b>** Total FIRE EXT,CABINETS&amp;ACCESS</b>  |                                                                             |          |    |                | <b>43,678</b>  |  |
| <b>TOILET &amp; BATH ACCESSORIES</b>          |                                                                             |          |    |                |                |  |
| 10800.105                                     | 42" Grab Bar                                                                | 72       | EA | 97.38          | 7,011          |  |
| 10800.151                                     | Surface Mounted Double Roll Toilet Paper Holder                             | 69       | EA | 45.95          | 3,171          |  |
| 10800.170                                     | Surface Mounted Sanitary Napkin Vendor                                      | 28       | EA | 277.38         | 7,767          |  |
| 10800.174                                     | Surface Mounted Sanitary Napkin Disposal                                    | 53       | EA | 69.17          | 3,666          |  |
| 10800.200                                     | Surface Mounted Paper Towel Holder                                          | 36       | EA | 75.95          | 2,734          |  |
| 10800.203                                     | Recessed Waste Receptacle                                                   | 36       | EA | 254.76         | 9,171          |  |
| 10800.400                                     | Liquid Soap Dispenser                                                       | 52       | EA | 50.95          | 2,650          |  |
| 10800.607                                     | Robe Hook                                                                   | 60       | EA | 32.95          | 1,977          |  |
| 10800.609                                     | Mop Rack                                                                    | 5        | EA | 60.95          | 305            |  |
| 10800.610                                     | Electric Hand Dryer                                                         | 52       | EA | 302.38         | 15,724         |  |
| 10810.100                                     | 30"x30" Framed Mirror                                                       | 69       | EA | 212.38         | 14,654         |  |
| 10810.109                                     | Baby Changing Station                                                       | 4        | EA | 354.76         | 1,419          |  |
| <b>** Total TOILET &amp; BATH ACCESSORIES</b> |                                                                             |          |    |                | <b>70,249</b>  |  |
| <b>* Total 10 - SPECIALTIES</b>               |                                                                             |          |    |                | <b>843,785</b> |  |
| <b>11 - EQUIPMENT</b>                         |                                                                             |          |    |                |                |  |
| <b>LOADING DOCK EQUIPMENT</b>                 |                                                                             |          |    |                |                |  |
| 11160.005                                     | 50,000 lbs Capacity; 6'x6' Hydraulic Dock Leveler                           | 1        | EA | 9,179.73       | 9,180          |  |
| 11160.034                                     | 12" Dock Seal - OH Doors                                                    | 2        | EA | 1,585.04       | 3,170          |  |
| 11160.043                                     | Rubber Dock Bumper 4 1/2"x14"x12"                                           | 4        | EA | 166.38         | 666            |  |
| <b>** Total LOADING DOCK EQUIPMENT</b>        |                                                                             |          |    |                | <b>13,015</b>  |  |
| <b>FOOD SERVICE EQUIPMENT</b>                 |                                                                             |          |    |                |                |  |
| 11400.040                                     | Kitchen Equipment Allowance                                                 | 1        | LS | 533,715.00     | 533,715        |  |
| 11400.050                                     | Appliance Allowance                                                         | 1        | LS | 20,000.00      | 20,000         |  |
| <b>** Total FOOD SERVICE EQUIPMENT</b>        |                                                                             |          |    |                | <b>553,715</b> |  |
| <b>ATHLETIC &amp; RECREATION</b>              |                                                                             |          |    |                |                |  |
| 11480.000                                     | Gym Wall Padding - 7' 4" Ht                                                 | 478      | LF | 100.00         | 47,800         |  |
| 11480.006                                     | OUTDOOR SCOREBOARDS - NOT INCLUDED                                          |          |    |                |                |  |
| 11480.010                                     | Scoreboard/ Shot Clock                                                      | 2        | EA | 8,500.00       | 17,000         |  |
| 11480.020                                     | Basketball Hoop                                                             | 12       | EA | 5,400.00       | 64,800         |  |
| 11480.030                                     | Volley Ball Net w/ Floor Inserts                                            | 4        | EA | 1,900.00       | 7,600          |  |
| 11480.062                                     | Plastic Telescoping Stands - Hussey Maxam 26 Motorized Bleachers            | 600      | EA | 110.00         | 66,000         |  |
| 11482.065                                     | Gym Divider Curtain                                                         | 170      | LF | 160.00         | 27,200         |  |
| 11482.075                                     | Mat Mover                                                                   | 3        | EA | 10,000.00      | 30,000         |  |
| 11482.080                                     | Install Owner Provided Batting Cage                                         | 1        | LS | 8,831.35       | 8,831          |  |
| 11482.085                                     | Install Owner Provided Climbing Wall                                        | 1        | LS | 8,831.35       | 8,831          |  |



# CONSTRUCTION

## Dover High School - Design Development

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 Project Size: 310380 SF  
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Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                                     | Description                                                                                                                                                   | Quantity | UM   | Total UnitCost | Total Cost |                  |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|----------------|------------|------------------|
| <b>** Total ATHLETIC &amp; RECREATION</b>     |                                                                                                                                                               |          |      |                |            | 278,063          |
| <b>THEATRICAL EQUIPMENT</b>                   |                                                                                                                                                               |          |      |                |            |                  |
| 11650.000                                     | Stage Set Fastening Equipment - In Line set Allowance                                                                                                         |          |      |                |            |                  |
| 11653.000                                     | Auditorium Seating (850 Seats)                                                                                                                                | 1        | LS   | 172,359.00     |            | 172,359          |
| 11654.000                                     | Line Sets & Shell Allowance - Auditorium                                                                                                                      | 1        | LS   | 175,000.00     |            | 175,000          |
| 11656.000                                     | Indoor Kiln                                                                                                                                                   | 1        | EA   | 6,000.00       |            | 6,000            |
| 11660.000                                     | Residential Appliances - FFE Budget                                                                                                                           |          |      |                |            |                  |
| <b>** Total THEATRICAL EQUIPMENT</b>          |                                                                                                                                                               |          |      |                |            | <b>353,359</b>   |
| <b>* Total 11 - EQUIPMENT</b>                 |                                                                                                                                                               |          |      |                |            | <b>1,198,152</b> |
| <b>12 - FURNISHINGS</b>                       |                                                                                                                                                               |          |      |                |            |                  |
| <b>MANUF CABINETS &amp; CASEWORK</b>          |                                                                                                                                                               |          |      |                |            |                  |
| 12300.010                                     | Base Cabinets                                                                                                                                                 | 1,858    | LF   | 165.44         |            | 307,393          |
| 12300.048                                     | Wall Cabinets - Plastic Laminate                                                                                                                              | 364      | LF   | 142.95         |            | 52,033           |
| 12300.048                                     | Wall Cabinets - Plastic Laminate                                                                                                                              | 756      | LF   | 142.95         |            | 108,068          |
| 12300.050                                     | Full Height Storage Cabinets (2' x 3') - Plastic Laminate                                                                                                     | 143      | EA   | 525.00         |            | 75,075           |
| 12300.200                                     | Countertops-Plastic Laminate, Wall Mounted                                                                                                                    | 64       | LF   | 109.92         |            | 7,035            |
| 12300.210                                     | Countertops-Plastic Laminate                                                                                                                                  | 283      | LF   | 94.92          |            | 26,862           |
| 12300.310                                     | Countertops - Epoxy Resin, Wall Mounted                                                                                                                       | 77       | LF   | 192.94         |            | 14,856           |
| 12300.315                                     | Countertops - Epoxy Resin                                                                                                                                     | 1,575    | LF   | 177.94         |            | 280,256          |
| 12300.320                                     | Epoxy Resin Tables                                                                                                                                            | 823      | LF   | 187.36         |            | 154,197          |
| <b>** Total MANUF CABINETS &amp; CASEWORK</b> |                                                                                                                                                               |          |      |                |            | <b>1,025,774</b> |
| <b>WINDOW TREATMENT</b>                       |                                                                                                                                                               |          |      |                |            |                  |
| 12500.010                                     | Manual Roller Shades                                                                                                                                          | 7,651    | SF   | 11.00          |            | 84,161           |
| 12500.016                                     | Horizontal Louver Miniblinds                                                                                                                                  | 3,912    | SF   | 14.00          |            | 54,768           |
| <b>** Total WINDOW TREATMENT</b>              |                                                                                                                                                               |          |      |                |            | <b>138,929</b>   |
| <b>RUGS &amp; MATS</b>                        |                                                                                                                                                               |          |      |                |            |                  |
| 12671.107                                     | Walk-Off Foot Grilles (Alum Grid W/ Vinyl Insert, Frame, & Pan)                                                                                               | 650      | SF   | 60.00          |            | 39,000           |
| <b>** Total RUGS &amp; MATS</b>               |                                                                                                                                                               |          |      |                |            | <b>39,000</b>    |
| <b>* Total 12 - FURNISHINGS</b>               |                                                                                                                                                               |          |      |                |            | <b>1,203,703</b> |
| <b>13 - SPECIAL CONSTRUCTION</b>              |                                                                                                                                                               |          |      |                |            |                  |
| <b>PRE-ENGINEERED STRUCTURES</b>              |                                                                                                                                                               |          |      |                |            |                  |
| 13125.000                                     | Pre-Engineered Merry Go Round - Covered Round Pen                                                                                                             | 1        | LS   | 106,100.00     |            | 106,100          |
| 13125.020                                     | Lester Buildings - Animal Science Building / Barn: Exterior Wall and Roof Framing, Metal Roofing, Exposed Fastener Siding, Exterior Doors, Yellow Pine Stalls | 1        | LS   | 450,000.00     |            | 450,000          |
| 13125.025                                     | Design Animal Science Building / Barn to \$1,200,000                                                                                                          | 1        | LS   | -321,583.18    |            | -321,583         |
| 13125.030                                     | 42' x 18' Canopy - Tractor/Hay Storage                                                                                                                        | 756      | SF   | 35.00          |            | 26,460           |
| <b>** Total PRE-ENGINEERED STRUCTURES</b>     |                                                                                                                                                               |          |      |                |            | <b>260,977</b>   |
| <b>* Total 13 - SPECIAL CONSTRUCTION</b>      |                                                                                                                                                               |          |      |                |            | <b>260,977</b>   |
| <b>14 - CONVEYING SYSTEMS</b>                 |                                                                                                                                                               |          |      |                |            |                  |
| <b>ELEVATORS</b>                              |                                                                                                                                                               |          |      |                |            |                  |
| 14200.115                                     | Hydraulic Passenger Elevator A                                                                                                                                | 3        | STOP | 37,000.00      |            | 111,000          |
| 14200.115                                     | Hydraulic Passenger Elevator B                                                                                                                                | 2        | STOP | 37,000.00      |            | 74,000           |
| <b>** Total ELEVATORS</b>                     |                                                                                                                                                               |          |      |                |            | <b>185,000</b>   |
| <b>* Total 14 - CONVEYING SYSTEMS</b>         |                                                                                                                                                               |          |      |                |            | <b>185,000</b>   |
| <b>15 - PLUMBING EQUIPMENT</b>                |                                                                                                                                                               |          |      |                |            |                  |



# CONSTRUCTION

## Dover High School - Design Development

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 Project Size: 310380 SF  
 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                  | Description                                                                                                | Quantity | UM | Total UnitCost | Total Cost    |
|----------------------------|------------------------------------------------------------------------------------------------------------|----------|----|----------------|---------------|
| 15401.336                  | Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, 200 MBH Input               | 1        | EA | 1,847.00       | 1,847         |
| 15401.336                  | Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, 200 MBH Input - Added Scope | 1        | EA | 7,078.00       | 7,078         |
| 15401.344                  | Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, 500 MBH Input               | 2        | EA | 20,161.71      | 40,323        |
| 15401.344                  | Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, 500 MBH Input - Added Scope | 1        | EA | 659.00         | 659           |
| 15401.554                  | Potable Water Storage Tank, Indoor, Glass-Lined PE, 605 Gal., 48" OD, 87" Long                             | 1        | EA | 14,258.38      | 14,258        |
| 15401.556                  | Round, Stainless Steel, 26 ga., 8" OD - Water Heater Vent                                                  | 180      | LF | 28.30          | 5,094         |
| 15402.452                  | Sump Pump, Wet-Pit Mounted, Vertical, Single Stage, 25 GPM, 1 HP, 1-1/2" Disch.                            | 2        | EA | 4,055.67       | 8,111         |
| <b>** Total EQUIPMENT</b>  |                                                                                                            |          |    |                | <b>77,371</b> |
| <b>FIXTURES &amp; TRIM</b> |                                                                                                            |          |    |                |               |
| 15410.208                  | Comm. Water Closet, Floor Mounted VC, Flush Valve, Bowl only, incl. Seat, w/Floor Outlet 1.28 gpf ADA      | 77       | EA | 753.67         | 58,033        |
| 15410.210                  | Rough-In, Supply, Waste and Vent for Comm. Floor Mounted WC                                                | 77       | EA | 562.00         | 43,274        |
| 15410.404                  | Urinal, Wall Hung VC w/ Hanger and Valve, Water Saving 0.5 gpf                                             | 18       | EA | 843.38         | 15,181        |
| 15410.406                  | Rough-In, Supply, Waste and Vent for Wall Hung Urinal                                                      | 18       | EA | 705.00         | 12,690        |
| 15410.501                  | Boot Washing Station, Floor Mount w/Trim                                                                   | 1        | EA | 758.20         | 758           |
| 15410.640                  | Rough-In, Supply, Waste and Vent for Res. Vanity Top Lavatories                                            | 77       | EA | 547.00         | 42,119        |
| 15410.652                  | Res. Lavatory w/Trim, Wall Hung, VC, 18"x15" w/Backsplash                                                  | 77       | EA | 347.59         | 26,764        |
| 15410.694                  | Sink w/Faucet and Drain, SS Self Rimming, 25"x22" Single Bowl (Misc Lav, Office Sink)                      | 8        | EA | 805.71         | 6,446         |
| 15410.694                  | Sink w/Faucet and Drain, SS Self Rimming, 25"x22" Single Bowl (Misc Lav, Office Sink, P-21)                | 16       | EA | 805.71         | 12,891        |
| 15410.698                  | Sink w/Faucet and Drain, SS Self Rimming, 43"x22" Double Bowl (Lav-Music/Band Room)                        | 3        | EA | 1,286.48       | 3,859         |
| 15410.702                  | Rough-In, Supply, Waste and Vent for Sinks                                                                 | 27       | EA | 702.00         | 18,954        |
| 15410.816                  | Countertop SS Sink w/Faucet and Strainer, ADA, 37"x17" Single Bowl, Art Sink, Drop In                      | 5        | EA | 1,885.44       | 9,427         |
| 15410.817                  | Countertop SS Sink w/Faucet and Strainer, ADA, 37"x17" Single Bowl, Art Sink, Stand Up                     | 4        | EA | 2,135.44       | 8,542         |
| 15410.818                  | Rough-In, Supply, Waste and Vent for SS Sinks, Art Sinks                                                   | 9        | EA | 841.33         | 7,572         |
| 15410.830                  | Laboratory Sink, Corrosion Resistant, 32"x14"x10" Sink                                                     | 99       | EA | 614.00         | 60,786        |
| 15410.832                  | Rough-In, Supply, Waste and Vent for Laboratory Sinks                                                      | 99       | EA | 461.00         | 45,639        |
| 15410.834                  | Laboratory Faucet, Gooseneck Spout, Wrist Handles                                                          | 99       | EA | 235.80         | 23,344        |
| 15410.840                  | Mop Sink Basin, Floor (Corner), PE, 28"x28" w/Rim Guard                                                    | 6        | EA | 1,233.66       | 7,402         |
| 15410.844                  | Rough-In, Supply, Waste and Vent for Floor Mop Sink Basin                                                  | 6        | EA | 1,827.00       | 10,962        |
| 15411.101                  | Hose Bibb, Exterior Freeze-Proof, Lockable                                                                 | 10       | EA | 105.40         | 1,054         |



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 Group 2: Minor ItemCode Groups

| Item Code                           | Description                                                                                           | Quantity | UM | Total UnitCost | Total Cost     |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|----------|----|----------------|----------------|
| 15411.110                           | Dog Bathtub, 66"x36"x20" Deep                                                                         | 5        | EA | 1,973.36       | 9,867          |
| 15411.314                           | Stall Shower, One-Piece Fiberglass w/Three Walls, Drain Only, 32" Square                              | 10       | EA | 645.94         | 6,459          |
| 15411.326                           | Thermostatic Valve for Shower                                                                         | 10       | EA | 585.00         | 5,850          |
| 15411.328                           | Rough-In, Supply, Waste and Vent for Shower                                                           | 10       | EA | 818.00         | 8,180          |
| 15411.604                           | Group Wash Fountain, Foot Control, Terrazo, 36" Semicircle, 3 People, P-22                            | 4        | EA | 4,193.67       | 16,775         |
| 15411.630                           | Rough-In, Supply, Waste and Vent for Wash Fountain                                                    | 4        | EA | 1,108.34       | 4,433          |
| 15411.901                           | Emergency Shower, Single Head, Drench, Ball Valve, Pull Style, Freestanding, No Rough-In              | 15       | EA | 573.80         | 8,607          |
| 15411.908                           | Emergency Eyewash Fountain, SS Bowl, Pedestal Mount, No Rough-In                                      | 15       | EA | 533.80         | 8,007          |
| 15412.222                           | Electric Water Cooler, Wall Mounted, Full Recessed, SS, Bi-Level                                      | 7        | EA | 1,871.46       | 13,100         |
| 15412.236                           | Rough-In, Supply, Waste and Vent for Electric Water Cooler                                            | 7        | EA | 504.00         | 3,528          |
| 15412.434                           | Floor Drain, Heavy Duty, Galvanized w/ Sediment Bucket, 12" OD Grate, 4" Pipe Size                    | 34       | EA | 1,131.14       | 38,459         |
| 15412.614                           | Grease Interceptor, Under Counter, Steel, 50 GPM, 100 LB Fat Capacity (Included in Kitchen Allowance) | 2        | EA |                |                |
| 15412.728                           | Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size, Primary / Emergency         | 72       | EA | 1,074.20       | 77,342         |
| 15412.806                           | Trench Drain, Polyester Polymer Concrete, 12" Internal Width w/Heavy Duty Galvanized Grate            | 4        | EA | 1,595.00       | 6,380          |
| 15413.106                           | Cleanout, Floor Type, Heavy Duty, Round, 4" Pipe Size                                                 | 25       | EA | 384.00         | 9,600          |
| 15413.110                           | Cleanout, Floor Type, Heavy Duty, Round, 6" Pipe Size                                                 | 20       | EA | 508.20         | 10,164         |
| 15414.000                           | Solids Interceptor                                                                                    | 9        | EA | 1,137.00       | 10,233         |
| 15414.104                           | Water Meter, UL/FM Approved, 4" Main x 2" By-Pass, 700 GPM                                            | 1        | EA | 7,551.40       | 7,551          |
| 15414.122                           | Water Meter, Bronze, Comm./Dom., Threaded/Flanged, 2" OD, 160 GPM                                     | 1        | EA | 518.33         | 518            |
| 15414.126                           | Water Meter, Bronze, Comm./Dom., Flanged, 4" OD, 320 GPM                                              | 1        | EA | 5,394.02       | 5,394          |
| <b>** Total FIXTURES &amp; TRIM</b> |                                                                                                       |          |    |                | <b>666,146</b> |
| <b>DOMESTIC PIPING</b>              |                                                                                                       |          |    |                |                |
| 15420.104                           | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OD, 1/2" OD                                  | 5,125    | LF | 8.81           | 45,176         |
| 15420.106                           | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD                                  | 2,690    | LF | 10.64          | 28,612         |
| 15420.108                           | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD                                    | 1,170    | LF | 14.02          | 16,398         |
| 15420.112                           | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD                                | 60       | LF | 22.82          | 1,369          |
| 15420.114                           | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD                                    | 4,475    | LF | 31.93          | 142,871        |
| 15421.000                           | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 3" OD                              | 950      | LF | 35.66          | 33,874         |
| 15421.001                           | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 4" OD                              | 1,600    | LF | 45.02          | 72,039         |
| 15421.102                           | Fiberglass 1" Insulation With All Service Jacket 1/2" Pipe                                            | 5,125    | LF | 3.91           | 20,013         |
| 15421.104                           | Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe                                            | 2,690    | LF | 3.96           | 10,659         |



# CONSTRUCTION

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| Item Code                       | Description                                                                      | Quantity | UM | Total UnitCost | Total Cost     |
|---------------------------------|----------------------------------------------------------------------------------|----------|----|----------------|----------------|
| 15421.106                       | Fiberglass 1" Insulation With All Service Jacket 1" Pipe                         | 1,170    | LF | 4.16           | 4,868          |
| 15421.202                       | Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe                 | 60       | LF | 5.67           | 340            |
| 15421.204                       | Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe                     | 4,475    | LF | 5.87           | 26,273         |
| 15421.208                       | Fiberglass 1-1/2" Insulation With All Service Jacket 3" Pipe                     | 950      | LF | 6.79           | 6,451          |
| 15421.212                       | Fiberglass 1-1/2" Insulation With All Service Jacket 4" Pipe                     | 1,600    | LF | 7.78           | 12,454         |
| 15421.500                       | Valves and Accessories                                                           | 1        | LS | 40,000.00      | 40,000         |
| 15421.500                       | Valves and Accessories                                                           | 1        | LS | 110,000.00     | 110,000        |
| <b>** Total DOMESTIC PIPING</b> |                                                                                  |          |    |                | <b>571,397</b> |
| <b>SANITARY DWV</b>             |                                                                                  |          |    |                |                |
| 15440.080                       | UG PVC, Schedule 40, 2"                                                          | 1,175    | LF | 9.76           | 11,466         |
| 15440.084                       | UG PVC, Schedule 40, 4"                                                          | 3,325    | LF | 15.03          | 49,984         |
| 15440.086                       | UG PVC, Schedule 40, 6"                                                          | 2,100    | LF | 23.56          | 49,470         |
| 15440.144                       | AG ABS, Schedule 40, w/ Hangers, 2"                                              | 3,250    | LF | 16.90          | 54,929         |
| 15440.148                       | AG ABS, Schedule 40, w/ Hangers, 4"                                              | 2,150    | LF | 25.57          | 54,976         |
| 15440.150                       | AG ABS, Schedule 40, w/ Hangers, 6"                                              | 10       | LF | 41.98          | 420            |
| 15440.382                       | Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 2" OD - GW | 950      | LF | 24.95          | 23,703         |
| 15440.386                       | Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 4" OD - GW | 1,400    | LF | 45.25          | 63,347         |
| 15440.500                       | Acid Neutralization Tank                                                         | 1        | EA | 17,500.00      | 17,500         |
| <b>** Total SANITARY DWV</b>    |                                                                                  |          |    |                | <b>325,794</b> |
| <b>STORM DRAIN</b>              |                                                                                  |          |    |                |                |
| 15450.202                       | UG PVC, Schedule 40, 8"                                                          | 160      | LF | 33.25          | 5,320          |
| 15450.410                       | Sch40 PVC W/Couplings and Hangers, 10ft OC, 4" OD                                | 1,900    | LF | 25.33          | 48,133         |
| 15450.411                       | Sch40 PVC W/Couplings and Hangers, 10ft OC, 5" OD                                | 600      | LF | 33.32          | 19,992         |
| 15450.412                       | Sch40 PVC W/Couplings and Hangers, 10ft OC, 6" OD                                | 1,100    | LF | 38.16          | 41,976         |
| 15450.414                       | Sch40 PVC W/Couplings and Hangers, 10ft OC, 8" OD                                | 775      | LF | 53.67          | 41,592         |
| 15451.138                       | Fiberglass 1-1/2" Insulation With All Service Jacket 4" Pipe                     | 1,900    | LF | 8.04           | 15,276         |
| 15451.139                       | Fiberglass 1-1/2" Insulation With All Service Jacket 5" Pipe                     | 600      | LF | 9.34           | 5,604          |
| 15451.140                       | Fiberglass 1-1/2" Insulation With All Service Jacket 6" Pipe                     | 1,100    | LF | 9.97           | 10,962         |
| 15451.142                       | Fiberglass 1-1/2" Insulation With All Service Jacket 8" Pipe                     | 775      | LF | 12.83          | 9,943          |
| <b>** Total STORM DRAIN</b>     |                                                                                  |          |    |                | <b>198,798</b> |
| <b>GAS PIPING</b>               |                                                                                  |          |    |                |                |
| 15460.200                       | Valves and Accessories                                                           | 1        | LS | 5,000.00       | 5,000          |
| 15460.200                       | Valves and Accessories                                                           | 1        | LS | 50,000.00      | 50,000         |
| 15460.201                       | Lab Gas Outlet, Recessed Wall Outlet, Single                                     | 104      | EA | 71.50          | 7,436          |
| 15460.202                       | Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 1/2" OD     | 1,040    | LF | 9.72           | 10,104         |
| 15460.210                       | Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 1-1/2" OD   | 475      | LF | 16.90          | 8,028          |
| 15460.212                       | Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 2" OD       | 600      | LF | 21.70          | 13,020         |



**CONSTRUCTION****Dover High School - Design Development**

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 Project Size: 310380 SF  
 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                      | Description                                                                                                          | Quantity | UM | Total UnitCost | Total Cost       |  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|----|----------------|------------------|--|
| 15460.312                      | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 3" OD                                             | 1,385    | LF | 35.66          | 49,385           |  |
| 15460.316                      | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 4" OD                                             | 650      | LF | 45.02          | 29,266           |  |
| 15460.318                      | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 6" OD                                             | 550      | LF | 89.63          | 49,299           |  |
| 15460.320                      | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 8" OD                                             | 360      | LF | 126.51         | 45,544           |  |
| 15460.322                      | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 10" OD                                            | 25       | LF | 159.17         | 3,979            |  |
| 15460.400                      | Gas Safety Shut-Off, 1-1/2"                                                                                          | 8        | EA | 255.00         | 2,040            |  |
| <b>** Total GAS PIPING</b>     |                                                                                                                      |          |    |                | <b>273,101</b>   |  |
| <b>COMPRESSED AIR</b>          |                                                                                                                      |          |    |                |                  |  |
| 15470.090                      | Air Compressor, Reciprocating, Air-Cooled, Tank Mounted, Two Stage, 3 Phase, 105 CFM @ 125 PSI, 25 HP, 250 Gal. Tank | 1        | EA | 14,100.00      | 14,100           |  |
| 15470.100                      | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD - CA                                            | 250      | LF | 10.64          | 2,659            |  |
| 15470.102                      | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD                                                   | 70       | LF | 14.02          | 981              |  |
| 15470.104                      | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/4" OD                                               | 70       | LF | 18.84          | 1,319            |  |
| 15470.212                      | Compressed Air Outlet, Recessed Wall, Single                                                                         | 6        | EA | 123.75         | 743              |  |
| 15470.300                      | Bronze Ball Valve, Soldered, 3/4"                                                                                    | 4        | EA | 49.41          | 198              |  |
| 15470.302                      | Bronze Ball Valve, Soldered, 1-1/4"                                                                                  | 1        | EA | 83.33          | 83               |  |
| <b>** Total COMPRESSED AIR</b> |                                                                                                                      |          |    |                | <b>20,082</b>    |  |
| <b>MISCELLANEOUS</b>           |                                                                                                                      |          |    |                |                  |  |
| 15495.000                      | Kitchen Rough-In                                                                                                     | 2        | LS | 15,000.00      | 30,000           |  |
| 15495.004                      | Commissioning Support                                                                                                | 1        | LS | 16,000.00      | 16,000           |  |
| 15495.004                      | Commissioning Support                                                                                                | 1        | LS | 45,000.00      | 45,000           |  |
| 15495.006                      | Coordination & Management                                                                                            | 1        | LS | 21,000.00      | 21,000           |  |
| 15495.006                      | Coordination & Management                                                                                            | 1        | LS | 55,000.00      | 55,000           |  |
| 15495.008                      | Coring & Patching & Firestopping                                                                                     | 1        | LS | 15,000.00      | 15,000           |  |
| 15495.008                      | Coring & Patching & Firestopping                                                                                     | 1        | LS | 25,000.00      | 25,000           |  |
| 15495.010                      | Flushing & Sanitizing                                                                                                | 1        | LS | 5,000.00       | 5,000            |  |
| 15495.010                      | Flushing & Sanitizing                                                                                                | 1        | LS | 15,000.00      | 15,000           |  |
| 15495.018                      | Fees & Permits (\$15/\$1000) - Waived                                                                                | 2        | LS |                |                  |  |
| <b>** Total MISCELLANEOUS</b>  |                                                                                                                      |          |    |                | <b>227,000</b>   |  |
| <b>* Total 15 - PLUMBING</b>   |                                                                                                                      |          |    |                | <b>2,359,689</b> |  |
| <b>15 - FIRE PROTECTION</b>    |                                                                                                                      |          |    |                |                  |  |
| <b>WET SPRINKLER</b>           |                                                                                                                      |          |    |                |                  |  |
| 15502.002                      | Fire Service Main - 6" Ductile Iron, Mech. Joint                                                                     | 50       | LF | 29.06          | 1,453            |  |
| 15502.022                      | 4" Double Check Backflow Preventer W/OS&Y Valves, 4 Test Cocks                                                       | 1        | EA | 3,747.00       | 3,747            |  |
| 15502.024                      | 6" Double Check Backflow Preventer W/OS&Y Valves, 4 Test Cocks                                                       | 1        | EA | 5,847.73       | 5,848            |  |
| 15502.108                      | FDC - Two Way Siamese - 3x3x4                                                                                        | 2        | EA | 1,189.60       | 2,379            |  |
| 15502.116                      | 4" Zone Flow Control Valve W/Trim And Gauges                                                                         | 18       | EA | 6,009.14       | 108,165          |  |
| 15502.128                      | Tamper Switch                                                                                                        | 18       | EA | 153.65         | 2,766            |  |
| 15502.202                      | Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.                                                   | 8,450    | LF | 39.75          | 335,884          |  |
| 15502.222                      | Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C.                                                       | 17,560   | LF | 12.53          | 220,023          |  |
| 15502.226                      | Sprinkler Branch Sch 40 BS - 1-1/2" Threaded W/ Hangers 10 Ft O.C.                                                   | 8,700    | LF | 16.39          | 142,593          |  |
| 15502.400                      | Sprinkler Heads - Standard Pendant, 1/2" NPT, 1/2" Orifice                                                           | 2,625    | EA | 36.43          | 95,616           |  |

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 Group 2: Minor ItemCode Groups

| Item Code                           | Description                                                            | Quantity | UM | Total UnitCost | Total Cost     |  |
|-------------------------------------|------------------------------------------------------------------------|----------|----|----------------|----------------|--|
| <b>** Total WET SPRINKLER</b>       |                                                                        |          |    |                | 918,473        |  |
| <b>DRY SPRINKLER</b>                |                                                                        |          |    |                |                |  |
| 15505.006                           | 4" Dry Pipe Valve With Trim And Gauges                                 | 1        | EA | 3,549.00       | 3,549          |  |
| 15505.012                           | 30 Gal., 1 HP Comp Air Sys For Fire Protection                         | 1        | EA | 1,110.77       | 1,111          |  |
| 15505.202                           | Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.     | 105      | LF | 40.66          | 4,269          |  |
| 15505.222                           | Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C.         | 315      | LF | 12.95          | 4,078          |  |
| 15505.400                           | Sprinkler Heads - Standard Upright, 1/2" NPT, 1/2" Orifice             | 31       | EA | 37.85          | 1,173          |  |
| <b>** Total DRY SPRINKLER</b>       |                                                                        |          |    |                | <b>14,180</b>  |  |
| <b>STANDPIPE</b>                    |                                                                        |          |    |                |                |  |
| 15525.004                           | Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.     | 300      | LF | 39.75          | 11,925         |  |
| 15525.102                           | Fd Standpipe Angle Valve, 2-1/2", Brass, W/Wheel, Handle Chain And Cap | 10       | EA | 287.34         | 2,873          |  |
| <b>** Total STANDPIPE</b>           |                                                                        |          |    |                | <b>14,798</b>  |  |
| <b>MISCELLANEOUS</b>                |                                                                        |          |    |                |                |  |
| 15535.002                           | Coordination & Management                                              | 1        | LS | 20,000.00      | 20,000         |  |
| 15535.010                           | Hydraulic Calculations                                                 | 1        | LS | 12,000.00      | 12,000         |  |
| 15535.016                           | Coring & Patching & Firestopping                                       | 1        | LS | 17,500.00      | 17,500         |  |
| 15535.024                           | Fees & Permits (\$15/\$1000) - Waived                                  | 1        | LS |                |                |  |
| <b>** Total MISCELLANEOUS</b>       |                                                                        |          |    |                | <b>49,500</b>  |  |
| <b>* Total 15 - FIRE PROTECTION</b> |                                                                        |          |    |                | <b>996,951</b> |  |
| <b>15 - HVAC</b>                    |                                                                        |          |    |                |                |  |
| <b>AIR HANDLING EQUIPMENT</b>       |                                                                        |          |    |                |                |  |
| 15620.102                           | ERV-1, 3600 CFM (Material Cost in TRANE pkg price)                     | 1        | EA | 800.00         | 800            |  |
| 15620.323                           | MAU-1/2/3                                                              | 3        | EA | 386.92         | 1,161          |  |
| 15620.401                           | HV-1/2/5, 6000 CFM, 480 MBH                                            | 3        | EA | 1,120.00       | 3,360          |  |
| 15620.402                           | HV-3, 3000 CFM, 240 MBH                                                | 1        | EA | 644.00         | 644            |  |
| 15620.403                           | HV-4, 8000 CFM, 560 MBH                                                | 1        | EA | 1,680.00       | 1,680          |  |
| 15620.421                           | RTU 1-2, Stnd Controls, Curb, Econ., Multi-Zone, 4000 CFM              | 2        | EA | 2,907.71       | 5,815          |  |
| 15620.422                           | RTU 3, Stnd Controls, Curb, Econ., Multi-Zone, 5000 CFM                | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.423                           | RTU 4, Stnd Controls, Curb, Econ., Multi-Zone, 2500 CFM                | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.424                           | RTU 5, Stnd Controls, Curb, Econ., Multi-Zone, 7400 CFM                | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.425                           | RTU 6, Stnd Controls, Curb, Econ., Multi-Zone, 10,000 CFM              | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.426                           | RTU 7, Stnd Controls, Curb, Econ., Multi-Zone, 7000 CFM                | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.427                           | RTU 8, Stnd Controls, Curb, Econ., Multi-Zone, 9110 CFM                | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.428                           | RTU 9, Stnd Controls, Curb, Econ., Multi-Zone, 7000 CFM                | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.429                           | RTU 10, Stnd Controls, Curb, Econ., Multi-Zone, 13,000 CFM             | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.430                           | RTU 11, Stnd Controls, Curb, Econ., Multi-Zone, 3500 CFM               | 1        | EA | 2,907.71       | 2,908          |  |
| 15620.431                           | RTU 12,14, Stnd Controls, Curb, Econ., Multi-Zone, 8000 CFM            | 2        | EA | 2,907.71       | 5,815          |  |
| 15620.432                           | RTU 13, Stnd Controls, Curb, Econ., Multi-Zone, 2755 CFM               | 1        | EA | 2,907.71       | 2,908          |  |

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 Group 2: Minor ItemCode Groups

| Item Code                              | Description                                                                    | Quantity | UM | Total UnitCost | Total Cost       |
|----------------------------------------|--------------------------------------------------------------------------------|----------|----|----------------|------------------|
| 15620.433                              | RTU 15,17, Stnd Controls, Curb, Econ., Multi-Zone, 12,500 CFM                  | 2        | EA | 2,907.71       | 5,815            |
| 15620.434                              | RTU 16, Stnd Controls, Curb, Econ., Multi-Zone, 10,500 CFM                     | 1        | EA | 2,907.71       | 2,908            |
| 15620.435                              | RTU 18, Stnd Controls, Curb, Econ., Multi-Zone, 12,000 CFM                     | 1        | EA | 2,907.71       | 2,908            |
| 15620.436                              | RTU 19, Stnd Controls, Curb, Econ., Multi-Zone, 8000 CFM                       | 1        | EA | 2,907.71       | 2,908            |
| 15620.500                              | TRANE Package (RTU's, MUA's, HV's, ERV, Chiller) w/Factory Mounted Controls    | 1        | LS | 600,000.00     | 600,000          |
| 15620.500                              | TRANE Package (RTU's, MUA's, HV's, ERV, Chiller) w/Factory Mounted Controls    | 1        | LS | 1,500,000.00   | 1,500,000        |
| 15624.001                              | Split System, Ductless, Cooling Only, Single Zone, 3/4 Ton                     | 16       | EA | 2,244.00       | 35,904           |
| 15624.002                              | Split System, Ductless, Cooling Only, Single Zone, 1-1/4 Ton                   | 2        | EA | 2,990.00       | 5,980            |
| 15624.003                              | Split System, Ductless, Cooling Only, Single Zone, 1-1/2 Ton                   | 2        | EA | 3,530.00       | 7,060            |
| 15624.004                              | ACC-1, 14 Ton                                                                  | 1        | EA | 4,569.98       | 4,570            |
| <b>** Total AIR HANDLING EQUIPMENT</b> |                                                                                |          |    |                | <b>2,216,405</b> |
| <b>FANS</b>                            |                                                                                |          |    |                |                  |
| 15630.226                              | Rooftop Exhaust Fan, 1000 CFM                                                  | 9        | EA | 1,680.56       | 15,125           |
| 15630.228                              | Rooftop Exhaust Fan, 1500 CFM                                                  | 9        | EA | 2,180.56       | 19,625           |
| 15630.416                              | Kitchen Exhaust Fan, Centrifugal, 4000 CFM, Culinary Kitchen                   | 1        | EA | 4,215.33       | 4,215            |
| 15630.416                              | Kitchen Exhaust Fan, Centrifugal, 4000 CFM, Kitchen                            | 1        | EA | 4,215.33       | 4,215            |
| 15630.500                              | 8ft Fume Hood, Fan, Ductwork                                                   |          | EA | 5,500.00       |                  |
| 15630.502                              | 4ft Fume Hood, Fan, Ductwork                                                   | 13       | EA | 4,250.00       | 55,250           |
| <b>** Total FANS</b>                   |                                                                                |          |    |                | <b>98,431</b>    |
| <b>HEATING EQUIPMENT</b>               |                                                                                |          |    |                |                  |
| 15640.112                              | Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 330 MBH  | 2        | EA | 10,214.00      | 20,428           |
| 15640.114                              | Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 2500 MBH | 4        | EA | 47,916.00      | 191,664          |
| <b>** Total HEATING EQUIPMENT</b>      |                                                                                |          |    |                | <b>212,092</b>   |
| <b>COOLING EQUIPMENT</b>               |                                                                                |          |    |                |                  |
| 15650.002                              | Glycol Treatment System                                                        | 1        | LS | 8,000.00       | 8,000            |
| 15651.005                              | Chiller, Air Cooled, High Efficiency, 35 Ton (Material Cost in TRANE Price)    | 1        | EA | 4,427.00       | 4,427            |
| <b>** Total COOLING EQUIPMENT</b>      |                                                                                |          |    |                | <b>12,427</b>    |
| <b>MISC EQUIPMENT</b>                  |                                                                                |          |    |                |                  |
| 15660.004                              | Vehicle Exhaust System, 11,000 CFM                                             | 1        | LS | 25,000.00      | 25,000           |
| 15660.006                              | Paint Booth Exhaust System, 10,000 CFM                                         | 1        | LS | 25,000.00      | 25,000           |
| 15660.010                              | Duct Collection System, 7500 CFM                                               | 1        | LS | 87,000.00      | 87,000           |
| 15660.125                              | In-Line, Centrifugal Boiler Pump, Cast Iron, Flange Conn., 2-1/2"              | 2        | EA | 1,088.20       | 2,176            |
| 15660.130                              | In-Line, Centrifugal Boiler Pump, Cast Iron, Flange Conn., 3"                  | 4        | EA | 2,404.00       | 9,616            |
| 15660.202                              | Hot Water Pump, Centrifugal, Base Mounted, End Suction, 76 gpm w/ VFD          | 2        | EA | 4,096.31       | 8,193            |
| 15660.206                              | Chilled Water Pump, Centrifugal, Base Mounted, End Suction, 88 gpm w / VFD     | 2        | EA | 3,994.33       | 7,989            |
| 15660.206                              | Hot Water Pump, Centrifugal, Base Mounted, End Suction, 680 gpm w/ VFD         | 2        | EA | 17,994.33      | 35,989           |
| 15660.501                              | Condensate Pump, Cooling, w/1 gallon ABS Tank, 115V, 1/50 HP, 200 gph          | 20       | EA | 231.02         | 4,620            |



# CONSTRUCTION

## Dover High School - Design Development

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 Group 2: Minor ItemCode Groups

| Item Code                              | Description                                                                                                  | Quantity | UM | Total UnitCost | Total Cost |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------|----------|----|----------------|------------|
| ** Total MISC EQUIPMENT                |                                                                                                              |          |    |                | 205,583    |
| <b>DUCTWORK &amp; AIR DISTRIBUTION</b> |                                                                                                              |          |    |                |            |
| 15680.042                              | Sound Attenuator Device / Double Wall Ductwork (per RTU)                                                     | 57       | EA | 1,250.00       | 71,250     |
| 15680.112                              | Galvanized Ductwork, > 5000 LB                                                                               | 288,886  | LB | 7.50           | 2,166,616  |
| 15681.102                              | Spiral Preformed, Galvanized Steel, 26 ga., 4" OD                                                            | 1,625    | LF | 4.16           | 6,760      |
| 15681.104                              | Spiral Preformed, Galvanized Steel, 26 ga., 6" OD                                                            | 1,210    | LF | 4.81           | 5,820      |
| 15681.106                              | Spiral Preformed, Galvanized Steel, 26 ga., 8" OD                                                            | 1,860    | LF | 6.61           | 12,295     |
| 15681.108                              | Spiral Preformed, Galvanized Steel, 26 ga., 10" OD                                                           | 1,110    | LF | 8.26           | 9,169      |
| 15681.110                              | Spiral Preformed, Galvanized Steel, 26 ga., 12" OD                                                           | 2,535    | LF | 10.55          | 26,744     |
| 15681.112                              | Spiral Preformed, Galvanized Steel, 26 ga., 14" OD                                                           | 1,200    | LF | 14.55          | 17,460     |
| 15681.114                              | Spiral Preformed, Galvanized Steel, 24 ga., 16" OD                                                           | 722      | LF | 19.40          | 14,007     |
| 15681.116                              | Spiral Preformed, Galvanized Steel, 24 ga., 18" OD                                                           | 135      | LF | 22.80          | 3,078      |
| 15681.118                              | Spiral Preformed, Galvanized Steel, 24 ga., 20" OD                                                           | 47       | LF | 26.66          | 1,253      |
| 15681.704                              | PVC Duct, 8" OD                                                                                              | 150      | LF | 5.00           | 750        |
| 15681.706                              | PVC Duct, 8" OD, 90deg Elbow                                                                                 | 12       | LF | 139.55         | 1,675      |
| 15681.708                              | PVC Duct, 8" OD, Coupling                                                                                    | 12       | LF | 38.75          | 465        |
| 15681.710                              | Combustion Air Louver                                                                                        | 16       | SF | 50.00          | 800        |
| 15684.102                              | Duct Insulation, Blanket Type, Fiberglass, FSK, 1.0Lb Density, 1-1/2" Thick                                  | 283,834  | SF | 2.53           | 718,952    |
| 15685.004                              | Displacement Ventilation Diffuser                                                                            | 425      | EA | 450.00         | 191,250    |
| 15685.618                              | RGD's                                                                                                        | 561      | EA | 80.64          | 45,239     |
| 15688.014                              | Gas Vent, Double Wall, Galvanized Steel, UL Listed, 8" Dia. (75LF per Boiler exhaust, 50LF per DHWH exhaust) | 600      | LF | 48.66          | 29,198     |
| 15688.402                              | Exhaust Hood Discharge Assembly                                                                              | 19       | EA | 597.50         | 11,353     |
| ** Total DUCTWORK & AIR DISTRIBUTION   |                                                                                                              |          |    |                | 3,334,132  |
| <b>TERMINAL UNITS</b>                  |                                                                                                              |          |    |                |            |
| 15690.102                              | Runtal Wall Radiation Units                                                                                  | 80       | LF | 106.60         | 8,528      |
| 15690.106                              | Radiant Heating Panels, Ceiling                                                                              | 4,560    | LF | 38.25          | 174,420    |
| 15691.004                              | Cabinet Unit Heater, Horizontal, Ceiling, 60 MBH                                                             | 11       | EA | 1,617.26       | 17,790     |
| 15691.110                              | Unit Heater, Heavy Duty, 480V, 15KW                                                                          | 1        | EA | 1,418.92       | 1,419      |
| 15691.312                              | Unit Heater, Hot Water, Horizontal, 47 MBH                                                                   | 11       | EA | 717.26         | 7,890      |
| 15692.210                              | Variable Air Volume Box, PI, w/ Damper, Actuator, T-Stat                                                     | 216      | EA | 580.00         | 125,280    |
| 15692.310                              | Induction Unit                                                                                               | 149      | EA | 325.00         | 48,425     |
| ** Total TERMINAL UNITS                |                                                                                                              |          |    |                | 383,752    |
| <b>HVAC PIPING</b>                     |                                                                                                              |          |    |                |            |
| 15700.104                              | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OD, 1/2" OD, HWS/R                                  | 2,660    | LF | 8.82           | 23,448     |
| 15700.106                              | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD, CHWS/R                                 | 3,620    | LF | 10.93          | 39,549     |
| 15700.106                              | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD, HWS/R                                  | 12,030   | LF | 10.93          | 131,428    |
| 15700.108                              | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD, CHWS/R                                   | 1,000    | LF | 14.34          | 14,340     |
| 15700.108                              | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD, HWS/R                                    | 3,915    | LF | 14.34          | 56,141     |



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| Item Code | Description                                                                      | Quantity | UM | Total UnitCost | Total Cost |  |
|-----------|----------------------------------------------------------------------------------|----------|----|----------------|------------|--|
| 15700.110 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/4" OD, CHWS/R   | 1,200    | LF | 18.84          | 22,608     |  |
| 15700.110 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/4" OD, HWS/R    | 2,040    | LF | 18.84          | 38,434     |  |
| 15700.112 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD, CHWS/R   | 850      | LF | 22.82          | 19,397     |  |
| 15700.112 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD, HWS/R    | 1,900    | LF | 22.82          | 43,358     |  |
| 15700.114 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD, CHWS/R       | 1,350    | LF | 32.45          | 43,808     |  |
| 15700.114 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD, HWS/R        | 1,085    | LF | 32.45          | 35,208     |  |
| 15700.116 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2-1/2" OD, CHWS/R   | 650      | LF | 48.66          | 31,628     |  |
| 15700.116 | Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2-1/2" OD, HWS/R    | 1,510    | LF | 48.66          | 73,473     |  |
| 15700.312 | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 3" OD, CHWS/R | 1,660    | LF | 35.66          | 59,191     |  |
| 15700.312 | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 3" OD, HWS/R  | 950      | LF | 35.66          | 33,874     |  |
| 15700.316 | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 4" OD, HWS/R  | 2,600    | LF | 45.02          | 117,064    |  |
| 15700.318 | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 6" OD, HWS/R  | 425      | LF | 89.63          | 38,095     |  |
| 15700.320 | Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 8" OD, HWS/R  | 225      | LF | 126.51         | 28,465     |  |
| 15704.002 | Fiberglass 1/2" Insulation With All Service Jacket 1/2" Pipe, HWS/R              | 2,660    | LF | 3.62           | 9,629      |  |
| 15704.104 | Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe, CHWS/R               | 3,620    | LF | 4.12           | 14,914     |  |
| 15704.104 | Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe, HWS/R                | 12,030   | LF | 4.12           | 49,564     |  |
| 15704.106 | Fiberglass 1" Insulation With All Service Jacket 1" Pipe, CHWS/R                 | 1,000    | LF | 4.33           | 4,325      |  |
| 15704.106 | Fiberglass 1" Insulation With All Service Jacket 1" Pipe, HWS/R                  | 4,915    | LF | 4.33           | 21,257     |  |
| 15704.108 | Fiberglass 1" Insulation With All Service Jacket 1-1/4" Pipe, CHWS/R             | 1,200    | LF | 4.55           | 5,460      |  |
| 15704.108 | Fiberglass 1" Insulation With All Service Jacket 1-1/4" Pipe, HWS/R              | 2,040    | LF | 4.55           | 9,282      |  |
| 15704.202 | Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe, CHWS/R         | 850      | LF | 5.67           | 4,820      |  |
| 15704.202 | Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe, HWS/R          | 1,900    | LF | 5.67           | 10,773     |  |
| 15704.204 | Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe, CHWS/R             | 1,350    | LF | 6.06           | 8,181      |  |
| 15704.204 | Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe, HWS/R              | 1,085    | LF | 6.06           | 6,575      |  |
| 15704.306 | Fiberglass 2" Insulation With All Service Jacket 2-1/2" Pipe, CHWS/R             | 650      | LF | 7.83           | 5,090      |  |
| 15704.306 | Fiberglass 2" Insulation With All Service Jacket 2-1/2" Pipe, HWS/R              | 1,510    | LF | 7.83           | 11,823     |  |
| 15704.308 | Fiberglass 2" Insulation With All Service Jacket 3" Pipe, CHWS/R                 | 1,660    | LF | 8.32           | 13,811     |  |

**CONSTRUCTION****Dover High School - Design Development**

Job #: 15027  
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Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                          | Description                                                            | Quantity | UM | Total UnitCost | Total Cost       |  |
|------------------------------------|------------------------------------------------------------------------|----------|----|----------------|------------------|--|
| 15704.308                          | Fiberglass 2" Insulation With All Service Jacket 3" Pipe, HWS/R        | 950      | LF | 8.32           | 7,904            |  |
| 15704.312                          | Fiberglass 2" Insulation With All Service Jacket 4" Pipe, HWS/R        | 2,600    | LF | 9.99           | 25,961           |  |
| 15704.314                          | Fiberglass 2" Insulation With All Service Jacket 6" Pipe, HWS/R        | 425      | LF | 12.45          | 5,291            |  |
| 15704.316                          | Fiberglass 2" Insulation With All Service Jacket 8" Pipe               | 225      | LF | 15.40          | 3,465            |  |
| 15705.008                          | Air Separator w/ Strainer, 4" Dia.                                     | 3        | EA | 3,098.60       | 9,296            |  |
| 15706.210                          | Expansion Tank, Steel, ASME, Rubber Diaphragm, 119 Gal. Accep. Vol.    | 1        | EA | 4,141.00       | 4,141            |  |
| 15706.214                          | Expansion Tank, Steel, ASME, Rubber Diaphragm, 211 Gal. Accep. Vol.    | 2        | EA | 6,573.73       | 13,147           |  |
| 15706.300                          | Buffer Tank, Indoor, Galvanized Steel, 80 Gal., 24" OD, Chilled Water  | 1        | EA | 3,898.33       | 3,898            |  |
| 15708.102                          | ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 3/8"   | 1,200    | LF | 5.47           | 6,564            |  |
| 15708.106                          | ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 5/8"   | 1,200    | LF | 7.26           | 8,712            |  |
| 15708.110                          | ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 7/8"   | 150      | LF | 8.45           | 1,268            |  |
| 15708.112                          | ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 1-1/8" | 150      | LF | 11.05          | 1,658            |  |
| 15708.300                          | Schedule 40 PVC, w/ Hangers, 1-1/4", Condensate Drain                  | 770      | LF | 14.23          | 10,955           |  |
| 15708.500                          | Valves & Accessories                                                   | 1        | LS | 10,000.00      | 10,000           |  |
| 15708.500                          | Valves & Accessories                                                   | 1        | LS | 40,000.00      | 40,000           |  |
| 15708.500                          | Valves & Accessories                                                   | 1        | LS | 150,000.00     | 150,000          |  |
| <b>** Total HVAC PIPING</b>        |                                                                        |          |    |                | <b>1,327,272</b> |  |
| <b>CONTROLS</b>                    |                                                                        |          |    |                |                  |  |
| 15780.000                          | TRANE BacNet Tracer Controls - Only w/TRANE Eqpmt                      | 1        | LS | 50,000.00      | 50,000           |  |
| 15780.000                          | TRANE BacNet Tracer Controls - Only w/TRANE Eqpmt                      | 1        | LS | 250,000.00     | 250,000          |  |
| 15780.000                          | TRANE BacNet Tracer Controls - Only w/TRANE Eqpmt                      | 1        | LS | 675,000.00     | 675,000          |  |
| <b>** Total CONTROLS</b>           |                                                                        |          |    |                | <b>975,000</b>   |  |
| <b>TEST &amp; BALANCE</b>          |                                                                        |          |    |                |                  |  |
| 15792.001                          | Air & Water Balance                                                    | 308,992  | SF | 0.50           | 154,496          |  |
| <b>** Total TEST &amp; BALANCE</b> |                                                                        |          |    |                | <b>154,496</b>   |  |
| <b>SPECIAL</b>                     |                                                                        |          |    |                |                  |  |
| 15801.501                          | Coordination & Management                                              | 1        | LS | 50,000.00      | 50,000           |  |
| 15801.501                          | Coordination & Management                                              | 1        | LS | 150,000.00     | 150,000          |  |
| 15801.502                          | Commissioning Support                                                  | 1        | LS | 16,250.00      | 16,250           |  |
| 15801.502                          | Commissioning Support                                                  | 1        | LS | 48,750.00      | 48,750           |  |
| 15801.503                          | Coring, Patching & Firestopping                                        | 1        | LS | 10,000.00      | 10,000           |  |
| 15801.503                          | Coring, Patching & Firestopping                                        | 1        | LS | 30,000.00      | 30,000           |  |
| 15801.504                          | Seismic Restraint                                                      | 1        | LS | 6,250.00       | 6,250            |  |
| 15801.504                          | Seismic Restraint                                                      | 1        | LS | 18,750.00      | 18,750           |  |
| 15801.505                          | Fees & Permits (\$15/\$1000) - Waived                                  | 2        | LS |                |                  |  |
| <b>** Total SPECIAL</b>            |                                                                        |          |    |                | <b>330,000</b>   |  |
| <b>* Total 15 - HVAC</b>           |                                                                        |          |    |                | <b>9,249,589</b> |  |
| <b>16 - ELECTRICAL</b>             |                                                                        |          |    |                |                  |  |
| <b>SITE ELECTRICAL</b>             |                                                                        |          |    |                |                  |  |
| 16003.002                          | Transformer / Primary ** ALLOWANCE **                                  | 1        | LS | 50,000.00      | 50,000           |  |
| 16005.008                          | Primary Conduit Only - 5", (1)P, (1)S                                  | 1,180    | LF | 6.75           | 7,965            |  |
| 16005.010                          | Secondary Feeder from Transformer                                      | 115      | LF | 862.12         | 99,144           |  |



**CONSTRUCTION****Dover High School - Design Development**

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Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                                    | Description                                                                    | Quantity | UM | Total UnitCost | Total Cost     |
|----------------------------------------------|--------------------------------------------------------------------------------|----------|----|----------------|----------------|
| 16005.012                                    | 4" Conduit for Tel/CATV/FA/Spare                                               | 3,040    | LF | 4.40           | 13,376         |
| 16005.014                                    | 4" Conduit for New Ballfield Circuit (Conduit Only, No Spare, No Conductor)    | 850      | LF | 4.40           | 3,740          |
| 16005.016                                    | Extend Scoreboard Circuit                                                      | 325      | LF | 6.40           | 2,080          |
| 16005.020                                    | Spare Conduits (4") to Tennis Courts and Comm. Garden                          | 1,000    | LF | 4.40           | 4,400          |
| 16005.300                                    | Relocate Overhead Conductors Underground (\$100/LF)                            | 1        | LS | 22,500.00      | 22,500         |
| 16008.098                                    | Site Lighting Circuitry (Conduit, Wire, Pull Boxes)                            | 7,700    | LF | 11.20          | 86,240         |
| 16008.250                                    | Exterior 18ft Pole Fixture - Custom LED, Single Area (SL1/4HS, SL1/4H, SL1/5H) | 29       | EA | 2,500.00       | 72,500         |
| 16008.251                                    | Exterior 18ft Pole Fixture - Custom LED, Twin Area (SL2/4H, SL2/5H)            | 14       | EA | 2,800.00       | 39,200         |
| 16008.252                                    | Exterior 12ft Pole Fixture - Custom LED, Single Area (SL1/2L, SL1/4L)          | 22       | EA | 2,300.00       | 50,600         |
| 16008.255                                    | SL4 Exterior Wall Mount - LED                                                  | 84       | EA | 555.00         | 46,620         |
| <b>** Total SITE ELECTRICAL</b>              |                                                                                |          |    |                | <b>498,365</b> |
| <b>GENERATORS &amp; ACCESSORIES</b>          |                                                                                |          |    |                |                |
| 16020.210                                    | 350 kW, 438kVA NG Emergency Generator w/Sound Attenuated Enclosure (Cummins)   | 1        | EA | 174,446.07     | 174,446        |
| 16020.210                                    | 80 kW, 100kVA NG Emergency Generator w/Sound Attenuated Enclosure (Cummins)    | 1        | EA | 31,755.00      | 31,755         |
| 16020.212                                    | Emergency Power Equipment and Distribution                                     | 310,380  | SF | 0.50           | 155,190        |
| 16020.214                                    | Emergency Generator - Testing                                                  | 1        | LS | 1,000.00       | 1,000          |
| 16020.214                                    | Emergency Generator - Testing                                                  | 1        | LS | 4,000.00       | 4,000          |
| <b>** Total GENERATORS &amp; ACCESSORIES</b> |                                                                                |          |    |                | <b>366,391</b> |
| <b>SWITCHGEAR</b>                            |                                                                                |          |    |                |                |
| 16030.000                                    | Switchgear / Panelboard - Equipment Only                                       | 1        | LS | 735,000.00     | 735,000        |
| 16030.090                                    | Panel 100A                                                                     | 41       | EA | 244.44         | 10,022         |
| 16030.092                                    | Panel 225A                                                                     | 20       | EA | 293.33         | 5,867          |
| 16030.094                                    | Panel 400A                                                                     | 28       | EA | 661.65         | 18,526         |
| 16030.096                                    | Panel 500A                                                                     | 1        | EA | 770.00         | 770            |
| 16030.097                                    | Panel 600A                                                                     | 2        | EA | 880.00         | 1,760          |
| 16030.099                                    | Panel 800A                                                                     | 7        | EA | 988.76         | 6,921          |
| 16030.108                                    | Transformer Dry Type, Three Phase, 45kVA, T-5                                  | 12       | EA | 1,100.00       | 13,200         |
| 16030.110                                    | Transformer Dry Type, Three Phase, 75kVA, T-6                                  | 9        | EA | 1,194.29       | 10,749         |
| 16030.112                                    | Transformer Dry Type, Three Phase, 112.5kVA                                    | 2        | EA | 4,182.78       | 8,366          |
| 16030.114                                    | Transformer Dry Type, Three Phase, 150kVA                                      | 1        | EA | 5,137.65       | 5,138          |
| 16030.120                                    | Transformer Dry Type, Three Phase, 225kVA, T-9                                 | 5        | EA | 1,880.00       | 9,400          |
| 16030.222                                    | ATS-LS - 150A (Included w/Generator Price)                                     |          | EA | 3,591.67       |                |
| 16030.226                                    | ATS-AS 260A, 3P (Included w/Generator Price)                                   |          | EA | 5,190.00       |                |
| 16030.232                                    | ATS-OS - 800A, 3P (Included w/Generator Price)                                 |          | EA | 11,200.00      |                |
| 16030.324                                    | Switchboard, Panels, Circuit Breakers 1600A 480V 3 Phase                       | 1        | EA | 6,285.71       | 6,286          |
| 16030.326                                    | Switchboard, Panels, Circuit Breakers 4000A 480V 3 Phase                       | 1        | EA | 13,285.71      | 13,286         |
| <b>** Total SWITCHGEAR</b>                   |                                                                                |          |    |                | <b>845,290</b> |
| <b>POWER DISTRIBUTION</b>                    |                                                                                |          |    |                |                |
| 16040.060                                    | Grounding/Bonding                                                              | 1        | LS | 10,000.00      | 10,000         |
| 16040.200                                    | 15 KVA UPS                                                                     | 1        | EA | 15,000.00      | 15,000         |
| 16040.202                                    | 30 KVA UPS                                                                     | 3        | EA | 25,000.00      | 75,000         |





# CONSTRUCTION

## Dover High School - Design Development

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 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                          | Description                              | Quantity | UM | Total UnitCost | Total Cost     |
|------------------------------------|------------------------------------------|----------|----|----------------|----------------|
| 16040.470                          | MI Cable - 4 Conductor, #6               | 1,770    | LF | 24.65          | 43,631         |
| 16040.472                          | MI Cable Termination Kits                | 16       | EA | 105.00         | 1,680          |
| 16040.480                          | T-5 Primary - AS                         | 15       | EA | 15.32          | 230            |
| 16040.481                          | T-5 Secondary - AS                       | 15       | LF | 37.54          | 563            |
| 16040.482                          | T-5 (K13) Primary - UG                   | 30       | LF | 11.96          | 359            |
| 16040.483                          | T-5 (K13) Secondary                      | 18       | LF | 43.89          | 790            |
| 16040.484                          | T-5 Primary                              | 540      | LF | 15.32          | 8,273          |
| 16040.485                          | T-5 Primary - UG                         | 1,450    | LF | 11.96          | 17,342         |
| 16040.486                          | T-5 Secondary                            | 145      | LF | 37.54          | 5,443          |
| 16040.487                          | T-6 (K13) Primary - UG                   | 700      | LF | 16.16          | 11,312         |
| 16040.488                          | T-6 (K13) Secondary                      | 40       | LF | 76.92          | 3,077          |
| 16040.489                          | T-6 Primary                              | 245      | LF | 20.70          | 5,072          |
| 16040.490                          | T-6 Secondary                            | 80       | LF | 60.56          | 4,845          |
| 16040.491                          | T-7 Primary                              | 230      | LF | 22.17          | 5,099          |
| 16040.492                          | T-7 Secondary                            | 32       | LF | 85.83          | 2,747          |
| 16040.493                          | T-8 (K13) Primary                        | 28       | LF | 54.20          | 1,518          |
| 16040.494                          | T-8 (K13) Secondary                      | 15       | LF | 142.50         | 2,138          |
| 16040.495                          | T-9 Primary                              | 30       | LF | 65.01          | 1,950          |
| 16040.496                          | T-9 Secondary                            | 85       | LF | 208.00         | 17,680         |
| 16040.497                          | T-9 Primary - UG                         | 840      | LF | 52.30          | 43,932         |
| 16040.498                          | T-9 (K13) Primary                        | 55       | LF | 65.01          | 3,576          |
| 16040.499                          | T-9 (K13) Secondary                      | 46       | LF | 249.00         | 11,454         |
| 16040.500                          | ATS-LS Feeder, From Gen.                 | 130      | LF | 20.75          | 2,698          |
| 16040.502                          | ATS-OS Feeder, From Gen.                 | 130      | LF | 32.37          | 4,208          |
| 16040.506                          | Emergency Lighting Panel Feeder          | 16       | LF | 20.75          | 332            |
| 16040.508                          | 60A Feeder                               | 16       | LF | 13.25          | 212            |
| 16040.510                          | 100A Feeder                              | 3,152    | LF | 27.00          | 85,104         |
| 16040.510                          | 100A Feeder - UG                         | 665      | LF | 22.00          | 14,630         |
| 16040.512                          | 150A Feeder                              | 925      | LF | 37.75          | 34,919         |
| 16040.512                          | 150A Feeder - UG                         | 285      | LF | 33.75          | 9,619          |
| 16040.512                          | Animal Science Generator Feeder - UG     | 135      | LF | 24.85          | 3,355          |
| 16040.514                          | 200A Feeder                              | 85       | LF | 47.71          | 4,056          |
| 16040.516                          | 225A Feeder                              | 45       | LF | 54.33          | 2,445          |
| 16040.516                          | Animal Science Feeder - UG (from MSBGC)  | 600      | LF | 59.30          | 35,580         |
| 16040.518                          | 250A Feeder                              | 13       | LF | 62.33          | 810            |
| 16040.522                          | 400A Feeder                              | 2,210    | LF | 82.43          | 182,168        |
| 16040.524                          | 600A Feeder                              | 200      | LF | 124.67         | 24,933         |
| 16040.524                          | 600A Feeder - UG                         | 265      | LF | 114.67         | 30,387         |
| 16040.526                          | 800A Feeder                              | 50       | LF | 166.89         | 8,345          |
| 16040.530                          | 1600A Feeder                             | 315      | LF | 315.00         | 99,225         |
| <b>** Total POWER DISTRIBUTION</b> |                                          |          |    |                | <b>835,733</b> |
| <b>BRANCH</b>                      |                                          |          |    |                |                |
| 16050.102                          | Device Box                               | 2,194    | EA | 29.75          | 65,272         |
| 16050.102                          | Junction Box                             | 622      | EA | 29.75          | 18,505         |
| 16050.102                          | Power and Branch Circuitry               | 310,380  | SF | 2.50           | 775,950        |
| 16050.104                          | Floor Box w/Power and Data               | 64       | EA | 107.50         | 6,880          |
| 16050.106                          | Quad Receptacle                          | 435      | EA | 40.00          | 17,400         |
| 16050.108                          | Duplex / Duplex GFI / Weatherproof       | 1,571    | EA | 30.20          | 47,444         |
| 16050.110                          | EPO                                      | 7        | EA | 111.40         | 780            |
| 16050.132                          | Device Plate, Plastic, 2-Gang            | 1,571    | EA | 9.10           | 14,299         |
| 16050.136                          | Device Plate, Plastic, 4-Gang            | 435      | EA | 18.90          | 8,220          |
| 16060.414                          | RTU, MUA, ERV, HVU Feeder                | 25       | EA | 2,706.00       | 67,650         |
| 16060.416                          | Boiler Feeder                            | 2        | EA | 1,201.75       | 2,404          |
| 16060.416                          | Boiler Feeder                            | 4        | EA | 1,401.75       | 5,607          |
| 16060.418                          | Pump Feeder                              | 2        | EA | 1,315.75       | 2,632          |
| 16060.418                          | Pump Feeder                              | 4        | EA | 1,965.75       | 7,863          |
| 16060.420                          | Chiller Feeder                           | 1        | EA | 8,336.00       | 8,336          |
| 16061.000                          | Wire / Install BB Hoop Motor and Control | 8        | EA | 5,000.00       | 40,000         |
| 16061.001                          | Wire / Install Scoreboard & Jacks        | 2        | EA | 3,500.00       | 7,000          |



# CONSTRUCTION

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 Group 2: Minor ItemCode Groups

| Item Code                | Description                                      | Quantity | UM  | Total UnitCost | Total Cost       |
|--------------------------|--------------------------------------------------|----------|-----|----------------|------------------|
| 16061.003                | Misc Devices in Gym/Auditorium                   | 9        | EA  | 1,500.00       | 13,500           |
| 16061.005                | Equipment Control Devices                        | 11       | EA  | 1,500.00       | 16,500           |
| <b>** Total BRANCH</b>   |                                                  |          |     |                | <b>1,126,240</b> |
| <b>LIGHTING</b>          |                                                  |          |     |                |                  |
| 16080.000                | LV Chair Lighting in Auditorium                  | 1        | LS  | 10,000.00      | 10,000           |
| 16080.202                | EL Fixture - 4ft Linear LED                      | 1        | EA  | 281.25         | 281              |
| 16080.206                | LP4 Fixture - 4ft LED Direct Pendant             | 21       | EA  | 281.25         | 5,906            |
| 16080.207                | LPG Fixture - High Bay LED                       | 81       | EA  | 422.50         | 34,223           |
| 16080.208                | LP8 Fixture - 8ft LED Direct Pendant             | 461      | EA  | 555.00         | 255,855          |
| 16080.210                | LPD1 Fixture - Round LED Pendant                 | 13       | EA  | 177.50         | 2,308            |
| 16080.211                | LPD2 Fixture - Round LED Pendant                 | 20       | EA  | 177.50         | 3,550            |
| 16080.212                | LPD3 Fixture - Round LED Pendant                 | 12       | EA  | 177.50         | 2,130            |
| 16080.213                | LPD4 Fixture - LED Ring Pendant                  | 22       | EA  | 281.25         | 6,188            |
| 16080.214                | LR4 Fixture - 4ft LED Recessed                   | 3        | EA  | 280.00         | 840              |
| 16080.215                | LR8 Fixture - 8ft LED Recessed                   | 84       | EA  | 368.75         | 30,975           |
| 16080.216                | LR14 Fixture - 1ftx4ft LED Recessed              | 310      | EA  | 255.00         | 79,050           |
| 16080.217                | LR22 Fixture - 2ftx2ft LED Recessed              | 27       | EA  | 255.00         | 6,885            |
| 16080.218                | LR24 Fixture - 2ftx4ft LED Recessed              | 277      | EA  | 298.75         | 82,754           |
| 16080.219                | IU Fixture (Darkroom In Use)                     | 1        | EA  | 291.25         | 291              |
| 16080.222                | LRD5 Fixture - 5ft Round LED Fixture             | 4        | EA  | 449.50         | 1,798            |
| 16080.223                | LRK Fixture - 2ftx4ft LED Recessed (Outdoor)     | 53       | EA  | 318.75         | 16,894           |
| 16080.226                | LS2 Fixture - 2ft LED Linear                     | 1        | EA  | 216.25         | 216              |
| 16080.227                | LS4 Fixture - 4ft LED Linear                     | 28       | EA  | 241.25         | 6,755            |
| 16080.228                | LS8 Fixture - 8ft LED Linear                     | 103      | EA  | 305.00         | 31,415           |
| 16080.229                | LSV4 Fixture - 4ft LED Linear Vandal Proof       | 41       | EA  | 291.25         | 11,941           |
| 16080.230                | LSV8 Fixture - 8ft LED Linear Vandal Proof       | 79       | EA  | 355.00         | 28,045           |
| 16080.231                | LW4 Fixture - 4ftx4ft LED Linear Direct/Indirect | 86       | EA  | 305.00         | 26,230           |
| 16080.233                | LWS Fixture - Continuous LED Slot                | 4        | EA  | 295.00         | 1,180            |
| 16080.234                | PC1 Fixture - Round LED Pendant                  | 36       | EA  | 151.25         | 5,445            |
| 16080.235                | PC2 Fixture - Round LED Pendant                  | 25       | EA  | 151.25         | 3,781            |
| 16080.236                | RC1 Fixture - 6in LED Round Downlight            | 158      | EA  | 141.25         | 22,318           |
| 16080.238                | RC2 Fixture - 4in LED Round Downlight            | 4        | EA  | 125.75         | 503              |
| 16080.240                | RSH Fixture - 6" Downlight                       | 12       | EA  | 141.25         | 1,695            |
| 16080.241                | RS Fixture - Exit Lamps, Double Faced, LED       | 46       | EA  | 136.06         | 6,259            |
| 16080.242                | LRS Fixture - 4in LED Linear Recessed            | 58       | EA  | 281.25         | 16,313           |
| 16080.243                | S1 Fixture - 16" Cylinder LED Downlight          | 12       | EA  | 393.75         | 4,725            |
| 16080.244                | SC1 Fixture - 24" Dia., LED Luminous Ring        | 16       | EA  | 443.75         | 7,100            |
| 16080.300                | Occupancy Sensor                                 | 340      | EA  | 110.00         | 37,400           |
| 16080.301                | Photo Sensor                                     | 117      | EA  | 110.00         | 12,870           |
| 16081.100                | Lighting Circuitry                               | 310,380  | SF  | 2.00           | 620,760          |
| 16081.102                | Lighting Controls                                | 310,380  | SF  | 1.25           | 387,975          |
| 16081.104                | Lighting Controls & Panels - Testing             | 1        | LS  | 500.00         | 500              |
| 16081.104                | Lighting Controls & Panels - Testing             | 1        | LS  | 1,000.00       | 1,000            |
| 16081.104                | Lighting Controls & Panels - Testing             | 1        | LS  | 25,000.00      | 25,000           |
| 16081.150                | Stage Lights / Sound System / Dimmer Rack **     | 1        | LS  | 375,000.00     | 375,000          |
| <b>ALLOWANCE **</b>      |                                                  |          |     |                |                  |
| <b>** Total LIGHTING</b> |                                                  |          |     |                | <b>2,174,352</b> |
| <b>COMMUNICATIONS</b>    |                                                  |          |     |                |                  |
| 16100.000                | Sound System - Cafeteria                         | 1        | LS  | 20,000.00      | 20,000           |
| 16100.001                | Sound System - Gymnasium                         | 1        | LS  | 20,000.00      | 20,000           |
| 16100.002                | Sound System - Music Room                        | 1        | LS  | 10,000.00      | 10,000           |
| 16100.003                | Bi-Directional Antennae                          | 1        | LS  | 50,000.00      | 50,000           |
| 16100.004                | Area of Refuge Assistance System                 | 310,380  | SF  | 0.15           | 46,557           |
| 16100.101                | EMT 3/4", Tel/Data Drops                         | 12,092   | LF  | 4.46           | 53,925           |
| 16100.102                | Device Box - Tel/Data Drops                      | 1,145    | EA  | 29.75          | 34,064           |
| 16110.000                | Tel/Data Infrastructure ** ALLOWANCE **          | 1        | LS  | 40,000.00      | 40,000           |
| 16110.024                | Voice/Data Outlet, Single Port, SS Wall Plate    | 1,343    | EA  | 32.21          | 43,264           |
| 16110.044                | CAT VI Cable - Tel/Data                          | 1,343    | CLF | 86.86          | 116,649          |



# CONSTRUCTION

## Dover High School - Design Development

Job #: 15027  
 Project Size: 310380 SF  
 Detail - With Taxes and Insurance

Estimator: KN, JB, MT, AM  
 Group 1: Major ItemCode Groups  
 Group 2: Minor ItemCode Groups

| Item Code                      | Description                                                                       | Quantity | UM  | Total UnitCost | Total Cost        |
|--------------------------------|-----------------------------------------------------------------------------------|----------|-----|----------------|-------------------|
| 16110.050                      | Cable Tray, Server Room / IDF Closets                                             | 90       | LF  | 30.48          | 2,743             |
| 16110.052                      | J-Hooks, 4" (Every 4 ft) - Tel/Data                                               | 2,167    | EA  | 42.57          | 92,255            |
| 16180.000                      | Master Clock Station and Wiring                                                   | 310,380  | SF  | 0.30           | 93,114            |
| 16180.002                      | Clock                                                                             | 206      | EA  | 105.00         | 21,630            |
| 16180.004                      | Intercom Stations and Wiring                                                      | 310,380  | SF  | 0.85           | 263,823           |
| 16180.006                      | Speaker                                                                           | 306      | EA  | 155.00         | 47,430            |
| 16180.100                      | Communications - Testing                                                          | 1        | LS  | 20,000.00      | 20,000            |
| <b>** Total COMMUNICATIONS</b> |                                                                                   |          |     |                | <b>975,454</b>    |
| <b>SECURITY</b>                |                                                                                   |          |     |                |                   |
| 16200.000                      | Security System - Head End Equipment                                              | 1        | LS  | 55,000.00      | 55,000            |
| 16200.002                      | Fixed Interior CCTV Cameras (Changed from \$3,000 per Consultant 25APR16)         | 119      | EA  | 2,000.00       | 238,000           |
| 16200.004                      | Pan-Tilt-Zoom Exterior CCTV Cameras (Changed from \$5,000 per Consultant 25APR16) | 27       | EA  | 3,500.00       | 94,500            |
| 16200.101                      | Card Readers - Swipes/Wires                                                       | 57       | EA  | 1,700.00       | 96,900            |
| 16200.142                      | Motion Sensor                                                                     | 96       | EA  | 123.25         | 11,832            |
| 16200.150                      | Panic Button                                                                      | 6        | EA  | 180.00         | 1,080             |
| 16200.300                      | Intrusion Alarm Keypad                                                            | 4        | EA  | 491.25         | 1,965             |
| 16200.400                      | Request-to-Exit Panic Hardware (In Division 8)                                    | 21       | EA  |                |                   |
| <b>** Total SECURITY</b>       |                                                                                   |          |     |                | <b>499,277</b>    |
| <b>FIRE ALARM</b>              |                                                                                   |          |     |                |                   |
| 16300.104                      | Fire Alarm Testing                                                                | 2        | LS  | 750.00         | 1,500             |
| 16300.104                      | Fire Alarm Testing                                                                | 1        | LS  | 7,500.00       | 7,500             |
| 16300.105                      | Fire Alarm Control Panel (Addressable)                                            | 1        | EA  | 10,500.00      | 10,500            |
| 16300.107                      | Fire Alarm Terminal Cabinet                                                       | 10       | EA  | 1,200.00       | 12,000            |
| 16300.120                      | Remote Annunciator                                                                | 4        | EA  | 567.00         | 2,268             |
| 16300.132                      | Manual Pull Stations                                                              | 30       | EA  | 108.50         | 3,255             |
| 16300.134                      | Smoke/Heat Detectors                                                              | 192      | EA  | 178.00         | 34,176            |
| 16300.138                      | CO Detectors / Monitors                                                           | 12       | EA  | 212.50         | 2,550             |
| 16300.174                      | FA Speakers                                                                       | 282      | EA  | 130.25         | 36,731            |
| 16300.178                      | Strobes                                                                           | 54       | EA  | 165.50         | 8,937             |
| 16300.180                      | Horn/Strobes                                                                      | 32       | EA  | 231.50         | 7,408             |
| 16300.244                      | Knox Box                                                                          | 2        | EA  | 405.00         | 810               |
| 16300.248                      | Magnetic Door Holder                                                              | 34       | EA  | 255.00         | 8,670             |
| 16300.300                      | Audible / Visual / Detection Loop MC Cable                                        | 284      | CLF | 425.00         | 120,700           |
| 16300.304                      | FA Wiring                                                                         | 51,950   | LF  | 0.96           | 49,820            |
| 16300.400                      | EMT 3/4" - Audible / Visual / Detection Loop Conduit                              | 7,080    | LF  | 4.46           | 31,574            |
| 16300.402                      | EMT 1" - FATC Feeder Conduit                                                      | 1,970    | LF  | 5.19           | 10,224            |
| <b>** Total FIRE ALARM</b>     |                                                                                   |          |     |                | <b>348,623</b>    |
| <b>MISCELLANEOUS</b>           |                                                                                   |          |     |                |                   |
| 16400.002                      | Lightning Protection                                                              | 1        | LS  | 30,000.00      | 30,000            |
| 16400.100                      | Commissioning                                                                     | 1        | LS  | 60,000.00      | 60,000            |
| 16400.102                      | Firestopping                                                                      | 1        | LS  | 20,000.00      | 20,000            |
| 16400.104                      | Identification                                                                    | 1        | LS  | 7,500.00       | 7,500             |
| 16400.106                      | Seismic Restraint                                                                 | 1        | LS  | 12,500.00      | 12,500            |
| 16400.108                      | Fees & Permits (\$15/\$1000) - Waived                                             | 2        | LS  |                |                   |
| <b>** Total MISCELLANEOUS</b>  |                                                                                   |          |     |                | <b>130,000</b>    |
| <b>* Total 16 - ELECTRICAL</b> |                                                                                   |          |     |                | <b>7,799,725</b>  |
| <b>Total Gross Cost</b>        |                                                                                   |          |     |                | <b>67,512,209</b> |