## **Key Quantity and Metrics List**

|                | quantity and mean   |                            |   |                           |   |                   |           | [Project Name]  |  |                   |
|----------------|---|----------------------------|---|---------------------------|---|-------------------|-----------|---|--|-------------------|
| Trac           | Quantity  | WBS Code (2.2)             | Description of Quantity  MMR Notes  | DC-1 DC-2 DC-3 DC-4 SSB-1 | Primary Subontractor  SSR-2 SSR-3 SSR-4 Campus-1 Campus-1 | Campus-3 Campus-4 | DC-1 DC-2 | Secondary Contractor (Remaining Contractor(s) Impacting the Trade)  DC-3 DC-4 SSB-1 SSB-2 SSB-3 SSB-4 Campus-1 Campus-2 Campus-3 Campus | Project Total  Project Total  Project Strain |                   |
| ę              | Total MW  | n/a                        | What is the total megawattage?  | 301 302 300 304 3021      | CCC 2 CCC CCC CCCCCC CCCCCCCCCCCCCCCCC                    | Sumpas o Sumpas 4 | 501 502   | See   | 301 301 302 300 304 3021 3022 303  | O MW              |
| aral In        | Total Gross Floor Area  | n/a                        | What is the total gross floor area?   |                           |   |                   |           |   |  | 0 SF              |
| Gen            | Total Site Area   | n/a                        | What is the total site area in acres?   |                           |   |                   |           |   |  | 0 ACRES           |
|                | Total Labor Hours (Staff)   | 301.000                    | What is the total of labor hours?   |                           |   |                   |           |   |  | 0 Hours           |
| sions          | Average Labor Months  | 301.000                    | What is the average monthly labor hour count?   |                           |   |                   |           |   |  | 0 Hours           |
| Sondii<br>Sign | Average Headcount per Month  Preconstruction Duration in Months - (start of             | 301.000                    | What is the average headcount per month?  |                           |   |                   |           |   |  | 0 Headcoun        |
| eral           | preconstruction to break ground)  Overall Construction Duration in Months - (break      | 301.000                    | What is the preconstruction duration?  What is the overall construction duration (break ground  |                           |   |                   |           |   |  | 0 Months 0 Months |
| æ              | ground from completion of commissioning)  Overall Construction Duration Months - (first |                            | to end of commissioning)?  What is the overall construction duration (foundation  |                           |   |                   |           |   |  |                   |
|                | concrete/foundation start to end of commissioning)                                      | 301.000                    | start to end of commissioning)?   |                           |   |                   |           |   |  | 0 Months          |
|                | CY of Total Earthwork (inclusive of soil, rock, etc.)                                   |                            | What is the total CY of total Earthwork, inclusive of soil, rock, etc.?)  |                           |   |                   |           |   |  | 0 CY              |
|                | CY of Rock Excavation  CY of Excavation - Site MV Ductbanks                             | 302.000                    | What is the total CY of rock excavation?  |                           |   |                   |           |   |  | 0 CY              |
|                | CY of Excavation - Site MV Ductbanks CY of Excavation - Site LV Ductbanks               |                            | What is the total CY of total Earthwork  What is the total CY of total Earthwork  |                           |   |                   |           |   |  | 0 CY<br>0 CY      |
|                | CY of Excavation - Site Telecom - IT Ductbanks  |                            | What is the total CY of total Earthwork   |                           |   |                   |           |   |  | 0 CY              |
|                | LF Domestic Water Supply  | 302.300.301                | What is the total linear feet of domestic site water supply?  |                           |   |                   |           |   |  | 0 LF              |
|                | LF Fire Service   | 302.300.302                | What is the total linear feet of site fire service?   |                           |   |                   |           |   |  | 0 LF              |
|                | LF Process Water  | 302.300.303                | What is the total linear feet of site process water?  |                           |   |                   |           |   |  | 0 LF              |
| 놓              | LF Sanitary Sewer   | 302.300.304                | What is the total linear feet of site wet sanitary sewer?   |                           |   |                   |           |   |  | 0 LF              |
| Site W         | LF Process Waste  | 302.300.305                | What is the total linear feet of site process waste?  |                           |   |                   |           |   |  | 0 LF              |
| S              | LF Storm Drainage   | 302.300.306                | What is the total linear feet of site storm drainage?  What is the total square footage of landscaping  |                           |   |                   |           |   |  | 0 LF              |
|                | Total SF of Landscaping  Total SF of Permanent Hardscape                                | 302.500.501<br>302.500.502 | (planting, seeding, shrubs, trees, etc.)? What is the total square footage of hardscape (paving,  |                           |   |                   |           |   |  | 0 SF<br>0 SF      |
|                | Asphalt Paving  | 302.500.502                | roads, concrete sidewalks, etc.)? What is the total square yards of asphalt (paving, roads,   |                           |   |                   |           |   |  | 0 SF              |
|                | Concrete Paving & Exterior Flatwork   | 302.500.502                | sidewalks, etc.)? What is the total square footage of concrete exterior flatwork (paving, roads, concrete sidewalks, etc.)?   |                           |   |                   |           |   |  | 0 SF              |
|                | Gravel Yard & Drive   | 302.500.502                | nativorit (paving, roads, concrete sidewalks, etc.)? What is the total square yards of gravel permanent surface (drives, yards etc.)?   |                           |   |                   |           |   |  | 0 SF              |
|                | Curb and Gutter   | 302.500.502                | What is the total linier feet of curb and gutter?   |                           |   |                   |           |   |  | 0 LF              |
|                | Total SF of Temporary Site Logistics  | 302.400.403                | What is the total square footage of temporary site<br>logistics (temporary paving, etc.)?   |                           |   |                   |           |   |  | 0 SF              |
|                | Total LF of Perimeter Fence   | 302.400.403                | What is the total linear feet of Perimeter Fence?  What is the total linear feet of Perimeter Fence?  What is the total cusic yards or concrete uses nor  Foundations: ONL Fleetrical Methodiscal Variant Sah & |                           |   |                   |           |   |  | 0 LF              |
|                | Mechanical Yard Slah & Fruinment Curbs  Concrete Total CY (Slab on Metal                | 303.200.201<br>304.100.102 | What is the total cubic yards of concrete used for slab   |                           |   |                   |           |   |  | 0 CY<br>0 CY      |
|                | Deck/Curbs/Pads/Treads) Total tonnage of joists   | 304.200.202                | on metal deck, curbs, pads, treads? What is the total? Accessories?   |                           |   |                   |           |   |  | 0 Ton             |
| E              | Total tonnage of W members and HSS  | 304.200.201                | What is the total tonnage of W members and HSS-<br>include fittings and accessories?  |                           |   |                   |           |   |  | 0 Ton             |
| Struct         | Total tonnage of Structural Steel   | 304.200.201                | What is the total tonnage of structure steel (joists + W members/HSS)   |                           |   |                   |           |   |  | 0 Ton             |
| nber           | Metal Deck Total SF   | 304.600.603                | What is the total square footage of metal deck - roof and floor decks?  |                           |   |                   |           |   |  | 0 SF              |
| Spur           | Total Exterior Glazing SF   | 304.600.608                | What is the total square footage of exterior glazing?   |                           |   |                   |           |   |  | 0 SF              |
| Sub            | Total Precast Wall SF   | 304.600.602                | What is the total square footage of precast wall area?  What is the total square footage of metal wall panels or  |                           |   |                   |           |   |  | 0 SF              |
|                | Total Metal Wall Panel or Other Panelized Systems SI                                    |                            | other panelized systems?  |                           |   |                   |           |   |  | 0 SF              |
|                | Total Exterior Wall Area SF  Total Roof Area SF   | 304.600                    | What is the total square footage of exterior wall area?  What is the total roof area square footage?  |                           |   |                   |           |   |  | 0 SF<br>0 SF      |
|                | Total Interior Wall Partitions SF   | 305.200.201                | What is the total square footage of interior wall partitions?   |                           |   |                   |           |   |  | 0 SF              |
| 5              | Total Interior Glazing SF   | 305.200.202                | partitions?  What is the total square footage of interior glazing?  |                           |   |                   |           |   |  | 0 SF              |
| E              | Total Interior Door Sets  | 305.100.101                | What is the total number of interior door sets?   |                           |   |                   |           |   |  | 0 Each            |
| Cons           | Number of passenger elevators   | 305.800.801                | What is the total number of passenger elevators?  |                           |   |                   |           |   |  | 0 Each            |
| erior          | Number of freight elevators   | 305.800.801                | What is the total number of freight elevators?  What is the total linear footage of hot air containment   |                           |   |                   |           |   |  | 0 Each            |
| Ξ              | Linear footage of hot air containment aisles  | 305.600.601                | aisles?   |                           |   |                   |           |   |  | 0 LF              |
|                | Number of aisles Subcontractor  | 305.600.601                | What is the total number of hot air containment aisles?  Mechanical Subcontractor   |                           | Primary Subcontractor                                     |                   |           | Secondary Contractor (Remaining Contractor(s) Impacting the Trade)  | Project Totals   | 0 Each            |
|                | Total Labor Hours for Mechanical Work (Direct)  | 315.100.101                | What is the total labor hours for direct mechanical +   |                           | Filling Subcontactor                                      |                   |           | Secondary Contractor (Nemanning Contractor(s) impacting the Trade)  | Project Island   | 0 Hours           |
|                | Total Labor Hours for Plumbing Work (Direct)  | 315.100.101                | HVAC work?  What is the total labor hours for direct plumbing work?   |                           |   |                   |           |   |  | 0 Hours           |
|                | Project Staffing Labor Hours for Mechanical Work<br>(Indirect)                          |                            | What is the total general conditions/management hours<br>for indirect mechanical + HVAC work?   |                           |   |                   |           |   |  | 0 Hours           |
|                | Project Staffing Labor Hours for Plumbing Work  | 315.101.101                | What is the total general conditions/management hours   |                           |   |                   |           |   |  | 0 Hours           |
|                | (Indirect)  |                            | for indirect plumbing work?   |                           |   |                   |           |   |  |                   |
| AC.            | Composite Labor Rate (Mechanical)   | 315                        | Composite Labor Rate (Mechanical)   |                           |   |                   |           |   |  | \$/HR             |
| Ž P            | Composite Labor Rate (Plumbing)   | 315                        | Composite Labor Rate (Plumbing)   |                           |   |                   |           |   |  | \$/HR             |
| ng an          | Number of Plumbing Fixtures   | 315.200.203                | What is the total number of plumbing fixtures (ex. WCs, sinks, lavs, showers, urinals, chem showers)  |                           |   |                   |           |   |  | 0 Each            |
| lumbi          | LF of Sanitary System   | 315.200.202                | What is total length of sanitary system piping (excl condensate drainage)?  |                           |   |                   |           |   |  | 0 LF              |
| ď              | LF of Domestic Water Piping   | 315.200.202                | What is the total length of domestic water piping?  |                           |   |                   |           |   |  | 0 LF              |
|                | LF of Condenser Water Piping  | 315.400.402                | What is the total length of condenser water piping?   |                           |   |                   |           |   |  | 0 LF              |
|                | LF of Refrigerant Piping  | 315.400.404                | What is the total length of refrigerant piping?  What is the total length of facility water piping (ex.   |                           |   |                   |           |   |  | 0 LF              |
|                | LF of Facility Water Piping  LF of Technical Water Piping                               | 315.300.304<br>315.300.305 | what is the total length of technical water piping (ex. chilled water)?  What is the total length of technical water piping?  |                           |   |                   |           |   |  | 0 LF<br>0 LF      |
|                | LF of Fire Protection Pipe  | 315.800.801                | What is the total length of fire protection pipe without  |                           |   |                   |           |   |  | 0 LF              |
|                | Pounds of Sheet Metal Ductwork  | 315.500.504                | flex pipe?  What is the total poundage of sheet metal ductwork?   |                           |   |                   |           |   |  | 0 LBs             |
| S              | Total control points for BMS  | 320                        | What is the total number of control points in BMS?  |                           |   |                   |           |   |  | 0 Points          |
| B              | Commissioning hours for BMS   | 320                        | What is the total number of commissioning hours for<br>BMS?   |                           |   |                   |           |   |  | 0 Hours           |
|                | Subcontractor   |                            | Electrical Subcontractor  |                           | Main Contractor   |                   |           | Secondary Contractor (Remaining Contractor(s) Impacting the Trade)  | Project Totals   |                   |
|                | Total Labor Hours for Electrical Work (Direct)  | 316.100.101                | What is the total labor hours for direct electrical work (ex. field labor, excludes project staffing management)? warehouseman, laborers, spotters, etc.  | 567,079                   |   |                   |           |   |  | 567,079 Hours     |
|                | Project Staffing Labor Hours for Electrical Work  | 216 100 101                |   | 274,294                   |   |                   |           |   |  | 274 204           |
|                | Project Staffing Labor Hours for Electrical Work<br>(Indirect)                          |                            | What is the total general conditions/management hours<br>includes all staff hours + General Foreman. Excludes<br>for indirect electrical work?<br>warehouseman, laborers, spotters, etc.                        |                           |   |                   |           |   |  | 274,294 Hours     |
|                | Total hours of commissioning  | 316.100.104                | What is the total hours of commissioning?   | 80,709                    |   |                   |           |   |  | 80,709 Hours      |
|                | Composite Labor Rate (Electrical)  LF of Rack Bus                                       | 316<br>316.700.711         | Composite Labor Rate (Electrical)  TBD  What is the total lineal feet of rack bus?  By FSHAC or LV Skid MOFE  | 0                         | 0   |                   |           |   |  | \$/HR<br>0 LF     |
|                | LF Cable Tray   | 316.800.802                | Includes Tray as shown on the Technology Drawings   | 60,149 1,28               | 5   |                   |           |   |  | 0 LF<br>61,434 LF |
|                | Quantity of Light Fixtures  | 316.700.716                | what is the total quantity of light fixtures (ex. one count<br>per fixture regardless of size or length   | 1,088 23                  | 7   |                   |           |   |  | 1,325 Each        |
|                | Quantity of Lighting Control Devices  | 316.700.716                | per incure regardness or size or length  What is the total quantity of Lighting Control devices   | 232 8                     | 1   |                   |           |   |  | 313 Each          |
|                | Quantity of Receptacles (Branch Power Devices)  | 316.700.712                | What is the total quantity of receptacles (branch power devices)?   | 1,059 21                  | 5   |                   |           |   |  | 1,274 Each        |
|                |   |                            |   |                           |   |                   |           |   |  |                   |

## **Key Quantity and Metrics List**

|   |                            |   |   |           |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       | [Project Na | ame]  |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         |           |
|---|----------------------------|---|---|-----------|------|------|------|--------|----------------|----------|--------|-------------|------------|-----------|-----------|------|------|-----------|--|-------|-------------|-------|----------|----------|----------|----------|------|------|----------------|------|-------|----------|-----------|--------|-------------|--------------|---------|-----------|
| Quantity  | WBS Code (2.2              | ) Description of Quantity   |   |           |      |      |      | Pri    | imary Subontra | actor    |        |             |            |           |           |      |      | Secondary | condary Contractor (Remaining Contractor(s) Impacting the Trade) |       |             |       |          |          |          |          |      |      | Project Totals |      |       |          |           |        |             |              |         |           |
|   |                            |   | MMR Notes   | DC-1      | DC-2 | DC-3 | DC-4 | SSB-1  | SSB-2 SSE      | B-3 SSB- | -4 Car | ampus-1 Cam | ous-2 Camp | us-3 Camp | us-4 DC-1 | DC-2 | DC-3 | DC-4      | SSB-1  | SSB-2 | SSB-3       | SSB-4 | Campus-1 | Campus-2 | Campus-3 | Campus-4 | DC-1 | DC-2 | DC-3           | DC-4 | SSB-1 | SSB-2 SS | B-3 SSB-4 | Campus | -1 Campus-2 | 2 Campus-3 C | ampus-4 | Total     |
| Quantity of Mechanical Connections  | 316.700.712                | What is the total quantity of mechanical connections?<br>(Ex. AHU, FCA, CDU, Fans, Heaters, Etc.)   | Includes Connections to VAV's, CDU's, FC Whips,<br>CRAC's, HUM's, UHE's, EF's, etc.                         | 2,133     |      |      |      | 25     |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 2,158     |
| CY of Concrete Site MV Ductbanks  | 316.300304 &<br>316.600    | What is the total cubic yards of concrete used in MV<br>duct banks (ex. underground encasement, Incoming<br>feeder Substation through MVS to PTX)?          | 4160V mCUP PTX to MSG only.   | 87        |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 87        |
| CY of Concrete Site LV Ductbanks  | 316.700                    | banks (ex. underground encasement, Scope after PTX)   |   | 31        |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 31        |
| CY of Concrete Site Telecom - IT Ductbanks Let of Concrete Site Temp Power - Temp Power | 316.400.401<br>316.200.201 | what is the total cubic yards or concrete used in Teleco -IT duct hanks few underground encasement? what is the total cubic yards or concrete used in Tempo | N/A TBD   |           |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 0         |
| LF of Copper Wiring - MV (Above 600V)   | 316.300304 &<br>316.600    | What is the total linear feet of copper wiring? Incoming<br>feeder Substation through MVS to PTX  |   | 6,090     | 1    |      |      | 0      |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 6,090     |
| LF of Copper Wiring - LV (600V-120V)  | 316.700                    | What is the total linear feet of copper wiring? Scope<br>after PTX  | Includes all cable from One-lines and Panel Schedules, &<br>Grounding Drawings                              | 1,903,063 |      |      |      | 94,105 |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              | 1       | 1,997,168 |
| LF of Copper Wiring - LV (119V and Below)   | 316.700                    | Fire Alarm, Lighting Controls, ETC  | Includes Cat5 Cable for Lighting Controls only. MMR has<br>included an allowance for the Fire Alarm System. | 11,600    | 1    |      |      | 2,025  |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 13,625    |
| LF of Copper Wiring - Temp Power  | 316.200.201                | What is the total linear feet of copper wiring?   |   |           |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 0         |
| LF of Conduit (Electrical Power) - MV (Above 600V)                                      | 316.300304 &<br>316.600    | What is the total linear feet of conduit? Incoming feed<br>Substation through MVS to PTX  | er 4160V mCUP PTX to MSG only.  | 1,430     | 1    |      |      | 0      |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 1,430     |
| LF of Conduit (Electrical Power) - LV (600V-120V)                                       | 316.700                    | What is the total linear feet of conduit? Scope after PT.   | X and Panel Schedules including mCUP Scope Conduit Cat's cape for a supported wa unooxs and syraps.         | 413,315   |      |      |      | 13,350 |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 426,665   |
| LF of Conduit (Electrical Power) - LV (119V and Below                                   | ow) 316.700                | Fire Alarm, Lighting Controls, ETC  | MMR has included an allowance for the Fire Alarm  |           |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 0         |
| LF of Conduit (Telecom)   | 316.400.401                | What is the total linear feet of conduit?   | Includes Door & Camera Conduit for Rough-ins  | 9,418     |      |      |      | 20     |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         | 9,438     |
| NECA Productivity Rate  |                            | What is the NECA productivity rate?   |   |           |      |      |      |        |                |          |        |             |            |           |           |      |      |           |  |       |             |       |          |          |          |          |      |      |                |      |       |          |           |        |             |              |         |           |