PROJECT:

# TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 7, RESTROOM REMODEL AT O'LEARY MIDDLE SCHOOL

# 2350 ELIZABETH BLVD TWIN FALLS, ID 83301

CLIENT:

# TWIN FALLS SCHOOL DISTRICT #411

HUMMEL ARCHITECTS

205 N. 10th Street Suite 300 Boise, Idaho 83702 208.343.7523 ABDID ADDID ADDID Boise, Idaho 83702 208.343.7523 ABDID ADDID BOISE, ID 83402 208.343.7523 ABDID ADDID BOISE, ID 83402 208.343.7523

MECHANICAL / ELECTRICAL ENGINEER CATOR RUMA A: #1238, 420 S ORCHARD ST, BOISE, ID 83705 P: 208.343.3663

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VICINITY MAP :

PROJECT LOCATION



DRAWING SET:

ARCHITECTURAL MECHANICAL ELECTRICAL DRAWING INDEX:

GENERAL G 0.00 COVER SHEET (DOOR REPLACEMENT) ARCHITECTURAL A0.10 O'LEARY MIDDLE SCHOOL - BLDG A FLOOR PLAN A0.11 BLDG B, BLDG C FLOOR PLANS AND DOOR SCHEDULE FIRE PROTECTION F0.01 FIRE PROTECTION LEGENDS & NOTES F2.01 LEVEL 1 FIRE PROTECTION PLANS MECHANICAL M0.01 MECHANICAL LEGENDS & NOTES M2.01 LEVEL 1 HVAC PLANS

| PLUMBIN | G                            |
|---------|------------------------------|
| P0.01   | PLUMBING LEGENDS & NOTES     |
| P2.01   | LEVEL 1 DOMESTIC WATER PLANS |
| P2.11   | LEVEL 1 WASTE & VENT PLANS   |
|         |                              |
|         |                              |

ELECTRICAL LEGENDS & NOTESE0.01ELECTRICAL LEGENDS & NOTESE0.02ELECTRICAL SCHEDULESE2.01RESTROOM REMODEL ELECTRICAL PLANSE3.01ELECTRICAL DETAILS

H.A.-JOB # 23010-00



DRAWING SET NO.





SET





![](_page_2_Figure_3.jpeg)

![](_page_2_Figure_4.jpeg)

![](_page_2_Figure_5.jpeg)

![](_page_2_Figure_6.jpeg)

![](_page_3_Figure_0.jpeg)

|      |              |       |       | SCHEDULE - RO       | DOM FINISH - (         | O'LEARY RESTR          | ROOM                   |           |         |        |
|------|--------------|-------|-------|---------------------|------------------------|------------------------|------------------------|-----------|---------|--------|
|      |              | FLC   | OR    |                     | W                      | ALLS                   |                        | CASE      | WORK    |        |
| ROOM |              |       |       |                     |                        |                        |                        |           | COUNTER |        |
| NO.  | ROOM TITLE   | MAT.  | BASE  | NORTH               | EAST                   | SOUTH                  | WEST                   | CABINETRY | TOP     | REMARK |
| 111  | RESTROOM     | PFT-1 | MCB-1 | CWT-1, CWT-4, CWT-5 | CWT-1, CWT-4,<br>CWT-5 | CWT-1, CWT-4,<br>CWT-5 | CWT-1, CWT-4,<br>CWT-5 | -         | -       | 2, 3   |
| 113  | OFFICE       | CPT-2 | RWB-1 | P-1                 | P-1                    | P-5                    | P-1                    | -         | -       | 1      |
| 115  | STAFF LOUNGE | LVT-1 | RWB-1 | P-1                 | P-4                    | P-1                    | P-1                    | PL-3      | PL-4    | 1      |

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| R   | PRV<br>PTRV<br>CV |              | CAP END OF PIPE<br>PITCH DOWN IN DIRECTION OF ARROW<br>PIPE ANCHOR<br>PIPE ALIGNMENT GUIDE<br>UNION OR FLANGE<br>CONCENTRIC PIPE REDUCER<br>ECCENTRIC PIPE REDUCER<br>PRESSURE REDUCING VALVE<br>PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE       |
|---|-------------------|--------------|--|
|   | PRV<br>PTRV<br>CV |              | PITCH DOWN IN DIRECTION OF ARROW         PIPE ANCHOR         PIPE ALIGNMENT GUIDE         UNION OR FLANGE         CONCENTRIC PIPE REDUCER         ECCENTRIC PIPE REDUCER         PRESSURE REDUCING VALVE         PRESSURE AND/OR TEMPERATURE RELIEF VALVE         ISOLATION VALVE (RE: SPEC FOR TYPE)         VERTICAL PIPE VALVE         CHECK VALVE         SOLENOID / MOTORIZED VALVE |
|   | PRV<br>PTRV<br>CV |              | PIPE ANCHOR         PIPE ALIGNMENT GUIDE         UNION OR FLANGE         CONCENTRIC PIPE REDUCER         ECCENTRIC PIPE REDUCER         PRESSURE REDUCING VALVE         PRESSURE AND/OR TEMPERATURE RELIEF VALVE         ISOLATION VALVE (RE: SPEC FOR TYPE)         VERTICAL PIPE VALVE         CHECK VALVE         SOLENOID / MOTORIZED VALVE  |
| ۲O-WALL)  | PRV<br>PTRV<br>CV |              | PIPE ALIGNMENT GUIDE<br>UNION OR FLANGE<br>CONCENTRIC PIPE REDUCER<br>ECCENTRIC PIPE REDUCER<br>PRESSURE REDUCING VALVE<br>PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE   |
| R   | PRV<br>PTRV<br>CV |              | UNION OR FLANGE<br>CONCENTRIC PIPE REDUCER<br>ECCENTRIC PIPE REDUCER<br>PRESSURE REDUCING VALVE<br>PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE   |
| <ul> <li>К -</li> <li>К -</li></ul> | PRV<br>PTRV<br>CV |              | CONCENTRIC PIPE REDUCER<br>ECCENTRIC PIPE REDUCER<br>PRESSURE REDUCING VALVE<br>PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE  |
|   | PRV<br>PTRV<br>CV |              | ECCENTRIC PIPE REDUCER<br>PRESSURE REDUCING VALVE<br>PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE   |
|   | PRV<br>PTRV<br>CV |              | PRESSURE REDUCING VALVE<br>PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE   |
|   | PTRV<br>CV        |              | PRESSURE AND/OR TEMPERATURE RELIEF VALVE<br>ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE<br>SOLENOID / MOTORIZED VALVE  |
|   | CV                |              | ISOLATION VALVE (RE: SPEC FOR TYPE)<br>VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE  |
| 0-WALL)   | CV                |              | VERTICAL PIPE VALVE<br>CHECK VALVE<br>SOLENOID / MOTORIZED VALVE   |
|   | CV                |              | CHECK VALVE<br>SOLENOID / MOTORIZED VALVE  |
|   |                   | →<br>図 4     |  |
| O-WALL)   |                   | ₽            | SOLENOID VALVE   |
| O-WALL)   |                   |              |  |
| -   |                   | —പ്പ         | HOSE END DRAIN VALVE   |
| _   | P/T               | <b>—</b> P/T | PRESSURE / TEMPERATURE TAP   |
| JE 🚺  |                   | <del>_</del> | STRAINER   |
| 1 = FLR)  |                   |              | STRAINER W/ BLOWDOWN   |
|   |                   |              | BRAIDED FLEXIBLE PIPE CONNECTOR  |
|   |                   | -8           | DOUBLE-BOWL FLEXIBLE PIPE CONNECTOR  |
|   |                   |              | THERMOMETER  |
| VED   |                   | Q            | PRESSURE GAUGE   |
|   |                   | O            | SIGHT GLASS  |
|   | C.A.P.            | $\square$    | CEILING ACCESS PANEL   |
|   |                   | $\square$    | PUMP   |
|   | ТВ                |              | THRUST BLOCK   |
|   | MAV               |              | MANUAL AIR VENT  |
|   | AAV               |              | AUTOMATIC AIR VENT   |
|   |                   |              |  |
|   |                   |              |  |
|   |                   |              |  |
|   |                   |              |  |
|   |                   |              |  |

|       |   | (Not all symbols listed below                                 | LEGE   | ND<br>hese drawings) |  |
|-------|---|---|--------|----------------------|--|
| ABBR. | SYMBOL                                  | DESCRIPTION   | ABBR.  | SYMBOL               | DESCRIPTION                              |
|       |   |   |        |                      | CAP END OF PIPE                          |
|       |   |   |        | SLOPE                | PITCH DOWN IN DIRECTION OF ARROW         |
|       |   | - SECTION CUT ON THIS SHEET                                   |        | —×—                  | PIPE ANCHOR                              |
|       |   | - VIEW REFERENCE DESIGNATION                                  |        |                      | PIPE ALIGNMENT GUIDE                     |
|       |   | - VIEW REFERENCE ON THIS SHEET                                |        |                      | UNION OR FLANGE                          |
|       |   | - EQUIPMENT UNIT IDENTIFICATION                               |        |                      | CONCENTRIC PIPE REDUCER                  |
|       | 1-2-3                                   | EQUIPMENT UNIT NUMBER (UNIT SERVED - FLOOR -<br>— SEQUENCE #) |        |                      | ECCENTRIC PIPE REDUCER                   |
|       | 10~                                     | - DIFFUSER IDENTIFICATION                                     | PRV    | _&                   | PRESSURE REDUCING VALVE                  |
| X     | A 250                                   | - DIFFUSER NECK DIAMETER<br>- DIFFUSER CFM                    | PTRV   |                      | PRESSURE AND/OR TEMPERATURE RELIEF VALVE |
|       |   | LINEAR DIFFUSER IDENTIFICATION                                |        | <b>—</b>             | ISOLATION VALVE (RE: SPEC FOR TYPE)      |
|       | 8ø/24"L-                                | - LINEAR DIFFUSER NECK DIAMETER<br>- LINEAR DIFFUSER LENGTH   |        |                      | VERTICAL PIPE VALVE                      |
|       | 9999                                    | - LINEAR DIFFUSER CFM   | CV     | ī                    | CHECK VALVE                              |
|       |   | - FINNED TUBE RADIATOR ACTIVE ELEMENT LENGTH                  |        | &                    | SOLENOID / MOTORIZED VALVE               |
|       | 2'-6" FTR                               |   |        | <b>—</b>             | SOLENOID VALVE                           |
|       |   | - RADIATOR ENCLOSURE LENGTH (OR W-W=WALL-TO-WALL)             |        | —д-н                 | HOSE END DRAIN VALVE                     |
|       | $\langle \rangle$                       | KEY NOTE REFERENCE  | P/T    | <b>T</b> P/T         | PRESSURE / TEMPERATURE TAP               |
|       |   | KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE                     |        |                      | STRAINER                                 |
|       | $\diamond$                              | TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)             |        |                      | STRAINER W/ BLOWDOWN                     |
|       | <b>Š</b>                                | POINT OF CONNECTION, NEW TO EXISTING                          |        |                      | BRAIDED FLEXIBLE PIPE CONNECTOR          |
|       |   | POINT OF DISCONNECTION, DEMO                                  |        |                      | DOUBLE-BOWL FLEXIBLE PIPE CONNECTOR      |
|       |   | DIRECTION OF FLOW IN PIPE                                     |        | μ                    | THERMOMETER                              |
|       | [:::::::::::::::::::::::::::::::::::::: | DUCTWORK, PIPING AND EQUIPMENT TO BE REMOVED                  |        |                      | PRESSURE GAUGE                           |
| (E)   |   | EXISTING  |        | — <u>o</u> —         | SIGHT GLASS                              |
| (N)   |   | NEW   | C.A.P. |                      | CEILING ACCESS PANEL                     |
| (R)   |   | RELOCATED   |        |                      | PUMP                                     |
| (F)   |   | FUTURE  | ТВ     |                      | THRUST BLOCK                             |
| DIA   | Ø                                       | DIAMETER  | MAV    |                      | MANUAL AIR VENT                          |
| WAD   |   | WALL ACCESS DOOR  | AAV    |                      | AUTOMATIC AIR VENT                       |
| NIC   |   | NOT IN CONTRACT   |        |                      |  |
| AFF   |   | ABOVE FINISHED FLOOR  |        |                      |  |
| GC    |   | GENERAL CONTRACTOR  |        |                      |  |
| MC    |   | MECHANICAL CONTRACTOR   |        |                      |  |
| EC    |   | ELECTRICAL CONTRACTOR   |        |                      |  |
| UNO   |   | UNLESS NOTED OTHERWISE  |        |                      |  |
| С     |   | COMMON  |        |                      |  |
| NC    |   | NORMALLY CLOSED   |        |                      |  |
| NO    |   | NORMALLY OPEN   |        |                      |  |

|         | FIRE PROTECTION LEGEND<br>(Not all symbols listed below are used on these drawings) |                                     |       |        |                                   |  |  |  |  |
|---------|---|-------------------------------------|-------|--------|-----------------------------------|--|--|--|--|
| ABBR.   | SYMBOL  | DESCRIPTION                         | ABBR. | SYMBOL | DESCRIPTION                       |  |  |  |  |
| F       | F   | FIRE SERVICE PIPING                 |       |        | NEW SPRINKLER HEAD                |  |  |  |  |
| 0.S.&Y. | <b>—</b>  | O.S.&Y. GATE VALVE W/ TAMPER SWITCH |       | 0      | EXISTING SPRINKLER HEAD           |  |  |  |  |
| FS      |   | FLOW SWITCH                         |       | ●      | RELOCATED SPRINKLER HEAD          |  |  |  |  |
| PIV     | <u> </u>  | POST INDICATOR VALVE                |       |        | SIDEWALL SPRINKLER HEAD           |  |  |  |  |
| FDC     | $\prec$   | FIRE DEPARTMENT CONNECTION          |       | D24    | DRY SPRINKLER HEAD (SHAFT LENGTH) |  |  |  |  |
|         |   |                                     | FHC   |        | FIRE HOSE CABINET                 |  |  |  |  |
|         |   |                                     | FVC   |        | FIRE VALVE CABINET                |  |  |  |  |
|         |   |                                     | A/S   |        | AUTOMATIC FIRE SPRINKLER          |  |  |  |  |

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| J |  |  |  |  |

# FIRE PROTECTION NOTES:

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- 1. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE INSTALLATION OF A COMPLETE AND PROPERLY FUNCTIONING FIRE PROTECTION SYSTEM.
- 2. THE FIRE PROTECTION WORK INVOLVES ENGINEERING AND DESIGN BY THE CONTRACTOR TO DETERMINE THE EXTENT OF NEW WORK AND THE MODIFICATION AND EXTENSION OF EXISTING SYSTEMS TO PROVIDE FULL COVERAGE TO THE PROJECT AREA SHOWN ON THESE AND THE ARCHITECTURAL PLANS.
- 3. THE INFORMATION PRESENTED ON THESE DRAWINGS IS DIAGRAMMATIC. IT DOES NOT NECESSARILY REPRESENT ALL ELBOWS, OFFSETS, HANGERS, ETC., REQUIRED FOR A COMPLETE WORKING SYSTEM.
- ALL FIRE PROTECTION SYSTEMS INSTALLED SHALL BE IN ACCORDANCE WITH NFPA-13, 14, 20, ETC. AND LOCAL BUILDING CODES AND ORDINANCES.
- 5. FIRE PROTECTION CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL NEW FIRE PROTECTION EQUIPMENT AND PIPING WITH ALL OTHER TRADES PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND SYSTEM INSTALLATION, SO AS NOT TO INTERFERE WITH THE ROUTING OF NEW DUCTWORK, PLUMBING PIPING, ETC.
- 6. PROVIDE ALL FITTINGS, RISER NIPPLES, ARM-OVERS, HANGERS, ETC. TO MAINTAIN CONFORMANCE WITH APPLICABLE STANDARDS AND TO POSITION THE SPRINKLERS IN THE PROPER LOCATIONS.
- SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS WITH FIRE STOPPING MATERIALS AS REQUIRED.
- 8. FOR REMODEL AREAS NEW SPRINKLERS SHALL MATCH EXISTING SPRINKLERS. 9. PROVIDE WORKING DRAWINGS AND HYDRAULICALLY CALCULATE THIS FIRE SPRINKLER SYSTEM PER NFPA-13 WHERE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- 10. PROVIDE FIELD COORDINATION OF PIPING AND SPRINKLER INSTALLATIONS WITH DUCTWORK, LIGHTS, SMOKE DETECTORS, DIFFUSERS, ETC.

100% CC

| 420 South Orcha<br>(208) 343-366  | TOR R<br>S S O C I A T E<br>ard Street, Boise<br>S3 • www.catorru | <b>UMA</b><br>S, CO.<br>, ID 83705<br>uma.com |
|---|---|---|
| 205 N. 10th Street<br>Suite 300<br>Boise, Idaho 83702<br>208.343.7523   | Constitution Way,<br>e 111<br>to Falls, ID 83402<br>.343.7523     | EL  |
| roject:<br>FSD 2023 CAPI<br>ACKAGE 7, RES<br>VLEARY MIDDLE<br>NIN FALLS, ID 83301<br>heet:<br>FIRE PROTE<br>NOTES | TAL IMPROVE<br>STROOM REN<br>E SCHOOL                             | EMENTS<br>JODEL AT                            |
| SUST SUDAL ENGLAND  |   |   |
|   | Project No:<br>Drawn By:<br>Checked By:<br>Date:<br>Sheet No:     | 23010-00<br>BS<br>LJ<br>12/22/2023            |

![](_page_5_Figure_0.jpeg)

![](_page_5_Figure_3.jpeg)

| e | 6  |   |
|---|----|---|
|   |    | KEYNOTES  |
|   | F1 | MODIFY THE EXISTING FIRE SPRINKLER LAYOUT PER NFPA 13 TO<br>ACCOMMODATE THE REMODELED AREAS. REFER TO ARCHITECTURAL<br>PLANS FOR ADDITIONAL INFORMATION. REPLACE EXISTING SPRINKLER<br>HEADS WITH QUICK RESPONSE HEADS AS NEEDED. COORDINATE NEW<br>HEAD LOCATIONS WITH OTHER TRADES. |

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![](_page_5_Picture_6.jpeg)

| <b>CA</b><br>& A S<br>420 South Orcha<br>(208) 343-366   | <b>FOR F</b><br>S O C I A T<br>rd Street, Bois<br>3 • www.cator | <b>RUMA</b><br>E S , C O .<br>e, ID 83705<br>ruma.com |
|--|---|---|
| LHUN<br>205 N. 10th Street 482 0   |   | EL<br>HITECTS<br>hummelarch.com                       |
| P r o j e c t :<br>FSD 2023 CAPI<br>PACKAGE 7, RES<br>D'LEARY MIDDLE   | TAL IMPROV<br>TROOM RE<br>SCHOOL                                | 'EMENTS<br>MODEL AT                                   |
| heet:<br>EVEL 1 FIRE<br>PLANS  | EPROTE  | CTION   |
| 20608<br>12/20/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2023<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>11/2024<br>1/ |   |   |
|  | Project No:<br>Drawn By:<br>Checked By:<br>Date:<br>Sheet No:   | 23010-00<br>BS<br>LJ<br>12/22/2023                    |
|  |   |   |

| GENERAL LEGEND<br>(Not all symbols listed below are used on these drawings) |  |   |          |  | HVAC LEGEND<br>(Not all symbols listed below are used on these drawings) |       |                       |   |          |                     |  |
|---|--|---|----------|--|--|-------|-----------------------|---|----------|---------------------|--|
| ABBR.   | SYMBOL   | DESCRIPTION   | ABBR.    | SYMBOL                                 | DESCRIPTION  | ABBR. | SYMBOL                | DESCRIPTION                                     | ABBR.    | SYMBOL              | DESCRIPTION                            |
|   |  |   |          |  | CAP END OF PIPE  | HWS   | HWS                   | HEATING WATER SUPPLY PIPING                     |          | $\mathbf{X}$        | SUPPLY DUCT UP / DOWN                  |
|   |  | - SECTION DESIGNATION   |          |  | PITCH DOWN IN DIRECTION OF ARROW   | HWR   | — -HWR- —             | HEATING WATER RETURN PIPING                     |          |                     | RETURN DUCT UP / DOWN                  |
|   |  |   |          | —×—                                    | PIPE ANCHOR  | HTWS  | —HTWS—                | HIGH TEMPERATURE HEATING WATER SUPPLY PIPING    |          |                     | EXHAUST DUCT UP / DOWN                 |
|   |  | - VIEW REFERENCE DESIGNATION                                  |          |  | PIPE ALIGNMENT GUIDE   | HTWR  | — HTWR· —             | HIGH TEMPERATURE HEATING WATER RETURN PIPING    |          | ØI IØ               | ROUND DUCT UP / ROUND DUCT DOWN        |
|   | X-X -  | - VIEW REFERENCE ON THIS SHEET                                |          |  | UNION OR FLANGE  | CHWS  | CHWS                  | CHILLED WATER SUPPLY PIPING                     | 48F12    |                     | FLAT OVAL DUCTWORK                     |
|   | X  | - EQUIPMENT UNIT IDENTIFICATION                               |          |  | CONCENTRIC PIPE REDUCER  | CHWR  | — CHWR <sup>.</sup> — | CHILLED WATER RETURN PIPING                     |          |                     | FLEXIBLE DUCT CONNECTION               |
|   | 1-2-3  | EQUIPMENT UNIT NUMBER (UNIT SERVED - FLOOR -<br>— SEQUENCE #) |          |  | ECCENTRIC PIPE REDUCER   | D     | D                     | COOLING COIL DRAIN PAN PIPING                   | BDD      |                     | BACKDRAFT DAMPER                       |
|   | 10   |   | PRV      |  | PRESSURE REDUCING VALVE  | CWS   |                       | CONDENSER WATER SUPPLY PIPING                   | TCD      |                     | TEMP. CONTROL DAMPER-OPPOSED BLADE     |
| <u>ک</u>  | A 250  | — DIFFUSER NECK DIAMETER<br>— DIFFUSER CFM                    | PTRV     |  | PRESSURE AND/OR TEMPERATURE RELIEF VALVE                                 | CWR   | — -CWR- —             | CONDENSER WATER RETURN PIPING                   | TCD      | <u>\\\\</u>         | TEMP. CONTROL DAMPER- PARALLEL BLADE   |
|   |  | - LINEAR DIFFUSER IDENTIFICATION                              |          |  | ISOLATION VALVE (RE: SPEC FOR TYPE)                                      | GHWS  | —GHWS—                | GLYCOL HEATING WATER SUPPLY PIPING              | MVD      |                     | MANUAL VOLUME DAMPER                   |
|   | 8ø/24"L-   | - LINEAR DIFFUSER NECK DIAMETER<br>- LINEAR DIFFUSER LENGTH   |          | A                                      | VERTICAL PIPE VALVE  | GHWR  | — GHWR <sup>.</sup> — | GLYCOL HEATING WATER RETURN PIPING              | MD       |                     | DUCT MOTORIZED DAMPER                  |
|   | 9999   | - LINEAR DIFFUSER CFM   | CV       | ī                                      | CHECK VALVE  | PCWS  | PCWS                  | PROCESS CHILLED WATER SUPPLY PIPING             |          |                     | CONICAL FITTING WITH MVD               |
|   |  | FINNED TUBE RADIATOR ACTIVE ELEMENT LENGTH                    |          | —————————————————————————————————————— | SOLENOID / MOTORIZED VALVE   | PCWR  |                       | PROCESS CHILLED WATER RETURN PIPING             |          |                     | SPIN-IN FITTING WITH MVD               |
|   | 2'-6" FTR  |   |          | ₩                                      | SOLENOID VALVE   | LPS   | LPS                   | LOW PRESSURE STEAM SUPPLY PIPING (0 - 15#)      | FD       |                     | DUCT FIRE DAMPER                       |
|   | 3-0 28   | - RADIATOR ENCLOSURE LENGTH (OR W-W=WALL-TO-WALL)             |          | дн                                     | HOSE END DRAIN VALVE   | LPC   | — -LPC- —             | LOW PRESSURE CONDENSATE RETURN PIPING           | FSD      | le le               | COMBINATION DUCT FIRE/SMOKE DAMPER     |
|   | $\langle \!$ | KEY NOTE REFERENCE  | P/T      | <u> </u>                               | PRESSURE / TEMPERATURE TAP   | MPS   | MPS                   | MEDIUM PRESSURE STEAM SUPPLY PIPING (16# - 60#) | SD       |                     | DUCT SMOKE DAMPER                      |
|   |  | KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE                     |          |  | STRAINER   | MPC   | — -MPC- —             | MEDIUM PRESSURE CONDENSATE RETURN PIPING        |          | <b>F</b>            | DUCT SMOKE DETECTOR                    |
|   | $\bigcirc$   | TYPICAL ROOM REFERENCE (TOP = RM #. BOTTOM = FLR)             |          |  | STRAINER W/ BLOWDOWN   | HPS   | HPS-                  | HIGH PRESSURE STEAM SUPPLY PIPING (61# - 125#)  | DAD      |                     | DUCT ACCESS DOOR                       |
|   | $\square$  | POINT OF CONNECTION, NEW TO EXISTING                          |          |  | BRAIDED FLEXIBLE PIPE CONNECTOR  | HPC   | HPC                   | HIGH PRESSURE CONDENSATE RETURN PIPING          |          |                     |  |
|   |  | POINT OF DISCONNECTION, DEMO                                  |          |  | DOUBLE-BOWL FLEXIBLE PIPE CONNECTOR                                      | PC    | PC                    | PUMPED CONDENSATE PIPING                        | -        |                     | TURNING VANES IN DUCT ELBOW            |
|   |  | DIRECTION OF FLOW IN PIPE                                     |          | Φ                                      | THERMOMETER  | BBD   | BBD                   | BOILER BLOWDOWN PIPING                          | EP       | <br>₽               | ELECTRIC-PNEUMATIC CONTROL VALVE       |
|   | []   | DUCTWORK, PIPING AND EQUIPMENT TO BE REMOVED                  |          | <u> </u>                               | PRESSURE GAUGE   | BF    | BF                    | BOILER FEED WATER PIPING                        | PE       | ,<br>¢≈             | PNEUMATIC-ELECTRIC CONTROL SWITCH      |
| (E)   |  | EXISTING  |          |  | SIGHT GLASS  | RL    |                       | REFRIGERANT LIQUID PIPING                       |          | (S) (ES)            | WALL SWITCH / EMERGENCY SWITCH         |
| (N)   |  | NEW   | C.A.P.   | M                                      | CEILING ACCESS PANEL   | RS    | — –RS— —              | REFRIGERANT SUCTION PIPING                      |          | (TS)                | TEMPERATURE SENSOR                     |
| R)  |  | RELOCATED   |          |  | PUMP   | RHG   |                       | REFRIGERANT HOT GAS PIPING                      |          | (T)                 | WALL MOUNTED THERMOSTAT                |
| (F)   |  | FUTURE  | ТВ       |  | THRUST BLOCK   | ТТ    | ⊗π                    | THERMOSTATIC STEAM TRAP                         |          | (02)                | WALL MOUNTED CARBON DIOXIDE SENSOR     |
| DIA   | Ø  | DIAMETER  | MAV      | <b>∨</b>                               | MANUAL AIR VENT  | F&T   | ⊗∎ <sub>F&amp;T</sub> | FLOAT AND THERMOSTATIC STEAM TRAP               |          | 0                   | WALL MOUNTED OXYGEN SENSOR             |
| VAD   |  | WALL ACCESS DOOR  | AAV      |  | AUTOMATIC AIR VENT   | IBT   | ⊡ <sub>IBT</sub>      | INVERTED BUCKET STEAM TRAP                      |          | (H)                 | HUMIDISTAT                             |
| NIC   |  | NOT IN CONTRACT   |          |  |  | TCV   |                       | (2 OR 3-WAY) TEMPERATURE CONTROL VALVE          |          | $\overline{\nabla}$ | UNIT MOUNTED THERMOSTAT                |
| \FF   |  | ABOVE FINISHED FLOOR  |          |  |  |       | _≍_                   | VENTURI METER                                   |          | (P) (PM)            | PRESSURE SENSOR / PRESSURE MONITOR     |
| GC  |  | GENERAL CONTRACTOR  |          |  |  | BV    | <b>—</b>              | CALIBRATED BALANCING VALVE                      |          |                     | UNDERCUT DOOR                          |
| MC  |  | MECHANICAL CONTRACTOR   | 1        |  |  | AFV   |                       | AUTO FLOW VALVE                                 |          |                     | LOUVER IN DOOR                         |
| EC  |  | ELECTRICAL CONTRACTOR   |          |  |  | RSV   |                       | REFRIGERANT SERVICE VALVE                       |          | RISE                | DUCT RISE                              |
| JNO   |  | UNLESS NOTED OTHERWISE  | 1        |  |  | DPS   |                       | DIFFERENTIAL PRESSURE SWITCH                    |          | DROP                | DUCT DROP                              |
| С   |  | СОММОЛ  |          |  |  | FS    |                       | FLOW SWITCH                                     | A.L.     |                     | ACOUSTICALLY LINED DUCTWORK            |
| NC  |  | NORMALLY CLOSED   | 1        |  |  | EJ    |                       | EXPANSION JOINT                                 | TCOAD    |                     | TEMPERATURE CONTROL OUTSIDE AIR DAMPER |
| NO  |  | NORMALLY OPEN   |          |  |  | BJ    |                       | BALL JOINT EXPANSION COMPENSATOR                | TCRAD    |                     | TEMPERATURE CONTROL RETURN AIR DAMPER  |
|   | I  |   | 1        | 1                                      |  | SA    |                       | SUPPLY AIR                                      | TCEAD    |                     | TEMPERATURE CONTROL EXHAUST AIR DAMPER |
|   |  |   |          |  |  | RA    |                       | RETURN AIR                                      | SP IN WC |                     | STATIC PRESSURE IN INCHES WATER COLUMN |
|   |  |   |          |  |  | EA    |                       | EXHAUST AIR                                     | EOMD     |                     | END OF MAIN DRIP                       |
|   |  |   | SINGLE I |  | JBLE LINE   SINGLE LINE   DOUBLE LINF                                    | OA    |                       | OUTSIDE AIR                                     | SCCR     |                     | SHORT CIRCUIT CURRENT RATING           |
|   |  |   |          |  |  |       |                       |   | SD       |                     | SUPPLY AIR DEVICE                      |
|   | L  |   |          |  |  |       |                       |   | RG       |                     | RETURN AIR DEVICE                      |
|   | 15° TEE (DOLIN   |   |          |  |  |       |                       |   | RG       |                     | RETURN AIR DEVICE WITH SOUND BOOT      |
|   |  |   |          |  |  |       |                       |   | EG       |                     | EXHAUST AIR DEVICE                     |

|             | <b>DOUBLE/SINGLE LINE DUCT LEGEND</b><br>(Not all symbols listed below are used on these drawings) |             |             |              |             |             |         |
|-------------|--|-------------|-------------|--------------|-------------|-------------|---------|
| SINGLE LINE | DOUBLE LINE  | SINGLE LINE | DOUBLE LINE | SINGLE LINE  | DOUBLE LINE | SINGLE LINE | DOI     |
|             |  | SEE DE      |             | RIGID 7 FLEX |             |             |         |
| 45° TEE     | (ROUND)  | 90° TEE (RE | CTANGULAR)  | FLEX         | DUCT        | 90° RADIL   | US ELBO |
|             |  | CC          |             | ф            |             |             |         |
| 45° TEE (RE | CTANGULAR)   | 90° TEE     | (ROUND)     | MANUAL VOL   | UME DAMPER  | 90° E       | LBOW    |
|             | SPLIT  |             |             | 20 8         |             | 45° E       | I BOW   |
|             | 0. 21  | 010         |             |              |             | 40 E        | 20011   |

|                | COMcheck Software<br>Mechanical Co |
|----------------|------------------------------------|
| Project Inform | nation                             |

| Energy Code:       | 2018 IECC     |
|--------------------|---------------|
| Project Title:     | TFSD Capit    |
| Location:          | Twin Falls, I |
| Climate Zone:      | 5b            |
| Project Type:      | Alteration    |
| Construction Site: | Owner/Ag      |
| Twin Falls, ID     | Twin Fa       |

5b Alteration Owner/Agent:

Twin Falls School District Twin Falls, ID 83301

Mechanical Systems List Quantity System Type & Description

Mechanical Compliance Statement requirements listed in the Inspection Checklist. Lilly Johnson, P.E Name - Title

NOTE:

No new heating, cooling, nor water heating equipment is being installed as part of this project. The work consists of modifying existing ductwork and piping.

|                |              |              | OUTS                    |                               | AIR V                      | /ENT                                   | ILAT                                      | ION (                            | CALC            | ULATI                                  | ONS                        | (OA)                                  |                               |                     |
|----------------|--------------|--------------|-------------------------|-------------------------------|----------------------------|--|---|----------------------------------|-----------------|--|----------------------------|---------------------------------------|-------------------------------|---------------------|
| AIR            | SYSTEM TAG   | ROOM OCCUPAN | CY CLASSIFICATON        | Code Basis: IMC 2018          |                            |  | ZONE VENTILATION<br>EFFECTIVENESS (Ez ) = |                                  | 0.8             | SYSTEM<br>DIV                          | OCCUPANT<br>ERSITY (D) =   | 100%                                  |                               | )E AIR<br>/IARY     |
| ROOM<br>NUMBER | ROOM NAME    | PRIMARY      | SECONDARY               | ZONE AREA<br>(SF)             | ZONE<br>PRIMARY<br>AIR CFM | PEOPLE<br>OUTSIDE<br>AIR RATE<br>(CFM) | AREA<br>OUTSIDE<br>AIR RATE<br>(CFM/SF)   | OCCUPANT<br>DENSITY<br>#/1000 SF | TOTAL<br>PEOPLE | BREATHING<br>ZONE OUTSIDE<br>AIR CFM   | ZONE<br>OUTSIDE<br>AIR CFM | PRIMARY<br>OUTSIDE<br>AIR<br>FRACTION | PEOPLE<br>OUTSIDE<br>AIR CFM  | RO<br>OUTS<br>AIR ( |
|                |              |              |                         | (Az)                          | (Vpz)                      | (Rp)                                   | (Ra)                                      |                                  | (Pz)            | (Vbz)                                  | (Voz)                      | (Zp)                                  | l                             |                     |
| 113            | Office       | Office       | Office Space            | 114                           | 100                        | 5.0                                    | 0.06                                      | 5                                | 1               | 10                                     | 12                         | 0.121                                 | 3                             | 7                   |
| 115            | Staff Lounge | Office       | Breakroom               | 423                           | 300                        | 5.0                                    | 0.12                                      | 50                               | 21              | 157                                    | 196                        | 0.652                                 | 106                           | 51                  |
| Project:       | Oleary       | -            | Total Sup               | ply Air CFM =                 | 400                        |  |   |                                  | Uncorr          | ected Outside Air<br>take, CFM (Vou) = | 166                        | <<<< <oa<br>Sum</oa<br>               | 109                           | 58                  |
| Location:      | Twin Falls   |              | Critical Zon<br>Fractio | e Outside Air<br>n (MAX Zp) = | 0.652                      | Syster<br>Effi                         | n Ventilation<br>ciency (Ev) =            | 0.763                            | Corrected       | Outside Air Intake<br>Air, CFM (Vot) = | 218                        | Corrected Ou<br>% of                  | utside Air as<br>Supply Air = | 54.4                |

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# e Version 4.1.5.5 mpliance Certificate

![](_page_6_Figure_15.jpeg)

### AIR DEVICE SCHEDULE **REMARKS**: 1. REFER TO ARCHITECTURAL CEILING PLANS DESIG. FUNCTION CEILING SUPPLY CEILING EXHAUST ALUMINUM EGGCRATE

![](_page_6_Figure_17.jpeg)

TITUS 50F

# UNLESS NOTED OTHERWISE ALL SCHEDULED DATA IS LISTED AT ELEVATION - 3700 FT

# HVAC PLAN NOTES:

-5

- 1. ALL SUPPLY AIR DIFFUSERS ARE 4-WAY AIR PATTERN UNLESS SHOWN OTHERWISE.
- 2. DUCT SIZE OF BRANCH DUCT TO AIR DEVICE SHALL BE THE SAME SIZE AS NECK SIZE OF AIR DEVICE UNLESS NOTED OTHERWISE.
- 3. UNLESS OTHERWISE NOTED, ALL SUPPLY AIR DUCTWORK SHALL BE EXTERNALLY WRAPPED TO THICKNESS AS STATED IN SPECIFICATIONS AND RETURN AND EXHAUST DUCTWORK IS NEITHER LINED NOR WRAPPED.
- 4. DUCT SIZES INDICATED ARE SHEET METAL SIZES. WHERE INTERNAL DUCT LINING IS PROVIDED, SHEET METAL SHALL NOT BE INCREASED IN SIZE.

# GENERAL NOTES:

6

- 1. WORK INCLUDED IN THE CONTRACT IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
- 2. A DETAILED METHOD OF PROCEDURE IS REQUIRED WHEN A CONSTRUCTION ACTIVITY AFFECTS THE SAFETY OF THE OCCUPANTS, OWNER'S EQUIPMENT OR VALUABLE CONTENTS OR ANY SYSTEM WHICH SUPPORTS THESE SYSTEMS; OR ESSENTIALLY AFFECTS THE BUILDING MANAGEMENT, OPERATIONS OR SECURITY.
- 3. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK AND SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY DISCREPANCIES FOR RESOLUTION.
- 4. COORDINATE WORK WITH ALL TRADES.
- 5. COORDINATE ALL DUCTWORK AND PIPING WITH EQUIPMENT, STRUCTURE, ETC.
- 6. CONTRACTOR SHALL NOT SHUT DOWN / TAKE OUT OF SERVICE ANY SYSTEMS WITHOUT FIRST COORDINATING WITH OWNER AND PREPARING M.O.P.

# **DEMOLITION GENERAL NOTES:**

- 1. EXISTING ITEMS TO REMAIN ARE DENOTED LIGHTLY UNLESS OTHERWISE NOTED. ALL ITEMS SHOWN DASHED & BOLD SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- 2. CONTRACTOR SHALL NOT SHUT-OFF OR PUT-OUT OF SERVICE ANY SYSTEMS OR SERVICE WITHOUT FIRST COORDINATING WITH THE OWNER. 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND
- UNDERSTAND THE EXTENT OF THE REMODEL WORK REQUIRED PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR WORK REQUIRED TO ACHIEVE THE END RESULT AS INDICATED BY THE CONTRACT DOCUMENT.
- 4. CONTRACTOR SHALL DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENT. 5. PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, VERIFY EXISTING
- CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION. 6. ALL ITEMS IDENTIFIED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY
- UNLESS OTHERWISE NOTED. REMOVED ITEMS SHALL BE TURNED OVER TO THE OWNER UNLESS OTHERWISE NOTED AND STORED IN THE AREA DESIGNATED BY THE OWNER. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL ITEMS THE OWNER CHOOSES NOT TO ACCEPT.
- 7. WHERE EXISTING PIPING, T.C. TUBING/WIRING ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, THE WALLS SHALL BE REPAIRED TO MATCH ORIGINAL CONDITIONS.
- 8. WHERE EXISTING PIPING TO BE REMOVED PASSES THROUGH FLOORS, THEY SHALL BE CUT BACK TO WITHIN CONCRETE AND FILLED WITH GROUT TO ACHIEVE A SMOOTH AND EVEN FINISH WITH CONCRETE SURFACE.

1

![](_page_6_Figure_40.jpeg)

SURFACE 12x12 STEEL/ALUMINUM WHITE

![](_page_6_Picture_42.jpeg)

![](_page_7_Figure_0.jpeg)

![](_page_7_Figure_1.jpeg)

4

| 6   |  |
|-----|--|
|     | KEYNOTES   |
| M1  | REMOVE EXISTING CEILING EXHAUST GRILLE. PROVIDE NEW FOR NEW RESTROOM.                          |
| M2  | REMOVE EXISTING CEILING RETURN GRILLE. MAINTAIN FOR RELOCATION.                                |
| M3  | REMOVE EXISTING CEILING SUPPLY GRILLE. MAINTAIN FOR RELOCATION.                                |
| M4  | REMOVE EXISTING DUCT.  |
| M5  | CAP DUCT. SEAL AIR TIGHT.  |
| M6  | CONNECT TO EXISTING DUCT. MODIFY EXISTING DUCTWORK AS REQUIRED TO MAKE A PROPER CONNECTION.    |
| M7  | CLEAN AND INSTALL EXISTING CEILING EXHAUST GRILLE. PROVIDE TRANSITION TO GRILLE'S NECK SIZE.   |
| M8  | CLEAN AND INSTALL EXISTING CEILING RETURN GRILLE. PROVIDE TRANSITION TO GRILLE'S NECK SIZE.    |
| M9  | CLEAN AND INSTALL EXISTING CEILING SUPPLY GRILLE. PROVIDE<br>TRANSITION TO GRILLE'S NECK SIZE. |
| M10 | BALANCE RELOCATED GRILLE TO CFM SHOWN.   |
| M11 | REMOVE EXISTING CEILING SUPPLY GRILLE AND REPLACE WITH NEW.                                    |

![](_page_7_Picture_4.jpeg)

DOCUMENTS

100% CONSTRUCTION

![](_page_7_Picture_6.jpeg)

# HUMMEL ARCHITECTS 205 N. 10th Street 482 Constitution Way, Suite 300 Suite 111 Boise, Idaho 83702 Idaho Falls, ID 83402 208.343.7523 208.343.7523 hummelarch.com Project: TFSD 2023 CAPITAL IMPROVEMENTS

![](_page_7_Picture_8.jpeg)

![](_page_8_Figure_0.jpeg)

| <br> |  |
|------|--|
| 3    |  |

| (Not all symbols listed below                               | LEGE   | ND<br>hese drawings) |  |
|---|--------|----------------------|--|
| DESCRIPTION   | ABBR.  | SYMBOL               | DESCRIPTION                              |
|   |        |                      | CAP END OF PIPE                          |
|   |        |                      | PITCH DOWN IN DIRECTION OF ARROW         |
|   |        | — <del>×</del> —     | PIPE ANCHOR                              |
| VIEW REFERENCE DESIGNATION                                  |        |                      | PIPE ALIGNMENT GUIDE                     |
| VIEW REFERENCE ON THIS SHEET                                |        | <del>   </del>       | UNION OR FLANGE                          |
| EQUIPMENT UNIT IDENTIFICATION                               |        | <b></b>              | CONCENTRIC PIPE REDUCER                  |
| EQUIPMENT UNIT NUMBER (UNIT SERVED - FLOOR -<br>SEQUENCE #) |        |                      | ECCENTRIC PIPE REDUCER                   |
|   | PRV    | _&                   | PRESSURE REDUCING VALVE                  |
| DIFFUSER NECK DIAMETER<br>DIFFUSER CFM                      | PTRV   |                      | PRESSURE AND/OR TEMPERATURE RELIEF VALVE |
| LINEAR DIFFUSER IDENTIFICATION                              |        | <b>—</b>             | ISOLATION VALVE (RE: SPEC FOR TYPE)      |
| LINEAR DIFFUSER NECK DIAMETER<br>LINEAR DIFFUSER LENGTH     |        | A                    | VERTICAL PIPE VALVE                      |
| LINEAR DIFFUSER CFM   | CV     | — <del>1</del> 7—    | CHECK VALVE                              |
| FINNED TUBE RADIATOR ACTIVE ELEMENT LENGTH                  |        |                      | SOLENOID / MOTORIZED VALVE               |
|   |        | <b>—₩</b> —          | SOLENOID VALVE                           |
| RADIATOR ENCLOSURE LENGTH (OR W-W=WALL-TO-WALL)             |        | —-дн                 | HOSE END DRAIN VALVE                     |
| KEY NOTE REFERENCE  | P/T    | <b>T</b> P/T         | PRESSURE / TEMPERATURE TAP               |
| KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE                   |        |                      | STRAINER                                 |
| TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)           | -      |                      | STRAINER W/ BLOWDOWN                     |
| POINT OF CONNECTION, NEW TO EXISTING                        |        |                      | BRAIDED FLEXIBLE PIPE CONNECTOR          |
| POINT OF DISCONNECTION, DEMO                                |        |                      | DOUBLE-BOWL FLEXIBLE PIPE CONNECTOR      |
| DIRECTION OF FLOW IN PIPE                                   |        | φ                    | THERMOMETER                              |
| DUCTWORK, PIPING AND EQUIPMENT TO BE REMOVED                |        |                      | PRESSURE GAUGE                           |
| EXISTING  |        | <u> </u>             | SIGHT GLASS                              |
| NEW   | C.A.P. |                      | CEILING ACCESS PANEL                     |
| RELOCATED   |        |                      | PUMP                                     |
| FUTURE  | ТВ     |                      | THRUST BLOCK                             |
| DIAMETER  | MAV    | <b>`</b>             | MANUAL AIR VENT                          |
| WALL ACCESS DOOR  | AAV    |                      | AUTOMATIC AIR VENT                       |
| NOT IN CONTRACT   |        |                      |  |
| ABOVE FINISHED FLOOR  |        |                      |  |
| GENERAL CONTRACTOR  |        |                      |  |
| MECHANICAL CONTRACTOR                                       |        |                      |  |
| ELECTRICAL CONTRACTOR                                       |        |                      |  |
| UNLESS NOTED OTHERWISE                                      |        |                      |  |
| COMMON  |        |                      |  |
| NORMALLY CLOSED   |        |                      |  |
| NORMALLY OPEN   |        |                      |  |

|           |  | (Not all symbols listed below               | G LEGE  | END<br>these drawings | )                                  |
|-----------|--|---|---------|-----------------------|------------------------------------|
| ABBR.     | SYMBOL                                 | DESCRIPTION                                 | ABBR.   | SYMBOL                | DESCRIPTION                        |
| CW        | CW                                     | DOMESTIC COLD WATER PIPING                  | GCO/SCO | $\square$             | GRADE CLEANOUT / SURFACE CLEANOUT  |
| HW        | —— – – —HW—                            | DOMESTIC HOT WATER PIPING                   | FCO     | $\odot$               | FLOOR CLEANOUT                     |
| HWC       | —————————————————————————————————————— | DOMESTIC HOT WATER CIRC PIPING              | wco     | Э                     | WALL CLEANOUT                      |
| CW-S      | CW-S_                                  | SOFTENED DOMESTIC COLD WATER PIPING         | СО      | _ك_                   | LINE CLEANOUT                      |
| HW-S      | —— – – —HW-S–                          | SOFTENED DOMESTIC HOT WATER PIPING          | AD      | 0                     | AREA DRAIN                         |
| 140°F HW  | <b>—— – – –</b> 140°F HW               | DOMESTIC HOT WATER PIPING @ TEMP SHOWN      | FD      | $\oslash$             | FLOOR DRAIN                        |
| 140°F HWC | <b>— – – – –</b> 140°F HWC             | DOMESTIC HOT WATER CIRC PIPING @ TEMP SHOWN | FS      |                       | FLOOR SINK                         |
| TW        | —————————————————————————————————————— | TEPID WATER PIPING                          | RD / OD | 0                     | ROOF DRAIN OR OVERFLOW DRAIN       |
| TWC       |  | TEPID WATER CIRC PIPING                     |         |                       |                                    |
| ICW       |  | INDUSTRIAL COLD WATER PIPING                | VB      |                       | ATMOSPHERIC VACUUM BREAKER         |
| IHW       | —— – – —IHW—                           | INDUSTRIAL HOT WATER PIPING                 | BFP     | ¥ <u>77</u> ¥         | BACKFLOW PREVENTER                 |
| IHWC      |  | INDUSTRIAL HOT WATER CIRC PIPING            | SA      | <u>ل</u>              | SHOCK ARRESTOR W / ISOLATION VALVE |
| NPCW      |  | NON-POTABLE COLD WATER PIPING               | GC      |                       | GAS SHUT-OFF VALVE                 |
| NPHW      | NPHW_                                  | NON-POTABLE HOT WATER PIPING                |         |                       | STOP AND DRAIN VALVE               |
| NPHR      |  | NON-POTABLE HOT WATER CIRC PIPING           | BV      | ¥                     | BALANCING VALVE                    |
| V         | V·                                     | VENT PIPING                                 | WН      | +                     | WALL HYDRANT                       |
| AV        | AV                                     | ACID RESISTANT VENT PIPING                  | HB      | +                     | HOSE BIBB                          |
| W         | W                                      | WASTE PIPING                                | RH      | ⊡+                    | ROOF HYDRANT                       |
| W         | — —w— —                                | WASTE PIPING BELOW FLOOR                    | YH      |                       | YARD HYDRANT                       |
| AW        | AW                                     | ACID RESISTANT WASTE PIPING                 | DSN     | - <del>6</del>        | DOWNSPOUT NOZZLE                   |
| AW        | — –AW– —                               | ACID RESISTANT WASTE PIPING BELOW FLOOR     | МН      |                       | MANHOLE                            |
| GW        | GW                                     | GREASE WASTE (TO GREASE INTERCEPTOR)        | CI      |                       | CAST IRON                          |
| GW        | — -GW- —                               | GREASE WASTE PIPING BELOW FLOOR             | СВ      |                       | CATCH BASIN                        |
| SD        | SD                                     | STORM DRAIN PIPING                          | VTR     |                       | VENT THRU ROOF                     |
| SD        | — — sd— —                              | STORM DRAIN PIPING BELOW FLOOR              | IE      |                       | INVERT ELEVATION                   |
| OD        | OD                                     | OVERFLOW DRAIN PIPING                       | PVC     |                       | POLYVINYL CHLORIDE                 |
| OD        | <u> </u>                               | OVERFLOW DRAIN PIPING BELOW FLOOR           |         |                       |                                    |
| CA        | CA                                     | COMPRESSED AIR                              |         |                       |                                    |
| G         | G                                      | NATURAL GAS PIPING                          |         |                       |                                    |
|           |  |   |         |                       |                                    |

1. REFER TO GENERAL SPECIFICATIONS FOR WATER CLOSETS, URINALS, LAVATORIES, SINKS AND MISCELLANEOUS FIXTURE REQUIREMENTS.

| FIXTURE   | TRIM         |         | ELECTRICAL     |              | CONNEC    |   |         |        |        |  |
|---|--------------|---------|----------------|--------------|-----------|---|---------|--------|--------|--|
| DESCRIPTION   | MANUFACTURER | MODEL   | SIZE           | MANUFACTURER | MODEL     | ACCESSORY<br>REQUIREMENTS<br>I.R/BATTERY/HP | FLOW    | WASTE  | VENT   |  |
| IGLE LEVER HANDLE WITH ASSE 1070 SCALD<br>TECTION.      | KOHLER       | K-2032  | 20" X 18"      | CHICAGO      | 420-T     | MANUAL                                      | 0.5 GPM | 1 1/2" | 1 1/2" |  |
| BLE BOWL, 29"X18"X7 5/8" SINK WITH MANUAL<br>TED FAUCET | ELKAY        | LR2918  | 29"X18"X7 5/8" | ELKAY        | LK1000CR  | MANUAL                                      | 1.5 GPM | 2"     | 1 1/2" |  |
| E BOWL WITH MANUAL FLUSH VALVE                          | KOHLER       | K-96057 | N/A            | SLOAN        | REGAL 111 | MANUAL                                      | 1.6 GPF | 4"     | 2"     |  |

# PLUMBING SPECIALTY SCHEDULE

NOTES: 1. INSTALL PER MANUFACTURE'S INSTALLATION INSTRUCTIONS.

FIXTURE TYPE LOCATION MANUFACTURER MODEL # DESIG. IN SINK INSINKERATOR BADGER 5 GARBAGE DISPOSAL

SCALE: NONE

| - |   | - | <br> | <br>- | - | <br>- | - | - | - | - | - | - | - |  |
|---|---|---|------|-------|---|-------|---|---|---|---|---|---|---|--|
|   | 5 |   |      |       |   |       |   |   |   |   |   |   |   |  |

### CTIONS CW REMARKS 1/2" 1/2" PROVIDE WITH WALL CARRIER MATCHED TO WALL CONSTRUCTION 1/2" 1/2 1" -PROVIDE WITH KOHLER COMMERCIAL SEAT. K-4670. REMARKS HARD WIRED 1/2 HP. PROVIDE WITH WALL SWITCH, REFERENCE ELECTRICAL DRAWINGS FINISHED FLOOR ADJUSTABLE TYPE CLEANOUT FLUSH W/ FINISHED FLOOR SEE SPECIFICATIONS. — COMBINATION Y & 1/8 BEND FITTING -FLOW - WASTE/VENT PIPING FLOOR CLEANOUT (FCO) PROVIDE EXTENSION IF GREATER THAN 3" – WALL PLATE, CHROME PLATED, METAL OR STAINLESS STEEL (SEE SPEC'S) WALL OPENING SHALL BE 1" LARGER THAN PLUG DIAMETER THREADED BRASS ROD OR MACHINE SCREW - CLEANOUT TEE W/TAPER THREADED BRASS PLUG WALL CLEANOUT (WCO) CLEANOUT DETAIL

1319-08

# DEMOLITION GENERAL NOTES:

6

- 1. EXISTING ITEMS TO REMAIN ARE DENOTED LIGHTLY UNLESS OTHERWISE NOTED. ALL ITEMS SHOWN DASHED & BOLD SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- 2. CONTRACTOR SHALL NOT SHUT-OFF OR PUT-OUT OF SERVICE ANY SYSTEMS OR SERVICE WITHOUT FIRST COORDINATING WITH THE OWNER. 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND
- UNDERSTAND THE EXTENT OF THE REMODEL WORK REQUIRED PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR WORK REQUIRED TO ACHIEVE THE END RESULT AS INDICATED BY THE CONTRACT DOCUMENT. 4. CONTRACTOR SHALL DETERMINE AND COORDINATE THE EXACT EXTENT OF
- DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENT. 5. PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, VERIFY EXISTING
- CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION. 6. ALL ITEMS IDENTIFIED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY
- UNLESS OTHERWISE NOTED. REMOVED ITEMS SHALL BE TURNED OVER TO THE OWNER UNLESS OTHERWISE NOTED AND STORED IN THE AREA DESIGNATED BY THE OWNER. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL ITEMS THE OWNER CHOOSES NOT TO ACCEPT.
- 7. WHERE EXISTING PIPING, WIRING ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, THE WALLS SHALL BE REPAIRED TO MATCH ORIGINAL CONDITIONS.
- 8. WHERE EXISTING PIPING TO BE REMOVED PASSES THROUGH FLOORS, THEY SHALL BE CUT BACK TO WITHIN CONCRETE AND FILLED WITH GROUT TO ACHIEVE A SMOOTH AND EVEN FINISH WITH CONCRETE SURFACE.

# GENERAL NOTES:

- 1. WORK INCLUDED IN THE CONTRACT IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
- 2. A DETAILED METHOD OF PROCEDURE IS REQUIRED WHEN A CONSTRUCTION ACTIVITY AFFECTS THE SAFETY OF THE OCCUPANTS, OWNER'S EQUIPMENT OR VALUABLE CONTENTS OR ANY SYSTEM WHICH SUPPORTS THESE SYSTEMS; OR ESSENTIALLY AFFECTS THE BUILDING MANAGEMENT, OPERATIONS OR SECURITY.
- 3. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK AND SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY DISCREPANCIES FOR RESOLUTION.
- 4. COORDINATE WORK WITH ALL TRADES. 5. COORDINATE ALL PIPING WITH EQUIPMENT, STRUCTURE, ETC.
- 6. CONTRACTOR SHALL NOT SHUT DOWN / TAKE OUT OF SERVICE ANY SYSTEMS WITHOUT FIRST COORDINATING WITH OWNER AND PREPARING M.O.P.

# PLUMBING NOTES:

- 1. CONTRACTOR SHALL NOT SHUT-OFF/PUT OUT OF SERVICE ANY SYSTEMS/SERVICES WITHOUT FIRST COORDINATING WITH OWNER.
- 2. THIS CONTRACTOR SHALL COORDINATE LOCATIONS OF PIPING WITH OTHER TRADES AND ADVISE ARCHITECT/ENGINEER OF ANY POSSIBLE CONFLICTS. VERIFY EXACT LOCATIONS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS.
- 3. SEE SPECIFICATIONS FOR WATER HAMMER ARRESTOR SIZING. ALL FLUSH VALVES AND SOLENOID OPERATED EQUIPMENT SHALL HAVE A WATER HAMMER ARRESTOR.
- 4. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZING TO INDIVIDUAL PLUMBING FIXTURES.
- 5. ALL EXISTING FIXTURES AND EQUIPMENT TO BE REMOVED SHALL HAVE ALL ASSOCIATED PIPING CONTROLS, HANGERS, SUPPORTS AND ANY MISCELLANEOUS ASSOCIATED SERVICE OR PART REMOVED COMPLETELY.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE ELEVATIONS AND LOCATIONS.
- SEE ARCHITECTURAL CONSTRUCTION DOCUMENTS FOR DIMENSIONED LOCATION OF PLUMBING FIXTURES AND WALLS.
- 8. PROVIDE CLEANOUTS IN ACCESSIBLE LOCATIONS PER THE PROJECT SPECIFICATIONS AND LOCAL PLUMBING CODES.

# FOUNDATION PLUMBING NOTES:

- 1. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK.
- 2. COORDINATE WORK WITH ALL TRADES. 3. SEE ARCHITECTURAL CONSTRUCTION DOCUMENTS FOR EXACT LOCATION
- OF PLUMBING FIXTURES AND WALLS. 4. PROVIDE A WALL CLEANOUT ON ALL VERTICAL VENT PIPING SERVING BELOW GRADE HORIZONTAL WASTE PIPING.

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![](_page_9_Figure_0.jpeg)

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![](_page_9_Figure_2.jpeg)

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![](_page_9_Picture_5.jpeg)

![](_page_9_Picture_7.jpeg)

![](_page_10_Figure_0.jpeg)

PM 435

![](_page_10_Figure_1.jpeg)

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| 6   |  |
|-----|--|
|     | KEYNOTES   |
| P3  | CONNECT NEW 2" VENT TO VERTICAL VENT RISER PIPE. MODIFY EXISTING AS REQUIRED TO MAKE A PROPER CONNECTION.  |
| P4  | REMOVE EXISTING LAVATORY AND FAUCET. REMOVE WASTE PIPING BACK INSIDE WALL AND CAP.   |
| P5  | REMOVE EXISTING WATER CLOSET. REMOVE WASTE PIPING DOWN<br>BELOW FLOOR SLAB AND CAP.  |
| P6  | REMOVE EXISTING VENT PIPING.   |
| P12 | CONNECT TO EXISTING VENT PIPING. MODIFY EXISTING PIPING AS<br>REQUIRED TO MAKE A PROPER CONNECTION. PROVDE REDUCER AS<br>NEEDED.   |
| P13 | REMOVE EXISTING FLOOR SLAB AS REQUIRED AND EXTEND NEW WASTE<br>PIPE FROM NEW SINK TO EXISTING WASTE PIPING NEAR DEMOLISHED<br>TOILET. MODIFY EXISTING WASTE PIPING AS REQUIRED TO MAKE A<br>PROPER CONNECTION. CONTRACTOR SHALL VERIFY LOCATION OF<br>EXISTING WASTE PIPING PRIOR TO DEMOLITION OF FLOOR SLAB. |
| P14 | LOCATE NEW 1 1/2" WASTE FROM SINK IN NEW WALL. EXTEND NEAR NEW TOILET AND DROP BELOW EXISTING SLAB.  |
| P15 | REMOVE EXISTING COUNTERTOP SINK AND FAUCET. REMOVE EXISTING WASTE BACK INSIDE WALL AND CAP.  |
| P16 | REMOVE EXISTING FLOOR SLAB AS REQUIRED AND EXTEND NEW WASTE<br>PIPE FROM TOILET TO NEAREST EXISTING MAIN. MODIFY EXISTING WASTE<br>PIPING AS REQUIRED TO MAKE A PROPER CONNECTION. CONTRACTOR<br>SHALL VERIFY LOCATION OF EXISTING WASTE PIPING PRIOR TO<br>DEMOLITION OF FLOOR SLAB.                          |

5

PROJECT LOCATION KEY PLAN SCALE: NONE **IENTS** 

M

| 420 South Orch<br>(208) 343-36   | SSOCIAT<br>ard Street, Bo   | RUMA<br>ES, CO.<br>ise, ID 83705<br>orruma.com |
|--|---|--|
| 205 N. 10th Street<br>Suite 300<br>Boise, Idaho 83702<br>208.343.7523  | 82 Constitution Way,<br>uite 111<br>Jaho Falls, ID 83402<br>08.343.7523 | EL<br>HITECTS<br>hummelarch.com                |
| r o j e c t :<br>FSD 2023 CAP<br>ACKAGE 7, RE<br>'LEARY MIDDI<br>'SO ELIZABETH BLVD<br>VIN FALLS, ID 83301   | PITAL IMPRC<br>ESTROOM R<br>LE SCHOOL                                   | VEMENTS<br>EMODEL AT                           |
| EVEL 1 WA<br>PLANS   | ASTE & VI   | ENT  |
| SUSTESSIONAL FAG<br>LICENSED FE<br>20608<br>12/21/2023<br>15:142/21/2023<br>15:142/21/2023<br>15:142/21/2023 |   |  |
|  | Project No:<br>Drawn By:<br>Checked By:<br>Date:<br>Sheet No            | 23010-00<br>BS<br>LJ<br>12/22/2023             |

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|---|
|   |

|   | (Not all symbols listed b  | ER LEGEN  | D<br>hese drawings)   |  | REFERENCE S   | YMBOLS   | S LEGEND   |
|---|--|---|---|--|---|--|--|
| SYMBOL  | DESCRIPTION  | SYMBOL  | DESCRIPTION   | SYMBOL   | DESCRIPTION   | SYMBOL   | DESCRIPTION  |
| φ   | SINGLE RECEPTACLE  |   | ELECTRICAL PANELBOARD, CONTROL PANEL, OR OTHER CABINET AS NOTED   | $\langle \rangle$  | KEY NOTE REFERENCE  |  | KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENC   |
| <b>₽ Φ 0</b>  | DUPLEX RECEPTACLE; WALL, CEILING, FLOOR MOUNTED  | н РМ — I  | PLUG MOLD (MULTI-OUTLET ASSEMBLY)   | LPA-#  | TYPICAL CIRCUIT NUMBER  |  | EXISTING TO REMAIN   |
| + + + ⊕   | DOUBLE DUPLEX RECEPTACLE; WALL, CEILING, FLOOR MOUNTED   | н—н   | WIREMOLD (SURFACE RACEWAY)  | ) TG# (  | TYPICAL LUMINAIRE TYPE  | $\underline{\}$  | EXISTING TO BE REMOVED   |
| <b>†</b>  | SPECIAL RECEPTACLE; WALL, CEILING, FLOOR MOUNTED   |   | CONDUIT CONCEALED   |  | TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)   | Â  | EXISTING TO BE RELOCATED   |
| $\overline{\mathbb{Q}}$ $\overline{\mathbb{Q}}$   | JUNCTION BOX; WALL, CEILING, FLOOR MOUNTED   | — — UG— —   | CONDUIT, UNDERGROUND OR CONCEALED IN FLOOR  | VH VH  | MECHANICAL EQUIPMENT REFERENCE  | Â  | EXISTING TO REMAIN - REPLACE DEVICE  |
| •<br>•<br>•   | DUPLEX RECEPTACLE, HALF CONTROLLED   | <b>●</b>  | CONDUIT TURNING DOWN  |  | LIGHTING CONTROL / EQUIPMENT REFERENCE  | R  | EXISTING TO BE REMOVED AND REPLACED  |
| <b>0 0</b>  | DUPLEX RECEPTACLE, FULL CONTROLLED   |   | CONDUIT TURNING UP  | LC1  | ELECTRICAL ACCESSORIES REFERENCE  |  |  |
| <b>⊕ ⊕ ⊕</b>  | DOUBLE DUPLEX RECEPTACLE, HALF CONTROLLED  |   | CONDUIT CAPPED  |  |   |  |  |
| <b>+ + +</b>  | DOUBLE DUPLEX RECEPTACLE, FULL CONTROLLED  | <u> </u>  | GROUND BAR  |  |   |  |  |
| Image: Provide and the second seco |  |   |   |  | ADDREVIAI<br>(Not all symbols listed be)  | IUNJ LE  | GEND   |
|   | DISCONNECT SWITCH (NON-FUSED)  |   | TRANSFORMER   | SYMBOL   | DESCRIPTION   |  | DESCRIPTION  |
|   | DISCONNECT SWITCH (FUSED)  | СТ  | CURRENT TRANSFORMER   | A  | AMPERES   | MCP  | MOTOR CIRCUIT PROTECTOR  |
| 교   | VARIABLE SPEED DRIVE WITH DISCONNECT   |   | THERMOSTAT  | AC   | ABOVE COUNTER, MOUNT HORIZONTALLY TO CENTERLINE OF DEVICE,  | MEC  | SEE MECHANICAL EQUIPMENT SCHEDULE  |
|   |  | GANN  |   | AFF  | ABOVE FUNISHED FLOOR  | MIN  | MINIMUM  |
| <br>  |  |   |   | AFG  |   | MLO  |  |
|   |  |   |   |  |   | MTS  |  |
|   |  |   | POWER POLE  |  |   | NC   |  |
|   |  |   |   |  |   |  |  |
|   | LIGHTI   | NG LEGE   | ND  | A35D   |   |  |  |
|   | (Not all symbols listed below are used on these drawings)  |   | hese drawings)  |  |   |  |  |
| SYMBOL  |  |   | DESCRIPTION   | BFG  |   | NU   |  |
| A a   | INDICATES SWITCHING, UPPER CASE SUBSCRIPT<br>INDICATES SWITCHING, UPPER CASE SUBSCRIPT INDICATES   |   | PENDANT LUMINAIRE - SINGLE SUSPENSION   |  |   | N15  | NOT TO SCALE   |
|   | LUMINAIRE TYPE (TYP)   |   |   | CATV   | CABLE TELEVISION  | 00   |  |
|   |  |   |   | 0.5  |   | 0501   |  |
|   | TROFFER - RECESSED   | $\odot$   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION   | СВ   |   | OFCI   | OWNER FURNISHED, CONTRACTOR INSTALLED  |
|   | TROFFER - RECESSED   | ······  | PENDANT LUMINAIRE - MULTIPLE SUSPENSION   | CB<br>CCTV   | CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION   | OFCI<br>OFOI   | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED   |
| •   | TROFFER - RECESSED   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION WALL MOUNTED LUMINAIRE  | CB<br>CCTV<br>(E)  | CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION EXISTING  | OFCI<br>OFOI<br>OSWF   | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION WALL MOUNTED LUMINAIRE  | CB<br>CCTV<br>(E)<br>EM  | CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION EXISTING EMERGENCY  | OFCI<br>OFOI<br>OSWF<br>PB   | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX   |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION WALL MOUNTED LUMINAIRE IN-WALL LUMINAIRE  | CB<br>CCTV<br>(E)<br>EM<br>EMDC  | CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION EXISTING EMERGENCY EMERGENCY MAIN DISTRIBUTION CENTER   | OFCI<br>OFOI<br>OSWF<br>PB<br>SB   | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX         STAND-BY  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION WALL MOUNTED LUMINAIRE IN-WALL LUMINAIRE  | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP  | CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION EXISTING EMERGENCY EMERGENCY MAIN DISTRIBUTION CENTER EXPLOSION PROOF   | OFCI<br>OFOI<br>OSWF<br>PB<br>SB<br>SDC  | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX         STAND-BY         SUB-DISTRIBUTION CENTER  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION WALL MOUNTED LUMINAIRE IN-WALL LUMINAIRE POLE LUMINAIRE - ARM MOUNTED   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO   | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF   | OFCI<br>OFOI<br>OSWF<br>PB<br>SB<br>SDC<br>TP  | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX         STAND-BY         SUB-DISTRIBUTION CENTER         TAMPER PROOF   |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO  | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF   | OFCI<br>OFOI<br>OSWF<br>PB<br>SB<br>SDC<br>TP<br>TVSS  | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX         STAND-BY         SUB-DISTRIBUTION CENTER         TAMPER PROOF         TRANSIENT VOLTAGE SURGE SUPPRESSER  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED  |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC   | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER  | OFCI<br>OFOI<br>OSWF<br>PB<br>SB<br>SB<br>SDC<br>TP<br>TVSS<br>TYP   | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX         STAND-BY         SUB-DISTRIBUTION CENTER         TAMPER PROOF         TRANSIENT VOLTAGE SURGE SUPPRESSER         TYPICAL  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED  | ○       ○    <  | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA   | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM  | OFCI<br>OFOI<br>OSWF<br>PB<br>SB<br>SDC<br>TP<br>TVSS<br>TYP<br>UF   | OWNER FURNISHED, CONTRACTOR INSTALLED         OWNER FURNISHED, OWNER INSTALLED         ON SITE WORK FORCE         PULL BOX         STAND-BY         SUB-DISTRIBUTION CENTER         TAMPER PROOF         TRANSIENT VOLTAGE SURGE SUPPRESSER         TYPICAL         UNDER FLOOR  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED DOWNLIGHT - SURFACE  | <ul> <li>○</li> <li>○</li></ul> | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EVO<br>EWC<br>FA<br>G   | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND  | <ul> <li>OFCI</li> <li>OFOI</li> <li>OFOI</li> <li>OSWF</li> <li>PB</li> <li>SB</li> <li>SDC</li> <li>TP</li> <li>TVSS</li> <li>TYP</li> <li>UF</li> <li>UG</li> </ul>   | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUND   |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED DOWNLIGHT - SURFACE  | · · · · · · · · · · · · · · · · · · ·   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP   | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL   | <ul> <li>OFCI</li> <li>OFOI</li> <li>OFOI</li> <li>OSWF</li> <li>PB</li> <li>SB</li> <li>SDC</li> <li>TP</li> <li>TVSS</li> <li>TYP</li> <li>UF</li> <li>UG</li> <li>UON</li> </ul>  | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTED   |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED COUNLIGHT - SURFACE EXIT SIGN - CEILING MOUNTED  |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK  | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI                                   | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER   | OFCIOFOIOFOIOSWFPBSBSDCTVSSTVSSTYPUFUGUONUPS   | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLY   |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED LINEAR LUMINAIRE - RECESSED DIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED DOWNLIGHT - SURFACE EXIT SIGN - CEILING MOUNTED EXIT SIGN - WALL MOUNTED (FLUSH TO WALL)   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK         EXTERIOR STAKE MOUNTED   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI<br>HOA                            | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER<br>HAND OFF AUTOMATIC   | OFCI           OFOI           OFOI           OSWF           PB           SB           SDC           TP           TVSS           TYP           UF           UG           UON           V  | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLYVOLTS  |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED DOWNLIGHT - SURFACE EXIT SIGN - CEILING MOUNTED EXIT SIGN - WALL MOUNTED (FLUSH TO WALL) EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL)   |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK         EXTERIOR STAKE MOUNTED         EMERGENCY LIGHTING UNIT - WALL MOUNTED  | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI<br>HOA<br>IG                      | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER<br>HAND OFF AUTOMATIC<br>ISOLATED GROUND  | OFCIOFCIOFOIOSWFPBSBSDCTPTVSSTYPUFUFUGUONUPSVVFD   | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLYVOLTSVARIABLE FREQUENCY DRIVE                                    |
|   | TROFFER - RECESSED         SURFACE LUMINAIRE         LINEAR LUMINAIRE - RECESSED         FIELD MEASURED LUMINAIRE<br>LENGTH AND SHAPE DENOTED BY LINEWORK<br>SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE         DOWNLIGHT - RECESSED         DOWNLIGHT - SURFACE         EXIT SIGN - CEILING MOUNTED         EXIT SIGN - WALL MOUNTED (FLUSH TO WALL)         EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL)         INDICATES EXIT SIGN FACES - SINGLE OR DOUBLE  |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK         EXTERIOR STAKE MOUNTED         EMERGENCY LIGHTING UNIT - WALL MOUNTED         EMERGENCY LIGHTING UNIT - CEILING MOUNTED                                      | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI<br>HOA<br>IG<br>MAX               | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER<br>HAND OFF AUTOMATIC<br>ISOLATED GROUND<br>MAXIMUM   | OFCI           OFOI           OFOI           OSWF           PB           SB           SDC           TP           TVSS           TYP           UF           UG           UON           UPS           V           VFD           W/                             | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLYVOLTSVARIABLE FREQUENCY DRIVEWITH                                |
|   | TROFFER - RECESSED         SURFACE LUMINAIRE         LINEAR LUMINAIRE - RECESSED         FIELD MEASURED LUMINAIRE<br>LENGTH AND SHAPE DENOTED BY LINEWORK<br>SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE         DOWNLIGHT - RECESSED         DOWNLIGHT - RECESSED         EXIT SIGN - CEILING MOUNTED         EXIT SIGN - CEILING MOUNTED (FLUSH TO WALL)         EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL)         INDICATES EXIT SIGN FACES - SINGLE OR DOUBLE         INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH  |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK         EXTERIOR STAKE MOUNTED         EMERGENCY LIGHTING UNIT - WALL MOUNTED         INDICATES DIRECTIONAL AIMING   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI<br>HOA<br>IG<br>MAX<br>MCB        | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER<br>HAND OFF AUTOMATIC<br>ISOLATED GROUND<br>MAXIMUM<br>MAIN CIRCUIT BREAKER   | OFCI           OFOI           OFOI           OSWF           PB           SB           SDC           TP           TVSS           TYP           UF           UG           UON           V           V           W/           W/O                               | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLYVOLTSVARIABLE FREQUENCY DRIVEWITHWITHOUT                         |
|   | TROFFER - RECESSED SURFACE LUMINAIRE SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED DOWNLIGHT - RECESSED SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE EXIT SIGN - CEILING MOUNTED EXIT SIGN - CEILING MOUNTED EXIT SIGN - WALL MOUNTED (FLUSH TO WALL) EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL) EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL) INDICATES EXIT SIGN FACES - SINGLE OR DOUBLE INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK         EXTERIOR STAKE MOUNTED         EMERGENCY LIGHTING UNIT - WALL MOUNTED         EMERGENCY LIGHTING UNIT - CEILING MOUNTED         INDICATES DIRECTIONAL AIMING | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI<br>HOA<br>IG<br>MAX<br>MCB<br>MCC | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER<br>HAND OFF AUTOMATIC<br>ISOLATED GROUND<br>MAXIMUM<br>MAIN CIRCUIT BREAKER<br>MOTOR CONTROL CENTER                             | OFCI           OFOI           OFOI           OSWF           PB           SB           SDC           TP           TVSS           TYP           UF           UF           UF           UF           UF           VON           VVFD           W/O           WP | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLYVOLTSVARIABLE FREQUENCY DRIVEWITHWITHOUTWEATHER PROOF            |
|   | TROFFER - RECESSED SURFACE LUMINAIRE LINEAR LUMINAIRE - RECESSED FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE DOWNLIGHT - RECESSED DOWNLIGHT - SURFACE EXIT SIGN - CEILING MOUNTED EXIT SIGN - CEILING MOUNTED EXIT SIGN - WALL MOUNTED (FLUSH TO WALL) EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL) INDICATES EXIT SIGN FACES - SINGLE OR DOUBLE INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH  |   | PENDANT LUMINAIRE - MULTIPLE SUSPENSION         WALL MOUNTED LUMINAIRE         IN-WALL LUMINAIRE         POLE LUMINAIRE - ARM MOUNTED         POLE LUMINAIRE - POST TOP         BOLLARD         TRACK HEAD AND TRACK         EXTERIOR STAKE MOUNTED         EMERGENCY LIGHTING UNIT - CEILING MOUNTED         IND   | CB<br>CCTV<br>(E)<br>EM<br>EMDC<br>EP<br>EPO<br>EVO<br>EWC<br>FA<br>G<br>GCP<br>GFCI<br>HOA<br>IG<br>MAX<br>MCB<br>MCC | CIRCUIT BREAKER<br>CLOSED CIRCUIT TELEVISION<br>EXISTING<br>EMERGENCY<br>EMERGENCY MAIN DISTRIBUTION CENTER<br>EXPLOSION PROOF<br>EMERGENCY POWER OFF<br>EMERGENCY VENTILATION ON/OFF<br>ELECTRIC WATER COOLER<br>FIRE ALARM<br>GROUND<br>GENERATOR CONTROL PANEL<br>GROUND FAULT CIRCUIT INTERRUPTER<br>HAND OFF AUTOMATIC<br>ISOLATED GROUND<br>MAXIMUM<br>MAIN CIRCUIT BREAKER<br>MOTOR CONTROL CENTER<br>MAIN DISTRIBUTION CENTER | OFCI           OFOI           OFOI           OSWF           PB           SB           SDC           TP           TVSS           TYP           UF           UG           UUN           US           V           VFD           W/           W/O           XFMR | OWNER FURNISHED, CONTRACTOR INSTALLEDOWNER FURNISHED, OWNER INSTALLEDON SITE WORK FORCEPULL BOXSTAND-BYSUB-DISTRIBUTION CENTERTAMPER PROOFTRANSIENT VOLTAGE SURGE SUPPRESSERTYPICALUNDER FLOORUNDER GROUNDUNLESS OTHERWISE NOTEDUNINTERRUPTIBLE POWER SUPPLYVOLTSVARIABLE FREQUENCY DRIVEWITHWITHOUTWEATHER PROOFTRANSFORMER |

|   | POWE<br>(Not all symbols listed by  | R LEGEN                   | D<br>nese drawings)   |                   | REFERENCE S<br>(Not all symbols listed bel  | YMBOLS     | S LEGEND<br>hese drawings)                |
|---|---|---------------------------|---|-------------------|---|------------|---|
| SYMBOL  | DESCRIPTION   | SYMBOL                    | DESCRIPTION   | SYMBOL            | DESCRIPTION   | SYMBOL     | DESCRIPTION                               |
| φ   | SINGLE RECEPTACLE   |                           | ELECTRICAL PANELBOARD, CONTROL PANEL, OR OTHER CABINET AS NOTED | $\langle \rangle$ | KEY NOTE REFERENCE  |            | KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE |
| φ φ <b>Φ</b>                                    | DUPLEX RECEPTACLE; WALL, CEILING, FLOOR MOUNTED   | н РМ — I                  | PLUG MOLD (MULTI-OUTLET ASSEMBLY)                               | LPA-#             | TYPICAL CIRCUIT NUMBER  | Ē          | EXISTING TO REMAIN                        |
| ♥ ♥ ₽   | DOUBLE DUPLEX RECEPTACLE; WALL, CEILING, FLOOR MOUNTED                                  | <b>⊢</b> −₩M−−−− <b>1</b> | WIREMOLD (SURFACE RACEWAY)                                      | ) TG# (           | TYPICAL LUMINAIRE TYPE  | R          | EXISTING TO BE REMOVED                    |
| <b>†</b>  | SPECIAL RECEPTACLE; WALL, CEILING, FLOOR MOUNTED  |                           | CONDUIT CONCEALED   | $\bigcirc$        | TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)   | Â          | EXISTING TO BE RELOCATED                  |
| $\overline{\mathbb{Q}}$ $\overline{\mathbb{Q}}$ | JUNCTION BOX; WALL, CEILING, FLOOR MOUNTED  | — — UG— —                 | CONDUIT, UNDERGROUND OR CONCEALED IN FLOOR                      | UH                | MECHANICAL EQUIPMENT REFERENCE  | Â          | EXISTING TO REMAIN - REPLACE DEVICE       |
| • • <b>D</b>                                    | DUPLEX RECEPTACLE, HALF CONTROLLED  |                           | CONDUIT TURNING DOWN  | LC1               | LIGHTING CONTROL / EQUIPMENT REFERENCE  | Ŕ          | EXISTING TO BE REMOVED AND REPLACED       |
| <b>•</b> • <b>•</b>                             | DUPLEX RECEPTACLE, FULL CONTROLLED  |                           | CONDUIT TURNING UP  | <u>LC1</u>        | ELECTRICAL ACCESSORIES REFERENCE  |            |   |
|   | - 🔶 🤁 DOUBLE DUPLEX RECEPTACLE, HALF CONTROLLED   |                           | CONDUIT CAPPED  |                   |   | <b>4</b> 4 | •   |
| <b>† † D</b>                                    | DOUBLE DUPLEX RECEPTACLE, FULL CONTROLLED   | <u> </u>                  | GROUND BAR  |                   |   |            |   |
| <b>Ф</b> <sub>A-1</sub>                         | SHADING INDICATES EMERGENCY SYSTEM  |                           | MAIN SWITCHBOARD/DISTRIBUTION CENTER                            |                   | ADDREVIAI<br>(Not all symbols listed bel  | IONJ LE    | hese drawings)                            |
|   | DISCONNECT SWITCH (NON-FUSED)   | Т                         | TRANSFORMER   | SYMBOL            | DESCRIPTION   | SYMBOL     | DESCRIPTION                               |
| D   | DISCONNECT SWITCH (FUSED)   | СТ                        | CURRENT TRANSFORMER   | A                 | AMPERES   | MCP        | MOTOR CIRCUIT PROTECTOR                   |
|   | VARIABLE SPEED DRIVE WITH DISCONNECT  |                           | THERMOSTAT  | AC                | ABOVE COUNTER, MOUNT HORIZONTALLY TO CENTERLINE OF DEVICE,<br>+6" ABOVE COUNTER OR BACK SPI ASH | MEC        | SEE MECHANICAL EQUIPMENT SCHEDULE         |
| ଜ   | ENCLOSED CIRCUIT BREAKER  | GANN                      | GENERATOR ANNUNCIATOR PANEL                                     | AFF               | ABOVE FINISHED FLOOR  | MIN        | MINIMUM                                   |
| S   | TOGGLE SWITCH   |                           | UTILITY METER   | AFG               | ABOVE FINISHED GRADE  | MLO        | MAIN LUGS ONLY                            |
|   |   |                           | POWER POLE  | ANN               | ANNUNCIATOR   | MTS        | MANUAL TRANSFER SWITCH                    |
| $\square$                                       |   |                           |   | ARF               | ABOVE RAISED FLOOR  | NC         | NORMALLY CLOSED                           |
|   |   |                           |   | ASSD              | AIR SAMPLING SMOKE DETECTION  | NIC        | NOT IN CONTRACT                           |
|   | LIGHIIN<br>(Not all symbols listed bei  |                           | ND<br>hese drawings)  | ATS               | AUTOMATIC TRANSFER SWITCH   | NL         | NIGHT LIGHT                               |
| SYMBOL  | (Not all symbols listed below are used on these drawings)                               |                           | DESCRIPTION   | BFG               | BELOW FINISHED GRADE  | NO         | NORMALLY OPEN                             |
|   | SHADING INDICATES EM SYSTEM, LOWER CASE SUBSCRIPT                                       |                           |   | С                 | CONDUIT   | NTS        | NOT TO SCALE                              |
| A A   | INDICATES SWITCHING, UPPER CASE SUBSCRIPT INDICATES<br>LUMINAIRE TYPE (TYP)             |                           | PENDANT LUMINAIRE - SINGLE SUSPENSION                           | CATV              | CABLE TELEVISION  | OC         | ON CENTER                                 |
|   |   | 0                         |   | СВ                | CIRCUIT BREAKER   | OFCI       | OWNER FURNISHED, CONTRACTOR INSTALLED     |
|   | TROFFER - RECESSED  |                           | PENDANT LUMINAIRE - MULTIPLE SUSPENSION                         | CCTV              | CLOSED CIRCUIT TELEVISION   | OFOI       | OWNER FURNISHED, OWNER INSTALLED          |
|   |   | Q                         |   | (E)               | EXISTING  | OSWF       | ON SITE WORK FORCE                        |
|   | SURFACE LUMINAIRE   |                           | WALL MOUNTED LUMINAIRE  | EM                | EMERGENCY   | PB         | PULL BOX                                  |
|   |   | <br>                      |   | EMDC              | EMERGENCY MAIN DISTRIBUTION CENTER  | SB         | STAND-BY                                  |
|   | LINEAR LUMINAIRE - RECESSED   | l d                       | IN-WALL LUMINAIRE   | EP                | EXPLOSION PROOF   | SDC        | SUB-DISTRIBUTION CENTER                   |
|   | FIELD MEASURED LUMINAIRE  |                           |   | EPO               | EMERGENCY POWER OFF   | TP         | TAMPER PROOF                              |
|   | LENGTH AND SHAPE DENOTED BY LINEWORK<br>SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE | 비꾺꾺                       | POLE LUMINAIRE - ARM MOUNTED                                    | EVO               | EMERGENCY VENTILATION ON/OFF  | TVSS       | TRANSIENT VOLTAGE SURGE SUPPRESSER        |
|   |   |                           |   | EWC               | ELECTRIC WATER COOLER   | TYP        | TYPICAL                                   |
| Ø Ø   | DOWNLIGHT - RECESSED  | 비규꾸                       | POLE LUMINAIRE - POST TOP                                       | FA                | FIRE ALARM  | UF         | UNDER FLOOR                               |
|   |   |                           |   | G                 | GROUND  | UG         | UNDER GROUND                              |
|   | DOWNLIGHT - SURFACE   |                           | BOLLARD   | GCP               | GENERATOR CONTROL PANEL   | UON        | UNLESS OTHERWISE NOTED                    |
| ⊗   |   |                           | TRACK HEAD AND TRACK  | GFCI              | GROUND FAULT CIRCUIT INTERRUPTER  | UPS        | UNINTERRUPTIBLE POWER SUPPLY              |
| <br>⊗   | EXIT SIGN - WALL MOUNTED (FLUSH TO WALL)  |                           | EXTERIOR STAKE MOUNTED  | HOA               | HAND OFF AUTOMATIC  | V          | VOLTS                                     |
| 8 9   | EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL)   |                           | EMERGENCY LIGHTING UNIT - WALL MOUNTED                          | IG                | ISOLATED GROUND   | VFD        | VARIABLE FREQUENCY DRIVE                  |
|   | INDICATES EXIT SIGN FACES - SINGLE OR DOUBLE  |                           | EMERGENCY LIGHTING UNIT - CEILING MOUNTED                       | MAX               | MAXIMUM   | W/         | WITH                                      |
| * 1   |   |                           |   | MCB               |   | W/O        | WITHOUT                                   |
| ◆ <b>≵</b>                                      | INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH                                       |                           | INDICATES DIRECTIONAL AIMING                                    | INOD              |   | VV/O       | WIIIIOOI                                  |
| • •   | INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH                                       |                           | INDICATES DIRECTIONAL AIMING                                    | MCC               | MOTOR CONTROL CENTER  | WP         | WEATHER PROOF                             |
| · :   | INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH                                       |                           |   | MCC               | MOTOR CONTROL CENTER<br>MAIN DISTRIBUTION CENTER  | WP<br>XFMR | WEATHER PROOF<br>TRANSFORMER              |

|                 | (Not all symbols listed below  | S LEGE          | ND<br>nese drawings)  |
|-----------------|--|-----------------|---|
| SYMBOL          | DESCRIPTION  | SYMBOL          | DESCRIPTION   |
| Sa              | SINGLE POLE SWITCH (SUBSCRIPT DENOTES SWITCHING)                     | s <sub>vs</sub> | VARIABLE SPEED/SPEED CONTROLLER SWITCH  |
| s <sub>2</sub>  | TWO POLE SWITCH  | S <sub>EP</sub> | EXPLOSION PROOF SWITCH  |
| s <sub>3</sub>  | THREE-WAY SWITCH   | s <sub>to</sub> | THERMAL OVERLOAD SWITCH   |
| s <sub>4</sub>  | FOUR-WAY SWITCH  | s <sub>MC</sub> | MOMENTARY CONTACT SWITCH  |
| s <sub>k</sub>  | KEY OPERATED SWITCH  | <b>Q</b> ∕s     | COMBINATION SWITCH AND DUPLEX RECEPTACLE  |
| S <sub>M</sub>  | MANUAL SWITCH, HORSEPOWER RATE                                       | P               | PHOTOCELL   |
| s <sub>D</sub>  | DIMMER SWITCH  | •               | PUSH BUTTON   |
| S <sub>PI</sub> | SWITCH WITH PILOT LIGHT<br>(PILOT LIGHT IS 'ON' WHEN SWITCH IS 'ON') | TC              | TIME CLOCK  |
| S <sub>P</sub>  | SWITCH WITH PILOT LIGHT LOCATOR<br>(CONTINUOUSLY LIGHTED HANDLE)     | Ð               | OCCUPANCY SENSOR - WALL MOUNTED<br>IR=INFRARED, US=ULTRASONIC, DT=DUAL TECHNOLOGY |
| S <sub>LV</sub> | LOW VOLTAGE SWITCH   |                 |   |

|        |  |                  | GEND                                  |        | SERVICE ENTRANCE TRANSFORMER                                     | ·/                                     | TRANSFER SWITCH - ATS=AUT | OMATIC, MTS=MANUAL           |  |
|--------|--|------------------|---------------------------------------|--------|--|--|---------------------------|------------------------------|--|
|        | (Not all symbols listed below  | v are used on th | ese drawings)                         |        | METER  | GFI                                    | GROUND FAULT INTERRUPTER  | 2                            |  |
| SYMBOL | DESCRIPTION  | SYMBOL           | DESCRIPTION                           |        | EQUIPMENT ENCLOSURE  | SPD                                    | SURGE PROTECTIVE DEVICE   |                              |  |
| AC     | ABOVE COUNTER, MOUNT HORIZONTALLY TO CENTERLINE OF DEVICE, +6"<br>ABOVE COUNTER OR BACK SPLASH | NTS              | NOT TO SCALE                          |        | SERVICE WEATHERHEAD  | 5                                      | SHUNT TRIP                |                              |  |
| AFF    | ABOVE FINISHED FLOOR   | OC               | ON CENTER                             |        | SHORT CIRCUIT CURRENT AVAILABLE                                  | >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> | TERMINATIONS LB=LOAD BRE  | AK, NLB=NO LOAD BREAK        |  |
| AFG    | ABOVE FINISHED GRADE   | OFCI             | OWNER FURNISHED, CONTRACTOR INSTALLED | a 💦    | KIRK KEY INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP        | -≪ ≫–                                  | DRAW-OUT DEVICE           |                              |  |
| ARF    | ABOVE RAISED FLOOR   | OFOI             | OWNER FURNISHED, OWNER INSTALLED      | E a    | ELECTRICAL INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP      | $\parallel \rightarrow \rightarrow$    | PLUG-IN DEVICE            |                              |  |
| BFG    | BELOW FINISHED GRADE   | OSWF             | ON SITE WORK FORCE                    |        | MECHANICAL INTERLOCK   | EO                                     | ELECTRICALLY OPERATED     |                              |  |
| BIO    | BIO-HAZARD   | PB               | PULL BOX                              |        |  |  |                           |                              |  |
| С      | CONDUIT  | PZ               | PIEZO/SOUNDER                         |        | SECURI   |  | ND                        |                              |  |
| CATV   | CABLE TELEVISION   | POS              | POINT OF SALES                        |        | (Not all symbols listed be                                       | ow are used on t                       | hese drawings)            |                              |  |
| CCTV   | CLOSED CIRCUIT TELEVISION  | RIO              | ROUGH IN ONLY                         | SYMBOL | DESCRIPTION  | SYMBOL                                 | DES                       | SCRIPTION                    |  |
| CTRL   | CONTROL  | SB               | STAND-BY                              |        | WALL FIELD   |  | CARD READER (XXX = SEE BE | ELOW)                        |  |
| (E)    | EXISTING   | SCH              | SCHEDULER                             | IS     | INTERCOM STATION   |  | BIO = BIOMETRIC           | KP = INTEGRATED KEYPAD       |  |
| EM     | EMERGENCY  | TC               | TIME CLOCK                            | IM     | INTERCOM MASTER STATION  |  | IL = INTEGRATED LOCK      | CB = CODE BLUE ELEVATOR CALL |  |
| EP     | EMERGENCY PHONE  | TP               | TAMPER PROOF                          | DA     | DURESS ALARM   | AO                                     | DOOR AUTO OPENER          |                              |  |
| ETC    | ELAPSE TIME CLOCK  | TR               | TELECOMMUNICATIONS ROOM               | MD     | MOTION DETECTOR  | <b>_</b>                               | DOOR CONTACT              |                              |  |
| EWB    | ELECTRIC WHITE BOARD   | TVSS             | TRANSIENT VOLTAGE SURGE SUPPRESSER    |        | CEILING MOUNTED MOTION DETECTOR                                  | EL                                     | ELECTRIC DOOR LOCK        |                              |  |
| FA     | FIRE ALARM   | TYP              | TYPICAL                               | GB     | GLASS BREAK DETECTOR   | ES                                     | ELECTRIC DOOR STRIKE      |                              |  |
| G      | GROUND   | UF               | UNDER FLOOR                           | GB     | CEILING MOUNTED GLASS BREAK DETECTOR                             | RX                                     | REQUEST TO EXIT           |                              |  |
| I/O P  | INPUT / OUTPUT PLATE   | UG               | UNDER GROUND                          | PP     | PUSH PAD   | EH                                     | ELECTRIC HINGE            |                              |  |
| LD     | LOCK DOWN  | UON              | UNLESS OTHERWISE NOTED                | KP     | KEYPAD   | EP                                     | ELECTRIC POWER TRANSFER   | R                            |  |
| MAX    | MAXIMUM  | UPS              | UNINTERRUPTIBLE POWER SUPPLY          |        | FIXED PTZ SECURITY CAMERA CLG MOUNTED(XX=CAMERA SCHEDULE NUMBER) | PS                                     | POWER SUPPLY              |                              |  |
| MIN    | МІЛІМИМ  | W/               | WITH                                  |        | FIXED SECURITY CAMERA WALL MOUNTED(XX=CAMERA SCHEDULE            | ML                                     | MAGNETIC DOOR LOCK        |                              |  |
| NC     | NORMALLY CLOSED  | W/O              | WITHOUT                               |        | NUNIDER)   | - LO                                   | LOCK OUT                  |                              |  |
| NIC    | NOT IN CONTRACT  | WM               | WIREMOLD                              |        | MULTI SENSOR SECURITY CAMERA (XX=CAMERA SCHEDULE NUMBER)         | LD                                     | LOCK DOWN                 |                              |  |
| NO     | NORMALLY OPEN  | WP               | WEATHER PROOF                         | ECB    | EMERGENCY CALL BOX   | DR                                     | DOOR RELEASE              |                              |  |
|        |  | GYLEG            | FND                                   |        |  |  | SECURITY CAMERA FIELD OF  | VIEW                         |  |

|           |                                     | TECHNOLC<br>(Not all symbols listed belo | OGY LEG             | END<br>ese drawings)        |                                      |        |  |                     |                             |
|-----------|-------------------------------------|--|---------------------|-----------------------------|--------------------------------------|--------|--|---------------------|-----------------------------|
| SYMBOL    | DESCRI                              | PTION                                    | SYMBOL              | DESCR                       | IPTION                               |        |  |                     |                             |
|           | WALL FIELD                          |  | ₩                   | CEILING MOUNTED OUTLET (#   | = QTY OF CABLES; XXX= SEE BELOW)     |        |  |                     |                             |
|           | TELECOM GROUND BAR                  |  |                     | AV = AUDIO VISUAL           | SEC = SECURITY                       |        | (Not all symbols liste                           | d below are used on | b LEGEND<br>these drawings) |
|           | WIRE BASKET TRAY                    |  |                     | WAP=WIRELESS ACCESS POIN    | IT PRJ = PROJECTOR                   | SYMBOL | DESCRIPTION                                      | SYMBO               | . DESCRIPTION               |
|           | CABLE TRAY                          |  |                     |                             |                                      |        | NOTE REFERENCE                                   |                     | DOOR NUMBER                 |
| _J_J_J_   | J-HOOK PATHWAY                      |  |                     | DATA POWER POLE (XXX = SEE  | BELOW)                               |        | OWNER/MEDICAL EQUIPMENT REFERENCE                | <u>A</u>            | EXISTING TO BE RELOCATED    |
| #         | FLOOR SPACE BOX DATA OUTLE          | T(# = QTY OF CABLES)                     |                     | SEC = SECURITY              | SR = SURFACE RACEWAY                 | Sheet  | # = TYPICAL LAYOUT TYPE                          |                     | - TR ZONE LINE              |
| #         | POKE-THRU (# = QTY OF CABLES        | 3)                                       | H⇒ <sub>zz</sub>    | TELEVISION COAXIAL CABLE (Z | Z = ELEVATION)                       | #      | T# = LOCATION OF TYPICAL LAYOUT TYPE INFORMATION |                     | REVISION                    |
| #         | DATA OUTLET (# = QTY OF CABL        | ES; XXX = SEE BELOW ZZ = ELEVATION)      | $\blacksquare$      | CEILING MOUNTED TELEVISION  | N COAXIAL OUTLET                     |        |  |                     |                             |
| ×xx<br>ZZ | D = MEDICAL/SUPPLY DISPENSE         | R RED = RED PHONE                        | J                   | FLOOR JBOX                  |                                      |        | •  |                     | -                           |
|           | EEG = EEG NETWORK                   | T = TRANSLATION PHONE                    |                     | POKE THRU; (XXX = SEE BELOV | ۷)                                   |        |  |                     |                             |
|           | EP = EMERGENCY PHONE                | TC = TIME CLOCK                          |                     | FF = FURNITURE FEED         | AV = AUDIO VISUAL                    |        |  |                     |                             |
|           | F = FACP                            | W = WALL PHONE                           |                     | WALL MOUNTED JBOX (XXX = S  | SEE BELOW; ZZ = ELEVATION)           |        |  |                     |                             |
|           | POS = POINT OF SALE                 | AV = AUDIO VISUAL                        |                     | CLG = CEILING               | AV = AUDIO VISUAL                    |        |  |                     |                             |
|           | RAD = RADIOLOGY NETWORK             | PRT = PRINTER                            | PB <sub>YY</sub>    | PULLBOX (YY = SIZE)         |                                      |        |  |                     |                             |
|           | SR = SURFACE RUNWAY                 | MFP = MULTI FUNCTIONS PRINTER            | (C)- <sub>YYY</sub> | CLOCK OUTLET (XXX = SEE BEI | _OW)                                 |        |  |                     |                             |
|           | BAS = BUILDING<br>AUTOMATION SYSTEM | WP = WEATHER PROOF                       | T ~ ~~~             | DS = DOUBLE SIDED           | DIGITAL (PROVIDE 1 CAT 6 CONNECTION) |        |  |                     |                             |
|           | SCH = SCHEDULER                     | SEC = SECURITY                           | TI                  | A = ANALOG                  |                                      |        |  |                     |                             |
|           | CP = CONTROL PANEL                  | CLK = CLOCK                              | ©© xxx              | COMBINATION CLOCK/SPEAKE    | R OUTLET (XXX = SEE BELOW)           |        |  |                     |                             |
|           |                                     |  |                     | A = ANALOG                  | D = DIGITAL                          |        |  |                     |                             |
|           |                                     |  | ©                   | CEILING MOUNTED CLOCK       |                                      |        |  |                     |                             |
|           |                                     |  | DAS                 | DISTRIBUTED ANTENNA SYSTE   | M                                    |        |  |                     |                             |
|           |                                     |  | WAP                 | WIRELESS ACCESS POINT ENC   | LOSURE                               |        |  |                     |                             |
|           |                                     |  |                     | EQUIPMENT RACK              |                                      |        |  |                     |                             |
|           |                                     |  |                     | WIRE MANAGER                |                                      |        |  |                     |                             |
|           |                                     |  |                     | CABINET                     |                                      |        |  |                     |                             |

С

D

|                 | ONE-LINE DIAC<br>(Not all symbols listed below                          | GRAM L<br>are used on th | EGEND<br>nese drawings)                              |
|-----------------|---|--------------------------|--|
| SYMBOL          | DESCRIPTION   | SYMBOL                   | DESCRIPTION  |
|                 | DISCONNECT SWITCH   | А                        | PANELBOARD "A"                                       |
| ⊡∕-             | DISCONNECT SWITCH, FUSED  | PM                       | EM=ENERGY METER, PM=POWER METER, CM=CIRCUIT MONITOR  |
| _^_             | CIRCUIT BREAKER   | VS                       | VOLTMETER TEST SWITCH                                |
|                 | FUSE  | AS —                     | AMMETER TEST SWITCH                                  |
| Ť               | GROUND  | $\odot$                  | VOLTMETER  |
| Т<br>##         | STEP DOWN TRANSFORMER, ## INDICATES KVA                                 | A                        | AMMETER  |
| TK<br>##        | K-RATED STEP DOWN TRANSFORMER<br>## INDICATES KVA, # INDICATES K RATING |                          | SEE FEEDER/MEC/TRANSFORMER SCHEDULES FOR FEEDER SIZE |
| $-\uparrow$     | CURRENT TRANSFORMER   | G                        | ENGINE GENERATOR                                     |
| $\neg \vdash$   | POTENTIAL TRANSFORMER   | I⊢                       | CONTACTOR/RELAY/CAPACITOR (AS NOTED)                 |
|                 | SERVICE ENTRANCE TRANSFORMER  | .\                       | TRANSFER SWITCH - ATS=AUTOMATIC, MTS=MANUAL          |
|                 | METER   | GFI                      | GROUND FAULT INTERRUPTER                             |
|                 | EQUIPMENT ENCLOSURE   | SPD                      | SURGE PROTECTIVE DEVICE                              |
| $\triangleleft$ | SERVICE WEATHERHEAD   | 5                        | SHUNT TRIP   |
| -X              | SHORT CIRCUIT CURRENT AVAILABLE   | >>                       | TERMINATIONS LB=LOAD BREAK, NLB=NO LOAD BREAK        |
| k a             | KIRK KEY INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP               | <b>→</b> ≪ ≫→            | DRAW-OUT DEVICE                                      |
| <u>ک</u> a      | ELECTRICAL INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP             | $\rightarrow$            | PLUG-IN DEVICE                                       |
| M               | MECHANICAL INTERLOCK  | EO                       | ELECTRICALLY OPERATED                                |

| 3 |
|---|
|   |

- REFER TO ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS FOR EXACT MOUNTING LOCATIONS OF DEVICES AND LUMINAIRES. 2. COORDINATE LUMINAIRE LOCATIONS WITH MECHANICAL PIPING, DUCTWORK, ETC., TO AVOID CONFLICTS. SEE SPECIFICATIONS FOR COORDINATION REQUIREMENTS.
- 3. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V AND 277V CIRCUIT.
- 4. CIRCUITS MAY BE COMBINED INTO HOMERUNS OF UP TO SIX (6) CURRENT CARRYING CONDUCTORS, INCLUDING NEUTRALS, UNLESS OTHERWISE INDICATED. WHERE CIRCUITS ARE COMBINED WITHIN A SINGLE CONDUIT, PROVIDE STRIPING FOR FULL LENGTH OF NEUTRAL CONDUCTOR INSULATION TO MATCH THE COLOR CODE OF THE ASSOCIATED PHASE CONDUCTOR. SEE SPECIFICATION FOR COLOR CODES.
- FIELD COORDINATE EXACT LOCATION OF CEILING MOUNTED OCCUPANCY SENSORS PER MANUFACTURER'S INSTRUCTIONS. OCCUPANCY/VACANCY SENSING DEVICES ARE SHOWN FOR GENERAL DESIGN INTENT ONLY. CONTRACTOR SHALL PROVIDE THE TYPE AND QUANTITY OF OCCUPANCY/VACANCY SENSING DEVICES AS NECESSARY FOR PROPER COVERAGE AND CONTROL OF LUMINAIRES WHERE INDICATED ON THE LIGHTING PLANS. FIELD ADJUSTMENT TO DEVICE LOCATIONS SHALL BE MADE AS REQUIRED TO CAPTURE ALL OCCUPANTS, WHETHER SITTING AT A DESK OR MOVING AROUND THE SPACE. ADDITIONAL DEVICES SHALL BE PROVIDED AND FIELD ADJUSTMENTS SHALL BE MADE AS NECESSARY, AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

# POWER PLAN NOTES:

- 1. RECEPTACLES INDICATED TO BE MOUNTED ABOVE COUNTER ARE TO BE MOUNTED HORIZONTALLY 6" ABOVE COUNTER UNLESS OTHERWISE NOTED. 2. COORDINATE AND VERIFY EXACT MOUNTING LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS, AND ANY FURNITURE OR
- SPECIALTY EQUIPMENT SUPPLIER DRAWINGS PRIOR TO ROUGH-IN. 3. NO RECEPTACLES SHALL BE MOUNTED BELOW +18" AFF.
- 4. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V CIRCUIT.
- 5. CIRCUITS MAY BE COMBINED INTO HOMERUNS OF UP TO SIX (6) CURRENT CARRYING CONDUCTORS, INCLUDING NEUTRALS, UNLESS OTHERWISE INDICATED. WHERE CIRCUITS ARE COMBINED WITHIN A SINGLE CONDUIT, PROVIDE STRIPING FOR FULL LENGTH OF NEUTRAL CONDUCTOR INSULATION TO MATCH THE COLOR CODE OF THE ASSOCIATED PHASE CONDUCTOR. SEE SPECIFICATION FOR COLOR CODES.
- 6. GFCI RECEPTACLES ARE NOT GENERALLY SHOWN ON DRAWINGS. ALL RECEPTACLE OUTLETS LOCATED IN TOILET ROOMS, SHOWER ROOMS, LOCKER ROOMS, GARAGES, SERVICE BAYS, ROOFTOPS, OUTDOOR LOCATIONS, MECHANICAL ROOMS, WITHIN 6 FEET OF A SINK, AT ELECTRIC WATER COOLERS, OR OTHER WET LOCATIONS SHALL BE PROVIDED WITH GFCI PROTECTION PER NEC ARTICLE 210 AND NEC SECTION 422.5. PROVIDE GFCI RECEPTACLES IN ELEVATOR PITS, HOISTWAYS, MACHINE ROOMS, CONTROL SPACES, AND CONTROL ROOMS PER NEC SECTION 620.85. ADDITIONAL GFCI PROTECTION TO BE PROVIDED AS INDICATED. WHERE GFCI DEVICES ARE REQUIRED AND/OR SHOWN BUT ARE NOT ACCESSIBLE WHEN EQUIPMENT IS INSTALLED, I.E. VENDING MACHINES, ETC., PROVIDE BLANK FACE GFCI DEVICE AND COVERPLATE AHEAD OF INACCESSIBLE RECEPTACLES. MOUNT ADJACENT TO EQUIPMENT AT SWITCH HEIGHT UNLESS OTHERWISE SHOWN.

# **ONE-LINE DIAGRAM NOTES:**

- 1. PANELBOARDS INDICATED ON ONE-LINE DIAGRAMS DO NOT SHOW ALL BRANCH CIRCUITS. REFER TO PANELBOARD SCHEDULE(S).
- 2. EQUIPMENT SHOWN SHADED REPRESENTS STANDBY POWERED SERVICES. PROVIDE CONTINUOUS #10 AWG INSULATED COPPER CONDUCTOR FOR BONDING THE EQUIPMENT GROUNDING TERMINAL BUSSES OF THE NORMAL AND ESSENTIAL BRANCH CIRCUIT PANELBOARDS SERVING THE SAME INDIVIDUAL
- PATIENT VICINITY. 4. ADJUSTABLE BREAKERS SHALL BE SOLID STATE TRIP. CIRCUIT BREAKER TRIP FUNCTIONS: L=LONG TIME
- S=SHORT TIME I=INSTANTANEOUS G=GROUND FAULT
- Z=ZONE SELECT INTERLOCK A=GROUND FAULT ALARM ONLY
- 5. EXISTING ONE-LINE DIAGRAM TAKEN FROM OWNER FURNISHED DRAWINGS. EXISTING INFORMATION SHOWN OTHER THAN LOCATIONS IMPACTED BY NEW WORK HAS NOT BEEN VERIFIED.
- 6. COORDINATE MOUNTING, CONDUIT, WIRE, AND OCPD SIZE FOR SPD'S WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

# GENERAL NOTES:

6

- 1. FOR REMODELING, WORK INCLUDED IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
- 2. PROTECT STRUCTURE AND OWNER EQUIPMENT FROM DAMAGE. IMMEDIATELY REPLACE OR REPAIR, TO ORIGINAL CONDITION, DAMAGE CAUSED BY THE CONTRACTOR WHETHER EQUIPMENT APPEARS TO BE CURRENTLY IN USE OR NOT, UNLESS WRITTEN AUTHORIZATION FROM THE OWNER INDICATED OTHERWISE. PREPARE LISTING OF ALL EXISTING DAMAGED ITEMS AND SUBMIT TO OWNER PRIOR TO BEGINNING WORK.
- 3. INSTALL CONDUIT CONCEALED IN FINISHED AREAS UNLESS OTHERWISE NOTED. PAINT EXPOSED CONDUIT TO MATCH EXISTING FINISHES WITHIN THE SURROUNDING AREA.
- 4. EXISTING INFORMATION SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM OWNER FURNISHED DRAWINGS AND/OR LIMITED FIELD OBSERVATIONS. CATOR, RUMA & ASSOCIATES IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY INFORMATION OR THE ADEQUACY, SAFETY AND CONFORMANCE TO CURRENT PREVAILING CODES OF ANY WORK SHOWN AS EXISTING ON THESE DRAWINGS.
- 5. PROVIDE SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER, HOMERUN AND BRANCH CIRCUITS.

# **DEMOLITION NOTES:**

- 1. UNLESS NOTED OTHERWISE, BOLD ITEMS INDICATE EQUIPMENT, DEVICES, ETC. TO BE REMOVED. SEE SPECIFICATION SECTION 260500 FOR REMODEL/DEMOLITION DETAILED REQUIREMENTS.
- 2. DEMOLITION DRAWINGS MAY NOT SHOW EVERY ITEM TO BE DEMOLISHED. CONTRACTOR SHALL VISIT SITE TO DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENTS PRIOR TO QUOTATION. NO EXTRAS WILL BE ALLOWED FOR WORK REQUIRED TO ACHIEVE THE END RESULT AS INDICATED BY THE CONTRACT DOCUMENTS. REWORK EXISTING TERMINATIONS, CONNECTIONS, CONDUIT, WIRING, ETC. TO ACCEPT NEW WORK. MAINTAIN CIRCUIT CONTINUITY TO EXISTING CIRCUITS AND DEVICES TO REMAIN OR REMODEL/DEMOLITION DETAILED REQUIREMENTS TO BE RELOCATED. PRIOR TO COMMENCEMENT OF ANY DEMO WORK, CONFIRM EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
- 3. ALL ITEMS IDENTIFIED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING ALL WIRING AND EXPOSED CONDUIT AND CONDUIT SUPPORTS BACK TO POINT OF ORIGIN OR NEXT DEVICE TO REMAIN. REMOVED ITEMS SHALL BE TURNED OVER TO THE OWNER, UNLESS NOTED OTHERWISE, AND STORED IN THE AREA DESIGNATED BY THE OWNER. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL ITEMS THE OWNER CHOOSES NOT TO ACCEPT.
- 4. REUSE EXISTING CONDUIT WHERE CURRENT NEC AND LOCAL CODE REQUIREMENTS ARE MAINTAINED. PROVIDE NEW CONDUIT AND WIRE FOR NEW INSTALLATIONS AND EXTENSION OF EXISTING INSTALLATIONS. REUSE EXISTING CONDUIT IN PLACE, DO NOT REINSTALL EXISTING CONDUIT. PROVIDE LABELING PER SPECIFICATIONS FOR REUSED CONDUIT.
- WHERE EXISTING DEVICES, SWITCHES, MOTOR CONNECTIONS, ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, WALLS SHALL BE PATCHED TO MATCH ORIGINAL FINISH. BLANK COVERPLATES OVER EXISTING BOXES ARE NOT ACCEPTABLE, UNLESS NOTED OTHERWISE.

# **ROUGH-IN AND PATHWAY NOTES**

- 1. PROVIDE 4-11/16" x 4-11/16" x 2-7/8" OUTLET BOX AND SINGLE GANG MUD RING FOR ALL TELE/DATA OUTLETS. ROUTE 1" CONDUIT FROM EACH OUTLET TO ABOVE ACCESSIBLE CEILING UNLESS OTHERWISE NOTED. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END. KEEP ALL EXPOSED CONDUITS TIGHT TO STRUCTURE.
- 2. PROVIDE 4-11/16" x 4-11/16" x 2-7/8" OUTLET BOX AND SINGLE GANG MUD RING FOR ALL SECURITY, CCTV AND ACCESS CONTROL, ROUTE 3/4" CONDUIT FROM EACH OUTLET TO ABOVE ACCESSIBLE CEILING UNLESS OTHERWISE NOTED. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END. KEEP ALL EXPOSED CONDUITS TIGHT TO STRUCTURE.
- 3. CONDUIT DEDICATED FOR TECHNOLOGY SYSTEMS SHALL BE INSTALLED IN EMT UNLESS OTHERWISE NOTED. FLEX CONDUIT SHALL NOT BE USED WITHOUT PRIOR APPROVAL FROM THE ENGINEER OR OWNER.
- 4. CONDUIT DEDICATED FOR TECHNOLOGY SYSTEMS SHALL NOT EXCEED 100' OR CONTAIN MORE THAN 180 DEGREES OF TOTAL BENDS WITHOUT UTILIZING APPROPRIATELY SIZED PULL BOXES.
- 5. MINIMUM BEND RADII FOR 2" CONDUIT OR SMALLER SHALL BE 6 TIMES THE OUTSIDE DIAMETER OF THE CONDUIT. BEND RADII FOR CONDUIT LARGER THAN 2" SHALL BE 10 TIMES THE OUTSIDE DIAMETER OF THE CONDUIT. L-BENDS SHALL NOT BE USED.
- 6. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY ADVERSE FIELD CONDITIONS PRIOR TO PERFORMING ANY WORK.

# TECHNOLOGY PLAN NOTES:

- 1. PROVIDE 8' SERVICE LOOP AT STATION END OF ALL CABLE RUNS. 2. HOMERUN ALL DATA, AND ACCESS CONTROL CABLES TO DESIGNATED CONTROL PANELS, PATCH PANELS, OR WALL FIELDS IN NEAREST TELECOMMUNICATION ROOM LOCATED IN THE SAME ZONE UNLESS
- OTHERWISE NOTED. 3. PROVIDE J-HOOK TYPE CABLE SUPPORTS EVERY 4'-0" TO 5'-0" IN OPEN OR ACCESSIBLE CEILING SPACE AS REQUIRED TO SUPPORT CABLES IN ROUTE TO CABLE TRAY OR CONDUIT PATHWAY TO TELECOMMUNICATIONS ROOM. ROUTE CABLE SUPPORTS SUCH THAT CABLE VISIBILITY WILL BE MINIMIZED IN ANY OPEN CEILING AREAS.
- 4. COORDINATE AND VERIFY EXACT MOUNTING LOCATIONS OF WALL, CEILING, AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS AND ANY FURNITURE OR SPECIALTY EQUIPMENT SUPPLIER DRAWINGS PRIOR TO ROUGH-IN.

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![](_page_11_Figure_145.jpeg)

![](_page_12_Figure_0.jpeg)

CORRIDOR 110

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RESTROOM

STAFF LOUNGE 115

# SCALE: 1/8" = 1'-0"

|                       |                         | Panel I  | _A3                            |         |         | EXIS     | STING  |                             |                   |         |          |   |            |            |            |               |      |   |  |
|-----------------------|-------------------------|--|--------------------------------|---------|---------|----------|--------|-----------------------------|-------------------|---------|----------|---|------------|------------|------------|---------------|------|---|--|
| <b>Circu</b><br>1. PR | <b>it Note</b><br>OVIDE | Location:<br>Supply From:<br>Mounting: S<br>Enclosure: T<br>s:<br>CIRCUIT BREAKER IN SP/ | Surface<br>Type 1<br>ACE TO MA | TCH E   | XISTIN  | IG.      |        | Voltage:<br>Phase:<br>Wire: | 480/277<br>3<br>4 | Wye     |          | A.I.C. Rating: 10,000<br>Mains Type: MCB<br>Bus Rating: 200 A<br>MCB Rating: 70 A |            |            |            |               |      |   |  |
| Note                  | Circ                    | Load   | Туре                           | Trip    | Ро      |          | 4      | E                           | 3                 |         | <u> </u> | Po  | Trip       | Type       |            | Load          | Circ | N |  |
|                       | 1                       | WEST CAFETERIA   |                                | 20 A    | 1       | 0 VA     | 0 VA   |                             |                   |         |          | 1   | 20 A       |            | OFFICE     | N HALL        | 2    |   |  |
|                       | 3                       | EAST CAFETERIA   |                                | 20 A    | 1       |          |        | 0 VA                        | 0 VA              |         |          | 1   | 20 A       |            | OFFICE     | S HALL        | 4    |   |  |
|                       | 5                       | RM 10,11   |                                | 20 A    | 1       |          |        |                             |                   | 0 VA    | 0 VA     | 1   | 20 A       |            | FACULIT    | Y LOUNGE      | 6    |   |  |
|                       | 7                       | RM 13, BR1, E CAFE, RR   |                                | 20 A    | 1       | 0 VA     | 0 VA   |                             |                   |         |          | 1   | 20 A       |            | OFFICE     | PRICIPAL      | 8    |   |  |
|                       | 9                       | MAIN CORR LIGHTS   |                                | 20 A    | 1       |          |        | 0 VA                        | 0 VA              |         |          | 1   | 20 A       |            | LIGHTS     | LIBRARY       | 10   |   |  |
|                       | 11                      | LIGHTS CORR  |                                | 20 A    | 1       |          |        |                             |                   | 0 VA    | 0 VA     | 1   | 20 A       |            | LIGHTS     | SW LIBRARY    | 12   |   |  |
|                       | 13                      | LIGHTS ENTRY   |                                | 20 A    | 1       | 0 VA     | 0 VA   |                             |                   |         |          | 1   | 20 A       |            | LIGHTS     | SE LIBRARY    | 14   |   |  |
|                       | 15                      | LIGHTS KITCHEN   |                                | 20 A    | 1       |          |        | 0 VA                        | 0 VA              |         |          | 1   | 20 A       |            | LIGHTS     | ROOM 17       | 16   |   |  |
|                       | 17                      | LIGHTS OUTSIDE   |                                | 20 A    | 1       |          |        |                             |                   | 0 VA    | 0 VA     | 1   | 20 A       |            | LIGHTS     |               | 18   |   |  |
|                       | 19                      | LIGHTS OUTSIDE   |                                | 20 A    | 1       | 0 VA     | 0 VA   |                             |                   |         |          | 1   | 20 A       |            | LIGHTS     |               | 20   |   |  |
|                       | 21                      | LIGHTS OUTSIDE   |                                | 20 A    | 1       |          |        | 0 VA                        | 0 VA              |         |          | 1   | 20 A       |            | LIGHTS     | CAF. UNDR MEZ | 22   |   |  |
|                       | 23                      | LIGHTS OUTSIDE   |                                | 20 A    | 1       |          |        |                             |                   | 0 VA    | 0 VA     | 1   | 20 A       |            | EXIT LIG   | HTS           | 24   |   |  |
|                       | 25                      | LIGHTS OUTSIDE   |                                | 20 A    | 1       | 0 VA     | 0 VA   |                             |                   |         |          | 1   | 20 A       |            | EXIT LIG   | HTS           | 26   |   |  |
|                       | 27                      | OUTSIDE POLE LIGHTS  |                                | 20 A    | 1       |          |        | 0 VA                        | 0 VA              |         |          | 1   | 20 A       |            | SPARE      |               | 28   |   |  |
|                       | 29                      | OUTSIDE POLE LIGHTS  |                                | 20 A    | 1       |          |        |                             |                   | 0 VA    | 0 VA     | 1   | 20 A       |            | FIRE PA    | NEL           | 30   |   |  |
|                       | 31                      | EUH-L1   |                                | 20 A    | 1       | 0 VA     | 0 VA   |                             |                   |         |          |   |            |            |            |               | 32   |   |  |
|                       | 33                      | EUH-L2   |                                | 20 A    | 1       |          |        | 0 VA                        | 0 VA              |         |          | 3   | 125 A      | Spare      | PANEL F    | PA3 VIA XFMR  | 34   |   |  |
|                       | 35                      | SPARE  |                                | 20 A    | 1       |          |        |                             |                   | 0 VA    | 0 VA     |   |            |            |            |               | 36   |   |  |
|                       | 37                      |  | Spara: D.                      |         |         | 3376 VA  | 0 VA   |                             |                   |         |          | 2   | 50 A       |            | SPARE      |               | 38   |   |  |
| 1                     | 39                      | PA4 VIA 45KVA XFMR   | G G                            | 70 A    | 3       |          |        | 2770 VA                     | 0 VA              |         |          | 2   | 50 A       |            |            |               | 40   |   |  |
|                       | 41                      |  |                                |         |         |          |        |                             |                   | 1660 VA |          | 1   |            |            | SPACE      |               | 42   |   |  |
|                       |                         |  |                                | Total   | Load:   | 3370     | 6 VA   | 2770                        | ) VA              | 1660    | ) VA     |   |            |            |            |               |      |   |  |
|                       |                         |  |                                | Total A | mps:    | 13       | 8 A    | 11                          | А                 | 6       | A        |   |            |            |            |               |      |   |  |
|                       |                         |  | Pha                            | ase Bal | ance:   | 21       | % A-B  | 77                          | % B-C             | 114     | % C-A    |   |            |            |            |               |      |   |  |
| .oad                  | а Туре                  |  |                                |         | Connect | ted Load | Demand | I Factor                    | Deman             | d Load  |          |   |            | Panel T    | otals      |               |      |   |  |
| L                     | Lighting                |  |                                |         | 0       | VA       | 0.0    | 0%                          | 0                 | VA      |          |   | Pow        | er Factor: | 1          |               |      |   |  |
| R                     | Receptacle              |  |                                |         | 1980    | AV C     | 100.   | 00%                         | 1980              | AV C    |          |   |            |            |            |               |      |   |  |
| М                     | Motor                   |  |                                | 0       | VA      | 0.0      | 0%     | 0                           | VA                |         | Tot      | al Connec   | ted Load:  | 7806 VA    |            |               |      |   |  |
| С                     | Continuous              |  |                                | 0 \     | VA      | 0.0      | 0%     | 0                           | VA                |         | Total    | Connecte  | d Current: | 9 A        |            |               |      |   |  |
| G                     | Gener                   | al   |                                |         |         | 5820     | 6 VA   | 100.                        | 00%               | 5820    | 6 VA     |   |            |            |            |               |      |   |  |
| K                     | Kitche                  | n  |                                |         |         | 0 \      | VA     | 0.0                         | 0%                | 0       | VA       |   | T          | otal Dema  | and Load:  | 7806 VA       |      |   |  |
| E                     | Existir                 | ng   |                                |         |         | 0 \      | VA     | 0.0                         | 0%                | 0       | VA       |   | Tot        | al Demano  | d Current: | 9 A           |      |   |  |
| 0                     | Other                   |  |                                |         |         | 0.00 VA  |        |                             | 0.00% 0 VA        |         |          |   |            |            |            |               |      |   |  |

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# FEEDER SCHEDULE

KEY

NOTE: CONDUCTORS XFMR SEE TRANSFORMER SCHEDULE SEE TRANSFORMER SCHEDULE

# TRANSFORMER SCHEDULE

**REMARKS**: 1. OVERCURRENT PROTECTION IS SIZED PER NEC 450.3. 2. ALL CONDUCTORS ARE COPPER. SEE PLANS FOR INCREASED CONDUCTOR SIZES DUE TO VOLTAGE DROP, ETC.

3. SECONDARY BONDING AND GROUNDING CONDUCTORS ARE SIZED PER NEC 250.66 AND 250.102. 4. DIMENSIONS, WEIGHTS & BTUH OUTPUT SHOWN ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY FROM MANUFACTURER TO MANUFACTURER. 5. FOR K-RATED TRANSFORMERS, PROVIDE PARALLEL NEUTRAL CONDUCTORS LUGS AT TRANSFORMERS, LOW VOLTAGE PANELBOARD, DISCONNECTS AND/OR LOAD. 6. CONDUIT 40% FILL RATIO IS BASED ON EMT.

![](_page_12_Figure_11.jpeg)

# **ELECTRICAL ONE-LINE DIAGRAM**

**KEYNOTES** E2 PROVIDE 3-PHASE DIGITAL RECORDING METER AT LOCATION INDICATED FOR A PERIOD OF 30 DAYS PRIOR TO SUBMITTING FOR PERMIT TO VERIFY EXISTING LOAD. METER SHALL RECORD VOLTAGE AMPERAGE, KVA AND POWER FACTOR FOR EACH PHASE AND SUM OF THE PHASES. THE METER SHALL CONTINUALLY AVERAGE THE POWER DEMAND OVER MAXIMUM 15 MINUTE INTERVALS AS REQUIRED BY NEC 220.87. COMPILE A METERING SUMMARY REPORT AND DELIVER RESULTS TO ENGINEER AFTER 7 DAYS AND AFTER 30 DAYS. VERIFY EXISTING LOADS AT AND DOWNSTREAM OF THE METERING LOCATION AND PROVIDE LIST TO ENGINEER OF WHAT LOADS ARE NOT ON DURING THE 30 DAY METERING AND THE REASON WHY. ORGANIZE LIST BY EQUIPMENT NAME. IF ANY LOADS HAVE BEEN REMOVED OR PERMANENTLY ABANDONED, TURN CIRCUIT BREAKER OFF AND RELABEL AS SPARE.

# LUMINAIRE SCHEDULE

COMMON NOTES: B. REFER TO LIGHTING SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. C. PROVIDE UNIT PRICING FOR ALL LUMINAIRES BY TYPE AND SUBMIT WITH BID FORM.

SPECIFIC REMARKS:

KEY

D. PROVIDE AN EMERGENCY BALLAST TEST SWITCH FOR RECESSED DOWNLIGHTS ON CEILING ADJACENT TO LUMINAIRE. E. PROVIDE FLICKER FREE LED DRIVERS MEETING IEEE 1789.

SPECIFIC REMARKS: 1. VERIFY MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATION.

|      |   | LAMP  |        |       | BALLAST/DRIVER |         |       |  |                                    |                         |          |         |
|------|---|-------|--------|-------|----------------|---------|-------|--|------------------------------------|-------------------------|----------|---------|
| TYPE | DESCRIPTION   | COLOR | LUMENS | TYPE  | DIM LEVEL      | VOLTAGE | LOAD  | MANUFACTURER   | CATALOG SERIES                     | FINISH                  | MOUNTING | REMARKS |
| D1   | 6" DIAMETER LED RECESSED DOWNLIGHT                          | 3500K | 2000   | 0-10V | 10%            | 277 V   | 23 VA | LITHONIA<br>COOPER LIGHTING SOLUTIONS<br>OR APPROVED EQUAL | LDN6<br>HC6<br>OR APPROVED EQUAL   | CLEAR,<br>SEMI-SPECULAR | RECESSED |         |
| T1   | 2X4 RECESSED FLAT PANEL                                     | 3500K | 5000   | 0-10V | 10%            | 277 V   | 40 VA | LITHONIA<br>COOPER LIGHTING SOLUTIONS<br>OR APPROVED EQUAL | CPX<br>24CGTS<br>OR APPROVED EQUAL | WHITE                   | RECESSED |         |
| T1E  | SAME AS T1 WITH EMERGENCY SELF-DIAGNOSTIC<br>BATTERY BACKUP | 3500K | 5000   | 0-10V | 10%            | 277 V   | 40 VA | LITHONIA<br>COOPER LIGHTING SOLUTIONS<br>OR APPROVED EQUAL | CPX<br>24CGTS<br>OR APPROVED EQUAL | WHITE                   | RECESSED |         |
| W1   | 2' BATHROOM VANITY  | 3500K | 2000   | 0-10V | 10%            | 277 V   | 21 VA | BROWNLEE<br>SCOTT ARCH LIGHTING<br>OR APPROVED EQUAL       | 5178<br>S3951<br>OR APPROVED EQUAL | BRUSHED<br>NICKEL       | WALL     | 1       |

![](_page_12_Picture_19.jpeg)

|       |            | Panel I  | PA4                       |         |          | NEV    | V                           |                   |        |  |        |         |           |            |            |            |        |      |
|-------|------------|--|---------------------------|---------|----------|--------|-----------------------------|-------------------|--------|--|--------|---------|-----------|------------|------------|------------|--------|------|
| Circu | it Note    | Location:<br>Supply From: T<br>Mounting: S<br>Enclosure: T | -PA4<br>Surface<br>Type 1 |         |          |        | Voltage:<br>Phase:<br>Wire: | 120/208<br>3<br>4 | Wye    | A.I.C. Rating: 10,000<br>Mains Type: MCB<br>Bus Rating: 125 A<br>MCB Rating: 125 A |        |         |           |            |            |            |        |      |
| Circu | it note    | S:   |                           |         |          |        |                             |                   |        |  |        |         |           |            |            |            |        |      |
| Note  | Circ       | Load   | Type                      | Trip Po |          |        | 4                           |                   | 3      |  | C      | Po Trin |           | Type       |            | Load       | Circ I | Vote |
|       | 1          | R-OFFICE 113   | R                         | 20 A    | 1        | 900 VA | 1176 VA                     |                   |        |  |        | 1       | 20 A      | G          | GARBAG     | E DISPOSAL | 2      |      |
|       | 3          | R-STAFF LNGE 115/ RR                                       | R                         | 20 A    | 1        |        |                             | 720 VA            | 750 VA |  |        | 1       | 20 A      | G          | REFRIG     | ERATOR     | 4      |      |
|       | 5          | VENDING MACHINE  | G                         | 20 A    | 1        |        |                             |                   |        | 500 VA   | 800 VA | 1       | 20 A      | G          | MICROW     | /AVE       | 6      |      |
|       | 7          | VENDING MACHINE  | G                         | 20 A    | 1        | 500 VA | 800 VA                      |                   |        |  |        | 1       | 20 A      | G          | MICROW     | /AVE       | 8      |      |
|       | 9          | VENDING MACHINE  | G                         | 20 A    | 1        |        |                             | 500 VA            | 800 VA |  |        | 1       | 20 A      | G          | MICROW     | /AVE       | 10     |      |
|       | 11         | R-STAFF LNGE 115 AC  | R                         | 20 A    | 1        |        |                             |                   |        | 360 VA   | 0 VA   | 1       | 20 A      |            | SPARE      |            | 12     |      |
|       | 13         | SPACE  |                           |         | 1        |        | 0 VA                        |                   |        |  |        | 1       | 20 A      |            | SPARE      |            | 14     |      |
|       | 15         | SPACE  |                           |         | 1        |        |                             |                   | 0 VA   |  |        | 1       | 20 A      |            | SPARE      |            | 16     |      |
|       | 17         | SPACE  |                           |         | 1        |        |                             |                   |        |  | 0 VA   | 1       | 20 A      |            | SPARE      |            | 18     |      |
|       | 19         | SPACE  |                           |         | 1        |        | 0 VA                        |                   |        |  |        | 1       | 20 A      |            | SPARE      |            | 20     |      |
|       | 21         | SPACE  |                           |         | 1        |        |                             |                   | 0 VA   |  |        | 1       | 20 A      |            | SPARE      |            | 22     |      |
|       | 23         | SPACE  |                           |         | 1        |        |                             |                   |        |  | 0 VA   | 1       | 20 A      |            | SPARE      |            | 24     |      |
|       | 25         | SPACE  |                           |         | 1        |        | 0 VA                        |                   |        |  |        | 1       | 20 A      |            | SPARE      |            | 26     |      |
|       | 27         | SPACE  |                           |         | 1        |        |                             |                   | 0 VA   |  |        | 1       | 20 A      |            | SPARE      |            | 28     |      |
|       | 29         | SPACE  |                           |         | 1        |        |                             |                   |        |  | 0 VA   | 1       | 20 A      |            | SPARE      |            | 30     |      |
|       | 31         | SPACE  |                           |         | 1        |        | 0 VA                        |                   |        |  |        | 1       | 20 A      |            | SPARE      |            | 32     |      |
|       | 33         | SPACE  |                           |         | 1        |        |                             |                   | 0 VA   |  |        | 1       | 20 A      |            | SPARE      |            | 34     |      |
|       | 35         | SPACE  |                           |         | 1        |        |                             |                   |        |  | 0 VA   | 1       | 20 A      |            | SPARE      |            | 36     |      |
|       | 37         | SPACE  |                           |         | 1        |        | 0 VA                        |                   |        |  |        | 1       | 20 A      |            | SPARE      |            | 38     |      |
|       | 39         | SPACE  |                           |         | 1        |        |                             |                   | 0 VA   |  |        | 1       | 20 A      |            | SPARE      |            | 40     |      |
|       | 41         | SPACE  |                           |         | 1        |        |                             |                   |        |  | 0 VA   | 1       | 20 A      |            | SPARE      |            | 42     |      |
|       |            |  |                           | Total   | Load:    | 337    | 6 VA                        | 277               | O VA   | 166  | 0 VA   |         |           |            |            |            |        |      |
|       |            |  |                           | Total A | Amps:    | 30     | ) A                         | 25                | δA     | 14   | ΙA     |         |           |            |            |            |        |      |
|       |            |  | Ph                        | ase Bal | ance:    | 21     | % A-B                       | 77                | % B-C  | 114  | % C-A  |         |           |            |            |            |        |      |
| Load  | Туре       |  |                           | Connec  | ted Load | Deman  | d Factor                    | Deman             | d Load |  |        |         | Panel T   | otals      |            |            |        |      |
| L     | Lighting   |  |                           |         |          | 0      | VA                          | 0.0               | 0%     | 0 '  | VA     |         |           | Pow        | er Factor: | 1          |        |      |
| R     | Receptacle |  |                           |         |          | 198    | O VA                        | 100.              | 00%    | 198  | 0 VA   |         |           |            |            |            |        |      |
| М     | Motor      |  |                           |         |          | 0      | VA                          | 0.0               | 0%     | 0 '  | VA     |         | Tot       | al Connec  | ted Load:  | 7806 VA    |        |      |
| С     | Continuous |  |                           |         | 0        | VA     | 0.0                         | 0%                | 0 '    | VA   |        | Total ( | Connected | d Current: | 22 A       |            |        |      |
| G     | General    |  |                           |         |          | 582    | 6 VA                        | 100.              | 00%    | 582  | 6 VA   |         |           |            |            |            |        |      |
| K     | Kitche     | n  |                           |         |          | 0      | VA                          | 0.0               | 0%     | 0  | VA     |         | Т         | otal Dema  | and Load:  | 7806 VA    |        |      |
| Е     | Existir    | ng   |                           |         |          | 0      | VA                          | 0.0               | 0%     | 0  | VA     |         | Tot       | al Demano  | d Current: | 22 A       |        |      |
| ~     | ) Other    |  |                           |         |          | 0 VA   |                             | 0.0               | 0%     | 0 VA   |        |         |           |            |            |            |        |      |

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|   |           | SECONDARY  | ,                |       | GEC        |    | D     | IMENSION | S    |        |           |      |
|---|-----------|------------|------------------|-------|------------|----|-------|----------|------|--------|-----------|------|
|   | SWITCH    | FUSE       | CONDUCTORS       | C"    | CONDUCTORS | C" | HIGH  | WIDE     | DEEP | WEIGHT | BTUH OTPT | NOTE |
| Р | 200 A 3 P | FRN-R- 150 | 4 # 1/0 ,1 # 6 G | 1-1/2 | 1 # 6 3/-  | 4  | 39.25 | 26.13    | 20   | 480    | 7425      |      |
|   |           |            |                  |       |            |    |       |          |      |        |           |      |

A. NOT ALL SPACE NAMES ARE LISTED FOR EACH LIGHTING CONTROL TYPE. REFER TO PLANS FOR ALL SPACES TO BE CONTROLLED. B. SPACES MAY CONTAIN MULTIPLE ZONES OF CONTROL. REFER TO PLANS FOR QUANTITY OF ZONES, SWITCHES, ETC.

C. PROVIDE THE QUANTITY OF SENSORS AS REQUIRED FOR FULL COVERAGE OF THE SPACE. DEVICES SHOWN ON PLAN ARE FOR DESIGN INTENT ONLY AND DO NOT NECESSARILY REFLECT THE EXACT QUANTITY REQUIRED FOR FULL COVERAGE. D. WHERE A SINGLE SWITCH/DIMMER IS DENOTED WITH MULTIPLE SWITCH LEGS, DESIGN INTENT IS A SINGLE-GANG DEVICE WITH MULTIPLE-MODE CONTROL.

E. ALL NON-NETWORKED SPACES WITH SENSORS SHALL BE PROVIDED WITH MANUAL 'OFF' MEANS. F. WHERE NETWORKED SPACES HAVE NO MANUAL 'OFF' MEANS WITHIN SPACE, PROVIDE LABELED MEANS OF SHUTOFF AT CONTROLLER LOCATION FOR NO MORE

ON / OFF M = MANUAL (SWITCH), A = AUTOMATIC (SENSOR), T = TIME SCHEDULE, P = EXTERIOR PHOTOCELL, #% = CONTROL TO #% LIGHT LEVEL

OCC / VAC DT = DUAL TECHNOLOGY, PIR = PASSIVE INFRARED, CLG = CEILING MOUNT, WALL = WALL CORNER MOUNT, SW = INTEGRAL TO WALL SWITCH CALIBRATE BOTTOM LIMIT OF DAYLIGHT SENSOR TO DENOTED FOOTCANDLE LEVEL AT HEIGHT LISTED

INTERFACE AV = ALLOW OVERRIDE BY A/V SYSTEM, BAS = COMMUNICATE OCCUPIED/UNOCCUPIED STATE TO BAS, VAV = TIE SENSOR RELAY DIRECTLY TO VAV BOX IN ROOM NETWORK X = CONNECT ZONE TO CENTRAL LIGHTING CONTROL SYSTEM

EMERGENCY X = PROVIDE AUTOMATIC LOAD CONTROL RELAYS (ALCR) FOR LUMINAIRES ON EMERGENCY CIRCUIT, PROVIDE TEST SWITCH IF NOT INTEGRAL TO RELAY

|    |     |         | OCCUPAN | CY / VACANC | Y SENSOR     | DAYLIGH              | T SENSOR                 |           |         |           |         |
|----|-----|---------|---------|-------------|--------------|----------------------|--------------------------|-----------|---------|-----------|---------|
| ON | OFF | CONTROL | TECH    | MOUNT       | DELAY (MIN.) | TARGET<br>LEVEL (FC) | MEASURED<br>HEIGHT (IN.) | INTERFACE | NETWORK | EMERGENCY | REMARKS |
| А  | А   |         | DT      | SW          | 20           |                      |                          |           |         |           |         |
| М  | А   | 0-10V   | DT      | CLG         | 5            |                      |                          |           |         |           |         |
| М  | A   | 0-10V   | DT      | CLG         | 20           |                      |                          |           |         |           |         |

# GENERAL EQUIPMENT SCHEDULE

A. PRIOR TO WORK, VERIFY ELECTRICAL REQUIREMENTS (VOLTAGE, AMPERAGE, RECOMMENDED OCPD, CONDUCTORS, AND DISCONNECT) FOR EACH PIECE OF EQUIPMENT. B. PRIOR TO WORK, VERIFY EXACT LOCATION FOR EACH PIECE OF EQUIPMENT WITH ARCHITECT AND/OR OWNER.

|                  |     |     |        | EQ LOAD |            |      | FEEDERS |         |         | PROTECTION |      |         |
|------------------|-----|-----|--------|---------|------------|------|---------|---------|---------|------------|------|---------|
| ITEM             | HP  | FLA | LOAD   | (VA)    | VOLTAGE    | WIRE | GROUND  | CONDUIT | BREAKER | DISCONNECT | FUSE | REMARKS |
| GARBAGE DISPOSAL | 0.5 | 0 A | 0 VA   | 1176 VA | 120 V/ 1ph | 2#12 | #12G    | 3/4"    | 20 A    |            |      |         |
| MICROWAVE        | 0   | 0 A | 800 VA | 800 VA  | 120 V/ 1ph | 2#12 | #12G    | 3/4"    | 20 A    |            |      |         |
| REFRIGERATOR     | 0   | 0 A | 750 VA | 750 VA  | 120 V/ 1ph | 2#12 | #12G    | 3/4"    | 20 A    |            |      |         |
| VENDING MACHINE  | 0   | 0 A | 500 VA | 500 VA  | 120 V/ 1ph | 2#12 | #12G    | 3/4"    | 20 A    |            |      |         |

### A. CATALOG NUMBER REFERS TO FIRST NAME LISTED UNDER MANUFACTURER PER LUMINAIRE TYPE. REMAINING MANUFACTURERS LISTED ARE CONSIDERED TO BE EQUIVALENT PRODUCTS FOR THIS PROJECT AND SHALL MEET ALL CRITERIA LISTED INCLUDING THAT CALLED FOR BY THE SPECIFIC LUMINAIRE CATALOG NUMBER. CATALOG NUMBERS DO NOT NECESSARILY REPRESENT COMPLETE CATALOG NUMBERS. ALL ITEMS LISTED IN THE DESCRIPTION SHALL BE PROVIDED.

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![](_page_12_Figure_39.jpeg)

![](_page_13_Figure_0.jpeg)

![](_page_13_Figure_2.jpeg)

4

![](_page_13_Figure_4.jpeg)

![](_page_13_Figure_5.jpeg)

### **GENERAL NOTES:**

1. EXISTING LIGHTING CIRCUITRY TO BE MAINTAINED AND EXTENDED TO NEW FIXTURES.

![](_page_13_Picture_10.jpeg)

| <b>CATOR RUMA</b><br>& ASSOCIATES, CO.<br>420 South Orchard Street, Boise, ID 83705<br>(208) 343-3663 • www.catorruma.com  |
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| CATCOR IRUMA<br>& ASSOCIATES, COL         ASSOCIATES, COL         ADSOUTH Orchard Street, Boise, ID 83705         (28) 343-3663 • www.catorruma.com <b>CATCOR MED ARCHITES</b> , ID 83705 <b>MENDE DE ARCHITES MENDE DE ARCHITES ARCHITES ORAGE 7, RESTROOM REMODEL AT SO ELIZABETH BLVD STROOM REMODEL STROOM REMODEL</b> |
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![](_page_14_Figure_0.jpeg)

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![](_page_14_Figure_4.jpeg)