

# **1425 UPGRADE (Q1)** 1425 North Quincy Street

# **BID SET FEBRUARY 20, 2020**

# **ARLINGTON COUNTY VIRGINIA**

13

| + PARKER ARCHITECTS               | ARCHITECTS   |
|-----------------------------------|--------------|
| IS GROUP                          | CIVIL ENGINE |
| LAN CONSULTING ENGINEERS          | STRUCTURA    |
| <b>IITED CONSULTING ENGINEERS</b> | MEP ENGINE   |

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LIST OF DRAWINGS

| CIVIL  |   |
|--|---|
| PHASE 1A   |   |
| C001<br>C100<br>C200<br>C300<br>C400<br>C401<br>C500                         | COVER SHEET<br>GENERAL NOTES AND DETAILS<br>EXISTING CONDITIONS AND DEMOLITION PLAN<br>SITE LAYOUT- NEW WORK<br>GRADING PLAN<br>DETAILED GRADING PLAN<br>STORM PROFILE  |
| ARCHITEC <sup>-</sup>  | TURAL   |
| A001<br>A003<br>A101<br>A102<br>A201<br>A401<br>A501<br>A502<br>A503<br>A701 | CODE STUDY - FIRST FLOOR - PHASE 1<br>ENERGY COVER SHEET<br>FIRST FLOOR PLAN - PHASE 1<br>ROOF PLAN PHASE 1<br>BUILDING ELEVATIONS - PHASE 1<br>REFLECTED CEILING PLAN - PHASE 1<br>WALL SECTIONS - PHASE 1<br>EXTERIOR DETAILS - PHASE 1<br>ENLARGED DETAILS - PHASE 1<br>DOOR AND FINISH SCHEDULES, ENLARGED<br>PLANS AND DETAILS |
| AD101<br>AD501   | ARCHITECTURAL DEMOLITION - PHASE 1<br>DEMOLITION DETAILS  |
| STRUCTUF   | RAL   |
| S001<br>S002<br>S101<br>S301   | DESIGN NOTES<br>DESIGN NOTES<br>PARTIAL WALL FRAMING PLANS AND ELEVATIONS<br>SECTIONS AND DETAILS   |
| MECHANIC   | AL  |
| M001<br>M101<br>M102<br>M103<br>M501   | MECHANICAL COVER SHEET<br>MECHANICAL FIRST LEVEL DEMOLITION PLAN<br>MECHANICAL ROOF LEVEL DEMOLITION PLAN<br>MECHANICAL FIRST LEVEL NEW WORK PLAN<br>MECHANICAL DETAIL SHEET  |
| PLUMBING   |   |
| P001<br>P101<br>P102   | PLUMBING COVER SHEET<br>PLUMBING FIRST FLOOR DEMOLITION PLAN<br>PLUMBING FIRST FLOOR NEW WORK PLAN  |
| ELECTRICA  | AL  |
| E001<br>E101<br>E102<br>E700<br>E701   | ELECTRICAL COVER SHEET<br>ELECTRICAL FIRST FLOOR DEMOLITION PLAN<br>ELECTRICAL FIRST FLOOR PLAN<br>ELECTRICAL PANEL SCHEDULE AND RISER DIAGRAM<br>ELECTRICAL PANEL SCHEDULE   |
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# **1425 NORTH QUINCY STREET 1425 UPGRADE (Q1)**

**1425 NORTH QUINCY STREET** ARLINGTON, VIRGINIA

TAX MAP: <u>15-040-045</u>



## OWNER

COUNTY BOARD OF ARLINGTON 2100 CLARENDON BLVD #302 ARLINGTON, VIRGINIA 22201 CONTACT: MARK KHORSHID PHONE: (703) 228-4448 EMAIL: mkhorshid@arlingtonva.us

## ENGINEER

TIMMONS GROUP 20110 ASHBROOK PL STE 100 ASHBURN, VIRGINIA 20147 CONTACT: OSVALDO RAMOS PHONE: (703) 554-6719 FAX: (703) 726-1345 EMAIL: Osvaldo.Ramos@timmons.com

| 13 | 12 | 11 | 10 | 9 | 8 |  |
|----|----|----|----|---|---|--|
|    |    |    |    |   |   |  |

THIS TOPOGRAPHIC MAPPING SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, STANLEY D. HEISER FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE ORIGINAL DATA WAS OBTAINED ON MARCH 28, 2018 - MAY 11, 2018; AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

BEARINGS AND DISTANCES SHOWN HEREON MAY VARY FROM RECORD AND ARE SHOWN AS MEASURED.

HORIZONTAL DATUM; VIRGINIA STATE COORDINATE SYSTEM NAD89 (2011), AS DETERMINED BY GPS OBSERVATIONS.

VERTICAL DATUM: NAVD88, AS DETERMINED BY GPS OBSERVATIONS.

| Sheet List Table |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|
| Sheet<br>Number  | Sheet Title                                      |  |  |  |  |  |  |  |
| C001             | COVER SHEET                                      |  |  |  |  |  |  |  |
| C100             | GENERAL NOTES & DETAILS                          |  |  |  |  |  |  |  |
| C200             | <b>EXISTING CONDITIONS &amp; DEMOLITION PLAN</b> |  |  |  |  |  |  |  |
| C300             | SITE LAYOUT - NEW WORK                           |  |  |  |  |  |  |  |
| C400             | GRADING PLAN                                     |  |  |  |  |  |  |  |
| C401             | DETAILED GRADING PLAN                            |  |  |  |  |  |  |  |
| C500             | STORM PROFILE                                    |  |  |  |  |  |  |  |

## ARCHITECT

**GRIMM AND PARKER** 8609 WESTWOOD CENTER DRIVE, SUITE 425 VIENNA, VA 22182 CONTACT: DAVID WHALE PHONE: (703) 839-7516 EMAIL: dwhale@gparch.com

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| © GR     | NIMM AND PARKER ARCHITECTURE, INC. |  |   | 16  | 15  |   |   |   | 1  | 1  | 9   | )  | 8  | 7   | 6  | 5                                    | 4   | 3  | 2  |
|----------|------------------------------------|--|---|---|---|---|---|---|--|--|---|--|--|---|--|--------------------------------------|---|--|--|
|          |                                    | OWNER:<br>THE COUNTY I   | <b>NIVIATION.</b><br>BOARD OF ARLINGTON COUNT   | Y. VA   |   | 1. METHODS AND MATE   | RIALS USED SHALL CONFO  | RM TO CURRENT COUNTY AND VDOT S   | STANDARDS  |  |   |  |  |   |  |                                      |   |  |  |
|          |                                    | 2100 CLARENE<br>ARLINGTON, V   | DON BLVD #302<br>VA 22201   | .,  |   | AND SPECIFICATIONS 2. ALL UTILITIES, INCLUI                                       | S.<br>DING ALL POLES, ARE TO BI<br>LE RESPONSIBILITY OF THE   | BE RELOCATED AT THE CONTACTOR'S E   | EXPENSE.   |  |   |  |  |   |  |                                      |   |  |  |
|          |                                    | CIVIL DESIGN ENGI<br>TIMMONS GRC<br>20110 ASHBRC<br>ASHBURN, VIR             | <u>SINEER:</u><br>OUP<br>OOK PLACE, SUITE 100<br>RGINIA 20147   |   |   | 3. OPEN CUTTING OF PA<br>WHICH WILL BE PLAC                                       | AVED OR SURFACE TREATE  | ED VDOT ROADS IS NOT PERMITTED. AL  | LL UTILITIES<br>IY EXCEPTIONS,                   |  |   |  |  |   |  |                                      |   |  |  |
| М        |                                    | PHONE: (703) \$  | 554-6719<br>ON COUNTY, VIRGINIA REAL PR<br>15040045 (ZONED M-1), 1504004  |   | PERTIES SHOWN   | APPROVED BY THE O   | G CIRCUMSTANCES, ARE TO<br>WNER.<br>RESPONSIBLE FOR ANY D/  | O BE ADDRESSED AT THE PERMIT STAC   | GE AND   |  |   |  |  |   |  |                                      |   |  |  |
|          |                                    | 15040048 (ZON<br>2. THE PROPERT  | NED C-O-1.0/M-1).   | V IN THE NAME OF: (RPC#15040045 AI  | ND RPC#15040046)  | OCCUR AS A RESULT<br>OF WAY.  |   |   | EXISTING RIGHT                                   |  |   |  |  |   |  |                                      |   |  |  |
|          |                                    | COOPER QUIN<br>3, 2003 RECOR<br>(RPC#15040047<br>DEED DATED N                | NCY, L.L.C. AND WERE ACQUIRE<br>RDED IN DEED BOOK 3619 AT P/<br>I7) COOPER QUINCY NO. 1, L.L.C<br>NOVEMBER 3, 2003 RECORDED | ED FROM COOPER QUINCY 66 BY DEE<br>AGE 633;<br>C. AND WAS ACQUIRED FROM COOPE<br>IN DEED BOOK 3619 AT PAGE 636 AN | ED DATED NOVEMBER<br>ER QUINCY 66 BY<br>ND (RPC#15040048)   | PROPOSED EDGE OF<br>PONDING OF ANY WA   | PAVEMENT TO PRECLUDE<br>TER IN THE ROADWAY.   | THE FORMING OF FALSE GUTTERS ANI  | D /OR THE  |  |   |  |  |   |  |                                      |   |  |  |
|          |                                    | COOPER QUIN<br>NOVEMBER 3,<br>ARLINGTON CO                                   | VCY NO. 2, L.L.C. AND WAS ACQ<br>2003 RECORDED IN DEED BOO<br>COUNTY, VIRGINIA.   | UIRED FROM COOPER QUINCY 66 BY<br>K 3619 AT PAGE 639 ALL AMONG THE  | Y DEED DATED<br>E LAND RECORDS OF                           | 6. STANDARD GUARDRA<br>DESIGNATED DURING  | AILS AND/OR HANDRAILS SH<br>G FIELD REVIEW BY OWNER   | HALL BE INSTALLED AT HAZARDOUS LO<br>RS INSPECTOR OR VDOT.  | CATIONS AS                                       |  |   |  | (IP)   | INLET I   | PROTECTIO  | DN                                   |   |  |  |
| L        |                                    | 3. BOUNDARY INI<br>GORDON AND  | IFORMATION IS TAKING FROM A<br>DATED 04-29-15.  | AN ALTA/ACSM LAND TITLE SURVEY F  | PERFORMED BY  | SIGNING, STRIPING A<br>MINIMUM OF THIRTY I<br>CONSTRUCTION OF A                   | ND/OR SIGNALIZATION PLA<br>DAYS PRIOR TO PERMIT AP  | ITHOUT AN APPROVED STRIPING PLAN.   | SECTION A<br>DT COMMENCE                         |  |   |  |  |   |  | -                                    | NOTE: SUB-BASE DEPTH<br>ONCE SOIL TESTS OF SU   | S ARE BASED ON A CBR VALUI<br>3GRADE ARE PERFORMED. RE | ECTIONS<br>E OF 4, WHICH MAY BE RE<br>FER TO FUTURE GEOTEC   |
| _        |                                    | 4. THIS TOPOGRA<br>CHARGE OF, S<br>THAT THE ORI                              | APHIC MAPPING SURVEY WAS<br>STANLEY D. HEISER FROM AN A<br>IGINAL DATA WAS OBTAINED OI                                      | COMPLETED UNDER THE DIRECT AN<br>CTUAL GROUND SURVEY MADE UND<br>N MARCH 28, 2018 - MAY 11, 2018; AN              | ND RESPONSIBLE<br>DER MY SUPERVISION;<br>ND THAT THIS PLAT, | 8. CBR TEST SHALL BE I<br>PAVEMENT SECTION<br>SUBGRADE MUST BE                    | PERFORMED PRIOR TO DET<br>IS BASED ON A CBR VALUE<br>SUBMITTED FOR ACTUAL D                                 | TERMINATION OF FINAL SUBGRADE ELE<br>OF 10 UNLESS OTHERWISE NOTED. SO<br>DETERMINATION OF REQUIRED SUBBAS                                       | EVATION.<br>DILS TEST OF                         |  |   |  | A RIDGE OF CON<br>DISTURBED ARE  | MPACTED SOIL CONSTRUC<br>A WHICH DIVERTS OFF-SIT                                  | TED AT THE TOP OR BASE<br>E RUNOFF AWAY FROM U       | / :<br>OF A SLOPING<br>NPROTECTED    | REPORT & INVESTIGAT   | ONS FOR MORE DETAILED PA                               | VEMENT RECOMMENDATI  |
|          |                                    | MAP, OR DIGIT<br>UNLESS OTHE   | TAL GEOSPATIAL DATA INCLUDI<br>ERWISE NOTED.<br>DATUM' NAD83  | ING METADATA MEETS MINIMUM ACC  | CURACY STANDARDS  | PRIOR TO CONSTRUC<br>MOISTURE CONTENT<br>CBR VALUES SHALL E                       | CTION. ALL SUBGRADE TO B<br>PER AASHTO-T99 METHOD<br>BE SUBMITTED TO THE ENG                                | BE COMPACTED TO 95% DENSITY AT 2%<br>D. FINAL PAVEMENT DESIGN BASED ON<br>GINEER FOR APPROVAL. CONTRACTOR                                       | 6 OF OPTIMUM<br>THE ACTUAL<br>TO REQUEST         |  |   |  | SLOPES AND TO<br>SEDIMENT TRAF   | A STABILIZED OUTLET, OR<br>PPING STRUCTURE. MAXIM                                 | R TO DIVERT SEDIMENT-LA<br>UM EFFECTIVE LIFE IS 18 N | DEN RUNOFF TO A<br>MONTHS.           |   | 1 1/2" SM-9.9<br>5" BM-25.0A                           | .5A BITUMINOUS CONCRE<br>A BITUMINOUS CONCRETE   |
|          |                                    | 6. VERTICAL DAT  | TUM: NAVD88   |   |   | CBR TESTS A MINIMU<br>9. A 4" (MIN.) LAYER OF                                     | M ONE MONTH PRIOR TO P.<br>STONE IS REQUIRED BENE.  | AVING OPERATIONS.   | Г  |  |   |  |  | URB INLET   | PROTECTI   | ON                                   |   | 6" #21-A AG  | GREGATE STONE  |
|          |                                    | 7. THE PROPERT<br>ANNUAL CHAN<br>INSURANCE RA                                | TIES SHOWN HEREON LIE WITH<br>NCE FLOODPLAIN ACCORDING <sup>-</sup><br>ATE MAP.   | IN ZONE X, AREAS DETERMINED TO I<br>TO MAP NUMBER 51013C0038C OF TH   | BE OUTSIDE THE 0.2%<br>HE FEMA FLOOD                        | 10. ADDITIONAL DITCH LI<br>AT THE OWNER'S EXF<br>REVIEW.                          | NINGS OR SILTATION AND E<br>PENSE, AS DETERMINED NE   | EROSION CONTROL MEASURES SHALL<br>ECESSARY BY VDOT AND/OR DCR DURI  | BE PROVIDED,<br>NG FIELD                         | 2'-0"<br>1"  |   |  | VI   | WOODE   | N WEIR   | <i>H</i>                             |   |  |  |
| <u> </u> |                                    | 8. THERE ARE NO PROPERTIES.  | O ARLINGTON COUNTY RESOU  | RCE PROTECTION AREAS THAT AFFE  | ECT THE SUBJECT   | 11. OVERLAY OF EXISTIN<br>PAVEMENT OVERLAY<br>BE ASSUMED BY THE                   | G PAVEMENT SHALL BE MIN<br>, OR THE MILLING OF EXIST  | NIMUM OF 1.5" DEPTH; ANY COSTS ASS<br>FING PAVEMENT TO OBTAIN REQUIRED  | SOCIATED WITH<br>DEPTH, SHALL                    | 1"=1' Slope to<br>R=½"   | 5'-0" Std.  | reet   | GRAVEL*  | OF 2" X 4"  | 6' MAXIMIM   | SPACING                              |   |  |  |
|          |                                    |  |   |   | SUBJECT   | 12. OWNER IS RESPONSI<br>OR MODIFICATION WI                                       | BLE FOR DESIGN AND CON  | ISTRUCTION OF ANY TRAFFIC SIGNAL IN<br>AS A RESULT OF DEVELOPMENT OF TH   | NSTALLATION<br>IIS SITE.                         | (C-2) STANDARD CURB & GUTTER   | 4" St'd Conc.   | +  |  | SPACERS   | 2" X 4" ANCHORS<br>GENCY OVERFLOW                    | STITCING                             |   | AISLES & TEMPOF  | RARY RAMP)   |
|          |                                    | 1. ALL CONSTRU   | JCTION SHALL BE IN ACCORDAN   | NCE WITH THE STANDARDS SET FOR  | RTH IN THE LATEST   | 13. ALL RIGHT OF WAY D  | EDICATED TO PUBLIC USE S  | SHALL BE CLEAR AND UNENCUMBERED   | D.<br>DE WAY THAT                                | 2'-0"  | STANDARD CONCRETE SIDE  | EWALK  |  |   |  |                                      | CPOSS   | NO SCALE   |  |
|          |                                    | STORM WATER<br>SEWER UTILIT<br>TRANSPORTA                                    | R MANAGEMENT HANDBOOK, A<br>TY STANDARDS MANUAL, AND T<br>TION.   | RLINGTON COUNTY SERVICE AUTHO   | ORITY WATER AND<br>EPARTMENT OF                             | DO NOT QUALIFY FOR<br>15. TRAFFIC CONTROL D                                       | R VDOT MAINTENANCE.   | NS, SUCH AS MULTIWAY STOPS, SPEED   | LIMITS, DEAF                                     | 1"   | 6"<br>  |  |  |   | PERSPECT   | TIVE VIEW                            |   | 4" CLAS  | 3S A-3 CONCRETE  |
|          |                                    | 2. ALL FILL, BASE<br>DENSITY AS DI<br>MOISTURE FOI                           | E AND SUBBASE MATERIAL SHA<br>DETERMINED BY AASHTO T-99 M<br>OR THE FULL WIDTH OF ANY DEI                                   | ALL BE COMPACTED TO 95% OF THEO<br>IETHOD A WITHIN PLUS OR MINUS 29<br>DICATED RIGHT-OF-WAY.                      | ORETICAL MAXIMUM<br>% OF OPTIMUM                            | CHILD, CHILDREN AT<br>PLANS OR A VDOT AF<br>VDOT INSPECTION, T<br>NOT RECOMMENDED | PLAY, ETC., SHALL NOT BE<br>PROVED REVISION. SHOUL<br>HE ROAD ACCEPTANCE PRO<br>UNTIL A DETERMINATION IS    | INSTALLED UNLESS SPECIFICALLY SHO<br>LD UNAPPROVED SIGNS BE NOTED AT T<br>COCESS SHALL BE TERMINATED IMMEDI<br>IS MADE REGARDING THE APPROVAL O | THE TIME OF<br>IATELY AND<br>F ANY               | a R=½" Hatter  |   | ₩.<br>+  |  |   |  |                                      |   | 4" 21 A 5  | STONE  |
|          |                                    | 3. SIDEWALKS AN<br>OPTIMUM MOIS  | ND TRAILS SHALL BE CONSTRU<br>ISTURE CONTENT (AASHTO T-99   | JCTED ON A SUBGRADE COMPACTEE<br>9).  | D TO 95% DENSITY AT   | ADDITIONAL SIGNS. II<br>OF A REVISION.  | MMEDIATE REMOVAL OF SU  | JCH SIGNS SHALL NOT NEGATE FOR TH   |  | (C-2R) STANDARD REVERSE<br>PITCH CURB & GUTTER   | (C-3) STANDARD HEADE  | ER CURB  | 2" X 4" W  | EIR<br>2" X 4" SPACER   | SAND   | BAG OR                               | STAND   |  | ADE (COMPACTED<br>6 DENSITY)   |
|          |                                    | 4. CALL "MISS UT<br>ELEVATION OF<br>WORK. CONTA                              | TILITY" 48 HOURS PRIOR TO TH<br>F ALL UNDERGROUND UTILITIES<br>ACT THE ARCHITECT/ENGINEER                                   | E START OF EXCAVATION. VERIFY LC<br>S IN AREA OF CONSTRUCTION PRIOF<br>R IMMEDIATELY IF LOCATION OR ELEY          | OCATION AND<br>R TO STARTING<br>EVATION IS DIFFERENT        | WAY EXCEPT AS SHC   | WN ON THESE PLANS OR A  | A VDOT APPROVED REVISION.   |  | NOTES:   |   |  |  | 2' M<br>OF 2  | INIMUM LENGTH ALTERN                                 |                                      |   | NO SCALE   |  |
|          |                                    | FROM THAT IN<br>UTILITY NOT IN   | NDICATED. IF THERE APPEARS <sup>-</sup><br>NDICATED, CALL "MISS UTILITY"  | TO BE A CONFLICT, AND UPON DISCO<br>" AT 1-800-257-7777 (TOLL FREE).  |   | 1. ALL CONSTRUCTION   | R CONSTRUCTION  | ON NOTES  | URRENT   | <ol> <li>SECTION C-3 IS TO BE USED ONLY W<br/>IN WRITING OR WHEN SHOWN ON AF</li> <li>EXPANSION JOINTS IN HEADER CUR</li> </ol>  | /ITH RIGID TYPE PAVEMENT UNLESS OTHERWI<br>PPROVED PLANS.<br>B AND STANDARD CURB AND GUTTERSHALL BI   | ISE DIRECTED<br>IE 40' APART OR  | SIDE   | 2" X<br>GRAVE   |  |                                      | DENOTE:<br>SIDEWALK   | STANDARD CONCRETE SIDEW<br>SHALL BE CONSTRUCTED TO     | VALK SECTION ON PLANS<br>MINIMUM VDOT STANDAR  |
| н        |                                    | SITEWORK, AN<br>RIGHT-OF-WAY   | ND FURNISH COPIES TO THE ON<br>Y REQUIRES A VDOT PERMIT.  | WNER. ANY WORK DONE WITHIN THE  | E VDOT  | VIRGINIA DEPARTMEI<br>2. ALL CONCRETE SHAL  | NT OF TRANSPORTATION R  | ROAD AND BRIDGE SPECIFICATIONS.<br>PLACE, CLASS A4 IF PRECAST.  |  | AT EXPANSION JOINTS IN CONCRET<br>3. EXPANSION JOINTS MAY BE OMITTEI<br>4. EXPANSION JOINTS IN THE SIDEWAL<br>EXPANSION JOINTS SHALL MATCH JO<br>BETWEEN CURB AND SIDEWALK.  | E PAVEMENT.<br>D IF 1/8" JOINTS ARE PLACED EVERY 10' OF LES<br>K SHALL BE 40' APART. IF ADJACENT TO CONC<br>OINT OF CURB. AN EXPANSION JOINT SHALL B                                    | SS<br>CRETE CURB,<br>SE PLACED   |  |   | 2 w  | " X 4" SPACER<br>/IRE MESH           |   |  |  |
|          |                                    | <ol> <li>ALL DIMENSIO</li> <li>ALL WORK SHA<br/>NOTIEY THE CI</li> </ol>     | DNS ARE TO FACE OF CURB UNI<br>IALL BE SUBJECT TO INSPECTIC<br>CHIEF INSPECTOR 48 HOURS PR                                  | LESS OTHERWISE NOTED.<br>ON BY DESIGNATED ARLINGTON COU<br>RIOR TO START OF WORK.                                 | JNTY OFFICIALS.   | 3. MANHOLES AND DRO<br>A. MANHOLES TO E   | P INLETS SHALL BE CONST<br>IGHT FEET DEEP.  | RUCTED FROM INVERT TO TOP AS FOL  | LOWS:  | <ol> <li>SEE DRAWING R-2.2 FOR DETAIL OF<br/>SIDEWALK WHEN PLACED ADJACEN</li> <li>SEE ARLINGTON COUNTY SPECIFICA</li> <li>PROVIDE 6" MINIMUN AGGREGATE B</li> <li>PROVIDE 3" MINIMUM AGGREGATE A</li> </ol>   | SIDEWALK STRESS COLUMN TO BE PLACED UN<br>T TO BACK OF CURB.<br>ATION SECTIONS 02611 AND 03100 FOR MATERI<br>ASE HAVING CBR-30 UNDER CURB AND GUTTE<br>ASE HAVING CBR-30 UNDER SIDEWALK | NDER<br>IIAL SPECS.<br>ER.   |  | 票吗<br>SPECIFIC APPLICATION  |  | INLET -<br>TO                        |   | 7/8" DIA SMOOTI  | H DOWELS (16" LONG) @ <sup>.</sup><br>NTROL / CONSTRUCTION   |
|          |                                    | 8. REFER TO ARC<br>SITE LIGHTING   | CHITECTURAL / ELECTRICAL DF<br>G.   | RAWINGS FOR ROUTING OF UNDERG   | GROUND WIRING FOR   | BLOCK (     POURED     PRECAS     PRECAS  | CONSTRUCTION - MINIMUM<br>) IN PLACE CONCRETE - MIN<br>T - MINIMUM EIGHT INCH W.<br>T BASE SLAB.            | EIGHT INCH WALLS.<br>NIMUM EIGHT INCH WALLS AND NON<br>/ALLS IN CONJUNCTION WITH PRECAST  | REINFORCED.<br>THROAT AND                        |  |   |  | THIS METHOD<br>TO CURB INL<br>IS DESIRED.  | OF INLET PROTECTION IS AP<br>ETS WHERE A STURDY, COMP<br>EMERGENCY OVERFLOW CAPAB | PPLICABLE<br>ACT INSTALLATION<br>BILITIES ARE        | PIPE                                 |   |  |  |
|          |                                    | 9. REFER TO ARC<br>WALKWAYS AN   | CHITECTURAL DRAWINGS FOR<br>ND PATIO AREAS.   | ADDITIONAL DIMENSIONS AND SCOP  | RING PATTERNS OF  | PRECAS     B. MANHOLES OVER   | T.<br>REIGHT FEET DEEP.   |   | F  | CONCRETE CURB  | & GUTTER AND SIDEWALK   | Rev. Sidewalk Dims 07/11/2013  | MINIMAL, SO<br>MEASURE.  | EXPECT SIGNIFICANT PONDING  |  | ,                                    |   |  |  |
| G        |                                    | 10. PROVIDE ALL UNDERGROUN   | UTILITY LINES SUCH AS ELECTIND.   | RIC, TELEPHONE, CATV, OR OTHER S  |   | <ul> <li>PRECAS</li> <li>POURED</li> <li>SPECIAL</li> </ul>                       | ) IN PLACE REINFORCED CC<br>DESIGN, I.E., BENDS, PREC   | ONCRETE.<br>CAST TEES, PRECAST BOXES, WYES.   | F  | ARLING<br>DEPARTMEN  | GTON COUNTY, VIRGINIA   | REVISION & DATE  | 43, #357 0   | R #5  |  | PLATE 3 07-7                         |   | 200000<br>200000<br>200000<br>4" 21 A STC              | DNE  |
|          |                                    | 12. DRAIN ALL DIS  | STURBED AREAS TO APPROVED   | ILITY FOR DISABLED PERSONS.   | T ALL TIMES DURING  | 4. DROP INLETS AND CU<br>TO THE FIRST STEP II                                     | JRB INLETS SHALL HAVE ST<br>N THE INLET SHALL NOT EX  | TEPS. THE MAXIMUM DIMENSION FROM<br>(CEED THREE FEET.   |  | CG-12  | 2016 ROAD & BRID  | CGE STANDARDS  | T OF THE FOLLOWING:  |   |  | TEATE 3.07-7                         |   | SUBGRAD  | <sup>,</sup> E (COMPACTED<br>ENSITY)   |
|          |                                    | LAND DISTURE<br>ACHIEVED.  | BING ACTIVITIES AND DURING S  | SITE DEVELOPMENT UNTIL FINAL STA  | ABILIZATION IS  | 5. UNLESS STATED ON<br>INVERT OF ALL STRUE<br>PONDING OF WATER.                   | CTURES ACCORDING TO VE  | MMETRICAL CHANNELS SHALL BE PERF<br>DOT STANDARDS IS-1 TO PREVENT STA   | ANDING OR  | GENERAL NOTES:<br>1. THE DETECTABLE WARNING SHALL BE PROVIN<br>2. ALL DETECTABLE WARNING SURFACE PRODUC<br>OF SECTION 504 OF THE SPECIFICATIONS F  | DED BY TRUNCATED DOMES.<br>CTS SHALL MEET THE REQUIREMENTS<br>OR CG-12 DETECTABLE WARNING SURFACE.  | HYDRAULIC CEMENT SIDEWALK (DEPTH IN<br>CURB WHEN REQUIRED (CG-2 OR CG-3 II<br>DETECTABLE WARNING SURFACE (AREA IN<br>EACH OF THE ABOVE ITEMS IS A SEPAR,<br>BE SUMMARIZED FOR EACH CURB CUT R/<br>SIDEWALK | N INCHES, AREA IN SQUARE YARDS)<br>IN LINEAR FEET)<br>N SQUARE YARDS)<br>RATE PAY ITEM AND SHOULD<br>RAMP. |   |  |                                      | HEA   | /Y DUTY CONCRET  | E SECTION  |
|          |                                    | 14. BURNING OF C   | CONSTRUCTION OR DEMOLITIO   | IN MATERIALS IS NOT PERMITTED ON  | N SITE.   | 6. IF BLOCK CONSTRUC<br>PLASTERED WITH MC   | TION IS USED, THE INSIDE A<br>ORTAR A MINIMUM OF 1/2" TI  | AND OUTSIDE WALLS, AS THEY ARE LAI<br>THICK.  | ID, SHALL BE                                     | DETECTABLE WARNING SUFACE PRODUCTS US<br>APPROVED PRODUCT LIST NUMBER 72.<br>3. SLOPING SIDES OF CURB RAMP MAY BE POL<br>FLOOR OR BY USING PERMISSIBLE CONSTRU<br>4. REQUIRED BARS ARE TO BE NO.5 X 8" PLA<br>BOTH SIDES OF THE RAMP FLOOR, MID-DEPT | SED SHALL BE FROM THE MATERIALS<br>JRED MONOLITHICALLY WITH RAMP<br>CTION JOINT WITH REQUIRED BARS.<br>ICED 1' CENTER TO CENTER ALONG<br>H OF RAMP FLOOR. MINMUM                        |  | INCL MAX   |   |  |                                      | DENO  | ES HEAVY DUTY CONCRETE S                               | ECTION ON PLANS  |
| F        |                                    | <ol> <li>THE APPROVA</li> <li>OTHER APPLIC</li> <li>ALL TEST PITS</li> </ol> | AL OF THESE PLANS SHALL IN N<br>CABLE LOCAL, STATE AND FEDI<br>S SHALL BE PERFORMED 10 DA                                   | IO WAY RELIEVE THE OWNER OF CO<br>ERAL REQUIREMENTS.<br>YS PRIOR TO CONSTRUCTION AND A                            | MPLYING WITH  | 8. VDOT INLETS, WHERE<br>CASE OF SPECIAL DE                                       | E PIPE SIZE IS LARGER THA<br>SIGN INLETS THAT DEVIATE   | AN 48 INCHES I.D., REQUIRE A SPECIAL I<br>E FROM THE STANDARD, THE PRECAST  | DESIGN. IN                                       | <ol> <li>CONCRETE COVER / CURB AND GUTTER SLOPI<br/>RAMPS ARE INCLUDED IN PAYMENT FOR CUR</li> <li>CURB RAMPS ARE REQUIRED FOR SIDEWALKS<br/>THE CURB RAMP SHALL MATCH SIDEWALK WI<br/>CONJUNCTION WITH A SHARED USE PATH, TH</li> </ol>             | E TRANSITIONS ADJACENT TO CURB<br>B / CURB AND GUTTER.<br>: AND SHARED USE PATHS. THE WIDTH OF<br>IDTH. WHEN CURB RAMPS ARE USED IN<br>E MINIMUM WIDTH SHALL BE THE WIDTH               | TYPE A<br>PERPENDICULAR  |  |   |  | <u>SIGNAGE I</u><br>1. ALL PRO       | NOTES<br>OPOSED SIGNING AND PAVEMENT M  | ARKING SHALL BE IN                                     |  |
| <u> </u> |                                    | THE RESULTS<br>OWNER APPRO   | FORWARDED TO THE ENGINE   | ER FOR A REDESIGN. SUCH REDESIG   | GNS ARE SUBJECT TO  | MANUFACTURER OR<br>FOR PROPER APPRO   | DESIGN ENGINEER MUST S<br>VAL.  |   |  | OF THE SHARED USE PATH.<br>7. DETECTABLE WARNINGS SHALL EXTEND THE<br>CURB RAMP LANDING FLOOR.<br>8. CURB RAMPS WILL BE INSTALED AND LOCA:<br>AS SHOWN ON PLANS OR AS DIRECTED BY<br>NOT BE LOCATED BEHIND VEHICLE STOP LIN                          | FULL WIDTH OF THE<br>TED WITHIN PEDESTRIAN CROSSWALKS<br>THE ENGINEER. CURB RAMPS SHOULD<br>ES, LIGHT POLES, FIRE HYDRANTS, DROP  | 12:1 MAX 21:1 12:1   | MAX 5. MIN   |   |  | ACCORDAN<br>FOLLOWING<br>A. MANUA    | CE WITH THE MOST CURRENT EDIT<br>AND ANY REVISION THERETO:<br>AL ON UNIFORM TRAFFIC CONTROL | DEVICES.   | REQ<br>N   |
|          |                                    | A. CONTROLLED<br>A. CONTROL<br>FOR UTILI                                     | LLED COMPACTION SHALL OCC<br>ITIES, AND IN ANY DESIGNATED   | UR IN ALL FILL SECTIONS FOR PAVE<br>OON THE DRAWINGS.   | EMENTS, TRENCHES  | FOUR INCHES AND A<br>10. THE "H" DIMENSIONS                                       | MAXIMUM OF SIX INCHES L   | ARGER THAN THE OUTSIDE DIAMETER   | OF THE PIPE.                                     | <ol> <li>RAMPS MAY BE PLACED ON RADIAL OR TANK<br/>THE CURB OPENING IS PLACED WITHIN THE I<br/>THAT THE SLOPE AT THE CONNECTION OF T<br/>PERPENDICULAR TO THE CURB.</li> <li>DETECTABLE WARNING SURFACE PANELS SH/<br/>THE BACK OF CURB.</li> </ol>  | SENTIAL SECTIONS PROVIDED THAT<br>LIMITS OF THE CROSSWALK AND<br>THE CURB OPENING IS<br>ALL BE INSTALLED FLUSH WITH   | PARALLEL   | 12:1 MAX   |   |  | CONTRO<br>C. THE VII<br>BRIDGE       | OL DEVICES.<br>RGINIA DEPARTMENT OF TRANSPOR<br>SPECIFICATIONS.                             | TATION ROAD AND  | 18"  |
|          |                                    | B. CONTROL<br>PER STAN<br>QUALIFIEI  | LLED FILLS MUST BE COMPACT<br>NDARD PROCTOR AASHTO-T99<br>D SOILS ENGINEER.   | ED TO 95% DENSITY AS DETERMINED<br>OR ASTM-D698. DENSITY MUST BE VI   | D BY METHODS AS<br>/ERIFIED BY A                            | 11. TWO (2) INCH DEEP H   | OUTFALL PIPE TO THE TO  | ) IN ENDWALL WHERE DIRECTED BY TH   | E INSPECTOR.                                     | 11. WHERE CURB RAMPS INTERSECT A RADIAL S<br>OR STREET CONNECTIONS THE DETECTABLE<br>A FACTORY RADIUS OR BE FIELD-MODIFIED /<br>MANUFACTURER TO MATCH THE BACK OF CI<br>AND 204.07 FOR METHODS OF INSTALLING I                                       | ECTION OF CURB AT ENTRANCES<br>WARNING SURFACE SHALL HAVE<br>AS RECOMMENDED BY THE<br>URB. SEE CG-12-INS PAGES 204.06<br>DETECTABLE WARNINGS ON A RADIUS. 4' MIN                        |  | AT X , 2" HIGHER THAN  |   |  | D. THE LC<br>2. PROPOS               | DUDOUN COUNTY FACILITIES STAND.<br>SED SIGN LOCATIONS ARE APPROXIN                          | RDS MANUAL.<br>1ATE AND SHALL BE MODIFIED              | 2 \$100-5<br>1 TOW-AW  |
|          |                                    | C. CONTROL<br>SPECIFIEI<br>APPROVE   | LLED FILLS SHALL BE COMPACT<br>D DENSITY. BEGINNING FROM T<br>ED IN WRITING BY A QUALIFIED                                  | TED IN EIGHT (8) INCH LIFTS (LOOSE <sup>-</sup><br>THE EXISTING GROUND SURFACE. UI<br>SOILS ENGINEER.             | THICKNESS) TO THE<br>INLESS OTHERWISE                       | <ol> <li>ALL PIPES ARE MEAS</li> <li>ALL FILL BENEATH SE</li> </ol>               | URED FROM CENTER OF ST  | TRUCTURE TO CENTER OF STRUCTURE   | E.<br>TTER.                                      |  |   | TYPE C<br>PARALLEL & PERPEN  | DIGE OF PAVEMENT<br>AT XX, SAME AS TOP OF CURB   |   |  | OTHER OBS<br>IN NOTE 1<br>3. ALL SIG | STRUCTIONS, AND TO COMPLY WITH<br>ABOVE.  | STANDARDS REFERENCED                                   |  |
| <u>-</u> |                                    | D. THE SURF<br>FIVE (5) FE   | FACE AREA DIRECT BENEATH A<br>EET IS TO BE DENUDED OF ALL<br>E SIX (6) INCHES TO THE SAME                                   | AREAS TO RECEIVE CONTROLLED FIL<br>VEGETATION AND SCARIFIED AND C   | LLS OF LESS THAN<br>COMPACTED TO A                          | ASTM d-698. DENSITY<br>SHALL BE COMPACTE<br>BEGINNING FROM TH                     | MUST BE COMPACTED TO TO<br>MUST BE VERIFIED BY A Q<br>ED IN EIGHT-INCH LIFTS (LO<br>E EXISTING GROUND SURF. | QUALIFIED SOILS ENGINEER. CONTROLL<br>OOSE THICKNESS) TO THE SPECIFIED DI<br>FACE, UNLESS OTHERWISE APPROVED                                    | ED FILLS<br>ENSITY,<br>IN WRITING BY             |  | +   |  |  |   |  | TO BE FUR<br>SHALL BE<br>THE CONTR   | RNISHED AND INSTALLED BY THE C<br>FURNISHED AND INSTALLED ON P/<br>RACTOR.                  | NTRACTOR. ALL SIGNS<br>" WOODEN 4"X4" POSTS BY         |  |
|          |                                    | 18. CONTRACTOR   | R SHALL SUBMIT MATERIAL LIST  | FOR ALL WATER / SEWER IMPROVE   | EMENTS TO   | A QUALIFIED SOILS E<br>14. ALL FILL BENEATH MA<br>OR #78 STONE AND M              | NGINEER.<br>ANHOLES IS TO BE SELECT<br>ILIST BE COMPACTED TO 10   | FILL. SELECT FILL MATERIAL SHALL CO   | DNSIST OF #67                                    |  |   |  |  |   |  |                                      |   |  | VAN_AC<br>   |
|          |                                    | 19. ALL RETAINING<br>COLOR TO BE   | G WALLS 30" AND HIGHER TO H   | AND APPROVAL PRIOR PORCHASE/II<br>IAVE 42" SAFETY RAILING. RAILING M<br>TECT PRIOR TO INSTALLATION.               | INSTALLATION.   | ASTM d-698. DENSITY<br>COMPACTED IN EIGH<br>THE EXISTING GROUI                    | MUST BE VERIFIED BY A Q<br>T-INCH LIFTS (LOOSE THICK<br>ND SURFACE, UNLESS OTH                              | QUALIFIED SOILS ENGINEER. SELECT FIL<br>KNESS) TO THE SPECIFIED DENSITY, BE<br>IERWISE APPROVED IN WRITING BY A Q                               | LLS SHALL BE<br>EGINNING FROM<br>QUALIFIED SOILS | DETECTABLE WARNING<br>AT BACK OF CURB<br>SEE NOTE 11.<br>DETECTABLE WARNING  |   |  |  |   |  |                                      |   | YP   |  |
|          |                                    | 20. THE CONTRAC<br>BINDING AS IF<br>PROVIDE THE                              | CT DOCUMENTS ARE COMPLEM  | IENTARY AND WHAT IS REQUIRED BY<br>SE OF A CONFLICT, DISAGREEMENT,<br>TO F A CONFLICT, DISAGREEMENT, O            | Y ONE SHALL BE AS<br>OR AMBIGUITY,<br>OR AMBIGUITY          | ENGINEER.   |   |   | -  | ROAD AND BRIDGE STANDARDS<br>SHEET 1 OF 5 REVISION DATE  | A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWN<br>CG-12 DETECTABLE WA<br>(GENERAL NO  | DETAIL<br>ING IS ON FILE IN THE CENTRAL OFFICE.<br>ARNING SURFACE<br>DTES)   | SPECIFICATION<br>REFERENCE<br>105  |   |  |                                      |   | -  |  |
| D        |                                    | PROVIDE THE  | GREATER QUANTITY OF WORK  | K.  |   | SWM AND E&S   | NARRATIVE:  |   | E  | 204.01 04/19   | VIRGINIA DEPARTMENT OF<br>2016 ROAD & BRID<br>2016 ROAD & BRIDGE STAND  | TRANSPORTATION<br>DGE STANDARDS<br>DARDS   | 504  |   |  |                                      |   |  |  |
|          |                                    | ZONIN  | IG TABULATIONS  | <u>:</u>  |   | CHAPTER 60, SECT<br>SEDIMENT CONTRO   | ION §60.5.3 OF THE ARLIN<br>DL PLAN OR STORMWATE  | NGTON COUNTY CODE, NO EROSIO<br>ER MANAGEMENT PLAN IS REQUIRE   | AND<br>NAND<br>ED FOR THIS                       |  | A<br>5'   |  |  | _   |  |                                      |   | 2. CONCRETE SIDE                                       | ATCH SIDEWALK WIDTH OR AS S<br>DEWALK EXPANSION JOINTS SHA<br>FRVALS AND AT ALL SIDEWALK L                               |
|          |                                    | NORTHERN<br>PARCEL RP  | <u>N PARCEL:</u><br>PC: 15-040-045  |   |   |   |   |   |  |  |   | 8'T  | CAL DESIGN   |   |  |                                      |   |  | SIDEWALK EXPANSION JOINT   |
|          |                                    | OVERALL P<br>OVERALL P<br>EXISTING Z<br>MIN LOT SIZ                          | PROJECT AREA = 1.14 AC<br>PROJECT AREA = 1.88 ACRES<br>CONING & USE: M-1, LIGHT IND<br>ZE, WIDTH, AND DEPTH: NONE           | USTRIAL DISTRICT  |   |   |   |   |  | TRANSITION GUTTER PAN SLOPE  | A GUTTER PAN MAXIMUM SLOPE 20:1   | OPE<br>IGTH  |  |   |  |                                      |   | WITH PREMOL<br>SEALED WITH                             | LDED EXPANSION FILLER AND<br>1 <sup>1</sup> / <sub>4</sub> "x <sup>1</sup> / <sub>4</sub> " SILICONE SEALANT<br>1 4<br>4 |
| С        |                                    | SOUTHERN<br>PARCEL RP  | <u>I PARCEL:</u><br>PC: 15-040-046  |   |   |   |   |   |  |  | 8'-0" Min. 4'-0" Min.   | **   |  |   |  |                                      |   | NCRETE 4 4<br>WALK 4<br>IT SECTION 4                   |  |
|          |                                    | OVERALL PA<br>OVERALL PA<br>EXISTING ZO<br>MIN LOT SIZ                       | PARCEL AREA = 0.74 ACRES<br>PROJECT AREA = 1.88 ACRES<br>CONING & USE: CM, LIMITED IN<br>ZE WIDTH AND DERTH: NONE           | IDUSTRIAL DISTRICT  |   |   |   | TO BE YELLOW  |  | 20: 1  | SECTION A-A   | WITH   | TYPE A<br>H BUFFER STRIP   |   |  |                                      |   |  |  |
|          |                                    | MINIEUT SIZ  | ARKING REQUIREMENTS & NU<br>GTON COUNTY'S ZONING ORE  | -<br><u>JMBER OF SPACES:</u><br>DINANCE §14.3.7, MINIMUM REQUIRI  | RED IS  | 5'  |   | _6" DIAMETER STEEL PIPE<br>FILLED WITH CONCRETE   |  | יריין מו <i>ניינורינדיויויו ז</i> ונונווויויוי   | PERMISSIBLE<br>CONSTRUCTION<br>JOINT  |  |  |   |  |                                      |   | PAVEMENT COC   |  |
|          |                                    | 1 SPACE PE<br>20,000 FT. C   | ER 1,000 SQ. FT. OF WAREHOU<br>OF WAREHOUSE: 20,000 FT. / 1   | JSE OR 1 SPACE PER EACH 2 EMPL<br>1,000 FT. PER SPACE = 20 SPACES   | LOYEES (GREATER #)  |   | ILLARD  | RAKE &<br>SEALANT<br>FINISH<br>GRADE  |  | NOTES:   | CTION B-B   | EXAMPLE INST<br>SEE PLA  | TALLATION METHODS -  |   |  |                                      |   |  |  |
| В        |                                    |  | NBER OF PARKING SPACES RE<br>NBER OF PARKING SPACES PF  | EQUIRED: 20 SPACES<br>ROVIDED: 20 SPACES<br>UIRED: 1 SPACE  |   |   |   |   |  | <ol> <li>FOR GENERAL NOTES ON THE DET</li> <li>THIS DESIGN TO BE USED FOR CC<br/>(4' WIDE) REQUIRED AT TOP OF CU<br/>CONSTRUCTION.</li> <li>GUTTER PAN SHALL BE A MAXIMUM</li> </ol>   | ECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.<br>INSTRUCTION THAT INCORPORATES WIDER SIDEWALK. L<br>IRB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR<br>A SLOPE OF 20:1 AT THE RAMP OPENING.  |  |  |   |  |                                      | CONCRE  | TE SIDEWALK JC   | DINT DETAIL  |
|          |                                    | NUMBER OF  | F ADA PARKING SPACES PRO  | VIDED: 1 SPACE<br>SPACES (WITHIN PARCEL): 65 SPAC   | CES   | 2' <del> </del> 4"  |   | 1'-6" DIAMETER<br>CONC. FOOTING   |  | 4. DIAGONAL PLACEMENT IS NOT PERI  | MITTED.   |  |  |   |  |                                      |   | NO SCALE   |  |
|          |                                    |  | ABER OF PROPOSED PARKING  | G SPACES (WITHIN PARCEL): 49 SPA<br>SPACES: 16 SPACES   | ACES  | 8.0"  |   |   |  |  |   |  | TYPICAL PLACEMENT<br>TAT INTERSECTION<br>WITHIN CROSSWALK  |   |  |                                      |   |  |  |
|          |                                    | N/A  |   |   |   |   | <u>PIPE BOLLARD</u><br>no scale   | DETAIL  |  | SPECIFICATION A COP<br>REFERENCE (   | CG-12 DETECTABLE WAR  | WITHIN CROSSWALK   |  |   |  |                                      |   |  |  |
| A        |                                    |  |   |   |   |   |   |   |  | 502<br>504   | VIRGINIA DEPARTMENT OF TRANSPO<br>2016 ROAD & BRIDGE STAND  | DARDS  | REVISION DATE SHEET 2 OF 5<br>04/19 204.02   | 1   |  |                                      |   |  |  |
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CONCRETE SIDEWALK





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## **GRADING PLAN NOTES:**

- CONTRACTOR NOT TO EXCEED A 2% MAX SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES. 2. NO EXCAVATION IN THE AREAS OF EXISTING UTILITIES IS
- PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL MISS UTILITY" AT 1-800-552-7001, 48 HOURS PRIOR TO WORK. 3. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF EXCESS SOIL
- OR MATERIALS AT AN APPROVED LOCATION IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. 4. AT ALL TIMES, CONTRACTOR IS TO PROTECT EXISTING STORM
- DRAINAGE SYSTEM WITHIN THE PROJECT VICINITY AND ENSURE THAT NO DEBRIS ENTERS AND CAUSES DAMAGE, PER ARLINGTON COUNTY CODE 26.5C.
- 5. IF ANY CONTAMINATED SOILS IS FOUND DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR ALL WORK REQUIRED TO REMOVE AND REPLACE CONTAMINATED SOILS AND ADHERE TO THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.



| ſ          | © GRIMM AND PARKER ARCHITECTURE, INC. | 18 | 17 | 16 | 15 | 14 |
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## **GRADING PLAN NOTES:**

 CONTRACTOR NOT TO EXCEED A 2% MAX SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES.

SCALE 1"=5'

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5' 10'

- 2. NO EXCAVATION IN THE AREAS OF EXISTING UTILITIES IS PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL MISS UTILITY" AT 1-800-552-7001, 48 HOURS PRIOR TO WORK.
- CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF EXCESS SOIL OR MATERIALS AT AN APPROVED LOCATION IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- AT ALL TIMES, CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE SYSTEM WITHIN THE PROJECT VICINITY AND ENSURE THAT NO DEBRIS ENTERS AND CAUSES DAMAGE, PER ARLINGTON COUNTY CODE 26.5C.
- 5. IF ANY CONTAMINATED SOILS IS FOUND DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR ALL WORK REQUIRED TO REMOVE AND REPLACE CONTAMINATED SOILS AND ADHERE TO THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.

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|   | © GRIMM AND PARKER ARCHITECTURE, INC. | 17 | 16 | 15 | 14 |
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| LOAD CALCULATIONS (AREAS) |                   |          |                       |                      |  |  |  |
|---------------------------|-------------------|----------|-----------------------|----------------------|--|--|--|
| DSS OR<br>NET             | OCCUPANCY<br>LOAD | OCC LOAD | EGRESS WIDTH<br>REQ'D | STAIR WIDTH<br>REQ'D |  |  |  |
|                           |                   |          |                       |                      |  |  |  |
|                           | 20                | 20       | 4.0                   | 6.0                  |  |  |  |
|                           | 19                | 20       | 3.9                   | 5.8                  |  |  |  |
| NET                       |                   |          |                       |                      |  |  |  |
| NET                       |                   |          |                       |                      |  |  |  |
| NET                       | 0                 | 1        | 0.1                   | 0.1                  |  |  |  |
| NET                       |                   | 1        |                       |                      |  |  |  |
| NET                       | 0                 | 1        | 0.1                   | 0.1                  |  |  |  |
|                           | 40                |          | 8.0                   | 12.0                 |  |  |  |
|                           | 40                |          | 8.0                   | 12.0                 |  |  |  |

| SETS<br>EMALE | LAVATORIES<br>MALE AND FEMALE                          | DRINKING FOUNTAINS                 | SERVICE SINK                          |
|---------------|--|------------------------------------|---------------------------------------|
| 00            | 1 PER 100  | 1 PER 1,000                        | 1 SERVICE SINK                        |
| OSET<br>OSET  | PROVIDED<br>1 LAVATORY<br>MALE<br>1 LAVATORY<br>FEMALE | 1 DRINKING<br>FOUNTAIN<br>PROVIDED | EXISTING<br>SERVICE SINK<br>TO REMAIN |
|               |  |                                    |                                       |

|   | 3   | 2   |
|---|---|---|
|   |   |   |
| PROJECT NAME AND LOCATION<br>NAME                           | 1425 UPGRADE (Q1)                                     |   |
| STREET ADDRESS<br>COUNTY                                    | 1425 NORTH QUINCY STREET<br>ARLINGTON                 |   |
| CITY, STATE   | ARLINGTON, VIRGINIA                                   |   |
| PROJECT DESCRIPTION:  | INTERIOR RENOVATION- PARTI                            | AL RENOVATION OF EXISTING COUNTY                            |
| APPLICABLE CODES<br>Building Code:                          | VIRGINIA UNIFORM STATEWIDE                            | E BUILDING CODE (VUSBC) 2015                                |
| Ĵ   | VIRGINIA EXISTING BUILDING C<br>VECC ENERGY CODE 2015 | ODE 2015  |
| Accessibility:  | AMERICANS WITH DISABILITY A                           | ACT ACCESSIBILITY GUIDELINES (ADAAG                         |
| BUILDING USE AND CONSTRUC                                   | AND ANSI A117.1 (2009)<br>TION CLASSIFICATIONS        |   |
| Use Group: S-1  | MODERATE HAZARD STC                                   | VUSBC Code<br>DRAGE 311.2                                   |
| Building Area:<br>Floor Area Ur                             | ider Construction                                     | 20,640 GSF  |
| Existing Build  | ing Totai   | 28,000 GSF  |
| Proposed Type of Construction<br>Allowable Building Height: | n: VUSBC TYPE IIB (NON C<br>VUSBC TABLE 504.3 =75'    | OMBUSTIBLE UNPROTECTED)<br>(MAX ALLOWABLE PER VCC 504.4), 3 |
| Actual Building Height:<br>Allowable Building Area:         | 22'-0"<br>VUSBC TABLE 506.2 (N                        | /AX ALLOWABLE PER VCC 506.2), 70,000                        |
| Existing Building Exterior Wall                             | Construction - double wythe CMU wall                  | no insulated  |
|   |   |   |
| JCCUPANCY LUADS AND EGRE                                    | Area in Sr. Et per Occupar                            | nt Earess Width Faress Width N                              |
| Location Calculated<br>WAREHOUSE EAST                       | Sq. Ft. Person Loa<br>9927 500 2                      | d Required Provided<br>0 32" 32"                            |
| WAREHOUSE WEST<br>WOMENS                                    | 9612 500 20<br>111.5 300                              | 0 32" 32"<br>0 32" 33"                                      |
| MENS<br>UTILITY SPACE                                       | 122.5 300<br>171.5300                                 | 0 32" 33"<br>0 32"33"                                       |
| STORAGE 1<br>MECH   | 161300<br>175.5 300                                   | 1 32"33"<br>1 32" 33"                                       |
| STORAGE 2<br>FIRE PROTECTION SYSTEM REC                     | 204 300<br>QUIREMENTS                                 | 1 32" 33"   |
| Automatic Sprinklers  | System<br>YES   | VCC<br>903.2.3  |
| Fire Alarm System<br>Smoke Detection System                 | YES<br>YES  | 907.2.3<br>VCC CHAPTER 9 / NFPA 72                          |
|   | ro  |   |
| NTERIOR FINISH REQUIREMEN<br>Per VCC Table 803.11           | ſS  |   |
| TRAVEL DISTANCE TO EXITS                                    |   | 100   |
| Maximum Length of Travel in F                               | Fully Sprinklered Building                            | VCC<br>250' (Table 1017.2)                                  |
| Maximum Length Common Pa                                    | th of Travel in Fully Sprinklered Building            | g 100' (Table 1006.2.1)                                     |
| Exit Access Door  |   | 100 (Table 1000.2.1)  |
| MINIMUM CORRIDOR WIDTH RE                                   | QUIREMENTS  | VCC   |
| 44 IN., EXIT CORRIDOR<br>36 IN., CLR. WITH OCCUPAN          | IT LOAD LESS THAN 50                                  | Table 1020.2<br>Table 1020.2                                |
| 44 IN., CLR. STAIR WIDTH<br>36 IN., CLR. WITH OCCUPAN       | IT LOAD LESS THAN 50                                  | 1011.2<br>EXCEPTION 1                                       |
|   |   |   |
| ALL DOORS SERVING MORE                                      | E THAN 50 & AT SMOKE BARRIER DO                       | OORS  |
| EMERGENCY LIGHTING REQUIR<br>Per IBC Code 1008 & NFPA 7     | EMENTS<br>9.14.2.9                                    |   |
|   |   |   |
|   | Rating Required                                       | VCC   |
| Exterior Bearing Walls Exterior Non-Bearing Walls           | 0   | TABLE 601, TABLE 602<br>TABLE 602                           |
| Fire Walls<br>Interior Bearing Walls                        | NA<br>0   | TABLE 706.4<br>TABLE 601                                    |
| Floor/ Ceiling Assemblies<br>Roof/ Ceiling Assemblies       | 0<br>0  | TABLE 601<br>TABLE 601                                      |
| Columns   | 0   | TABLE 601   |
| Egress Corridors  | 0   | TABLE 1020.1  |
| Snatts (Stairs)<br>Shafts Other than Stairs                 | 1<br>1  | 1023.2<br>713.4   |
| Corridor Doors<br>Smoke Barrier                             | 0<br>1  | 716.5.3, Table 1020.1<br>709.3                              |
| Smoke Partitions  | 0   | 710.3   |
| EGRESS WIDTH  |   |   |
| Egress width at stairs                                      |   | .2"/OCC. (1005.3.1)   |
| Egress width at doors and corr                              | idors   | .15"/OCC. (1005.3.2, Exceptio                               |
| NUMBER OF REMOTE EXITS REC                                  | QUIRED  |   |
| By Room   |   | VCC   |
| Rooms Less Than<br>Rooms with 50 - 5                        | 50 Occupants<br>00 Occupants                          | 1 Exit (Table 1006.2.1)<br>2 Exits (1006.2.1)               |
| Du Story  |   |   |
| <u>סוסר עם</u><br>1 - 500 Occupants                         |   | 2 Exits (Table 1006.3.1)                                    |
| 501 - 1000 Occup<br>More than 1000 O                        | ants<br>ccupants                                      | 3 Exits (Table 1006.3.1)<br>4 Exits (Table 1006.3.1)        |
| KEMUTENESS OF EXITS<br>VCC 1007.1.1 Exception 2 - 1         | /3 the Length of Maximum Room Diag                    | onal (Credit for Sprinklered Building)                      |
| MAXIMUM DEAD END DISTANCE                                   | S   |   |
| NOTES:  |   | 50 F I . (1020.4) Exception 2                               |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |

| SYMBOL   | KEY                          |   |
|--|------------------------------|---|
| ALLOWABLE # OCC.<br>REQ'D WIDTH<br>90<br>33"<br>ACTI | 5<br>UAL WIDTH<br>UAL # OCC. |   |
| 2 HOUR RATING<br>1 HOUR RATING<br>SMOKE PARTITION    |                              |   |
| 4  | 3                            | 2 |

![](_page_9_Figure_7.jpeg)

![](_page_10_Figure_0.jpeg)

![](_page_11_Figure_0.jpeg)

![](_page_11_Figure_8.jpeg)

![](_page_12_Figure_0.jpeg)

![](_page_12_Figure_1.jpeg)

![](_page_12_Figure_2.jpeg)

![](_page_12_Figure_3.jpeg)

![](_page_12_Figure_4.jpeg)

| 12 | 11 | 10 | 9 | 8 |
|----|----|----|---|---|
|    |    |    |   |   |

![](_page_13_Figure_0.jpeg)

![](_page_14_Figure_0.jpeg)

| 13 | 12 | 11 | 10 | 9 | 8 |
|----|----|----|----|---|---|
|    |    |    |    |   |   |

| 6 | 5 | 4 | 3 | 2 |
|---|---|---|---|---|
|   |   |   |   |   |

![](_page_15_Figure_0.jpeg)

![](_page_16_Figure_0.jpeg)

| 7 | 6 | 5 | 4 | 3 | 2 |
|---|---|---|---|---|---|
|   |   |   |   |   |   |

![](_page_17_Figure_0.jpeg)

## FINISH SCHEDULE

|         |                |       |      | WALLS  |     |        |     | CLG.  |                    |
|---------|----------------|-------|------|--------|-----|--------|-----|-------|--------------------|
| RM. NO. | NAME           | FLOOR | BASE | Α      | В   | С      | D   | MATL. | REMARKS            |
| 101     | WAREHOUSE EAST | CONC2 | RST  | PTD    | PTD | PTD    | PTD | EXGYP |                    |
| 102     | WAREHOUSE WEST | CONC2 | RST  | PTD    | PTD | PTD    | PTD | EXGYP |                    |
| 103     | STORAGE 2      | CONC2 | RST  | PTD    | PTD | PTD    | PTD | EXGYP |                    |
| 104     | MECHANICAL     | CONC2 | -    |        |     |        |     | EXGYP |                    |
| 105     | STORAGE 1      | CONC2 | RST  | PTD    | PTD | PTD    | PTD | EXGYP |                    |
| 106     | EX. UTILITY    |       | -    |        |     |        |     |       | NO WORK THIS SPACE |
| 107     | EX.VEST        |       | -    |        |     |        |     |       | NO WORK THIS SPACE |
| 108     | EX.JC          | -     | -    |        |     |        |     |       | NO WORK THIS SPACE |
| 109     | EX.TOILET      | -     | -    |        |     |        |     |       | NO WORK THIS SPACE |
| 111     | MEN'S          | СТ    | СТ   | CT/PNT | PTD | CT/PNT | PTD | EXGYP | 2, 3 ,J15/A701     |
| 112     | WOMEN'S        | СТ    | СТ   | CT/PNT | PTD | CT/PNT | PTD | EXGYP | 2, 3, J15/A701     |

![](_page_17_Figure_3.jpeg)

PARTIAL TILE ELEVATION

| 13 | 12 |  |
|----|----|--|
|    |    |  |

## SCHLUTER RONDEC EDGING AT TOP EDGE OF TILE. ENITRE LENGTH OF TILE WALLS. TYPICAL

- FLOOR LINE

| 10 9 8  | 3 7 6 5   | 4 3 2  |
|---|---|--|
| DOOR SCHEDULE   |   | DOORS NOT LISTED ON THE SCHEDULE SHALL HAVE THE TYPICAL FINISHES LISTED BELOW:   |
| DOOR           NOMINAL SIZE           DOOR NO.         WIDTH         HEIGHT         THK.         TYPE           1         3' - 0"         7' - 0"         1 3/4"         F           2         13' - 0"         13' - 6"         2"         S           3         13' - 0"         13' - 6"         2"         S           4         3' - 0"         7' - 0"         1 3/4"         F   | MATL         MATL         TYPE         FRAME         DOOR<br>LABEL<br>FIRE<br>RATING         HARDWARE<br>SET         HARDWARE<br>REMARKS           HM         HM         1         H9/A503         E6/502         816         1,2,4,11           MTL         H18/A503         D18/A502         9,10         9,10           MTL         H18/A503         D18/A502         9,10         9,10           HM         HM         1         H18/A503         D18/A502         9,10   | DOOR:       FRAME:         WIDTH:       3'-0"         MATERIAL: HM         HEIGHT:       7'-0"         THICKNESS:       1-3/4"         JAMB:       J1         TYPE:       F         MATERIAL: HM         MATERIAL: HM         DOOR LABEL:  |
| 5       3' - 0"       7' - 0"       1 3/4"       F         EX1       EXISTING DOOR TO REMAIN       F         EX2       EXISTING DOOR TO REMAIN       F         EX3       EXISTING DOOR TO REMAIN       F         EX4       EXISTING DOOR TO REMAIN       F         EX5       EXISTING DOOR TO REMAIN       F         EX6       EXISTING DOOR TO REMAIN       F         EX7       EXISTING DOOR TO REMAIN       F         EX8       EXISTING DOOR TO REMAIN       F         EX9       EXISTING DOOR TO REMAIN       F         EX10       EXISTING DOOR TO REMAIN       F         EX11       EXISTING DOOR TO REMAIN       F         EX12       EXISTING DOOR TO REMAIN       F | HM       HM       1       J1/A701       H1/A701       S1/A701       210       6   | <ol> <li>COORDINATE AND PROVIDE HARDWARE AS DETAILED IN THE SPECIFICATIONS OR, IF NOT SPEC<br/>(OF EQUAL QUALITY TO THAT SPECIFIED, AND MOST SIMILAR IN FUNCTION TO TYPE OF DOOR) R<br/>OPERATE AND APPEAR AS INTENDED ON DRAWINGS.</li> <li>PROVIDE BRUSHED STAINLESS STEEL KICK PLATES ON PUSH SIDE OF DOORS WITH PUSH BARS<br/>KICK PLATE SHALL BE INSET 1/2" FROM EACH SIDE OF DOOR, AND MAXIMUM 8" HIGH OR 1/2" BEL<br/>(IF PRESENT).</li> <li>PROVIDE EXPOSED HARDWARE WITH BRUSHED-IN FINISH AND "SILVER" METALLIC IN COLOR (AL<br/>STEEL).</li> <li>IF CONFLICT EXISTS BETWEEN DOOR RATING AS SCHEDULED AND WALL/PARTITION TYPE FIRE F<br/>PLANS, PROVIDE DOOR(S) WITH THE GREATER FIRE RATING OF THE TWO.</li> <li>VERIFY ALL DIMENSIONS AND CLEARANCES, AND COORDINATE UNDERCUTTING REQUIRED TO C<br/>MATERIALS.</li> <li>SEE FRAME ELEVATION FOR FRAME TYPES .</li> <li>IF A DISCREPANCY EXISTS BETWEEN THE DOOR SCHEDULE REMARKS AND THE HARDWARE SCI<br/>DEDICIDATION PORVIDE THE HARDWARE OF THE DOOR SCHEDULE REMARKS AND THE HARDWARE SCI<br/>DEDICIDATION PORVIDE THE HARDWARE DIFFERENCE THE RATING OF THE TAUK MODE OT DIMONTATION TYPE FIRE SCI<br/>PLANS, PROVIDE DOOR(S) WITH THE GREATER FIRE RATING OF THE TWO.</li> </ol> |
| HARDWARE  |   | <ol> <li>SPECIFICATIONS, PROVIDE THE HARDWARE NEEDED TO MEET THE MORE STRINGENT OF THE R</li> <li>SEE SPECIFICATIONS FOR SCHEDULED HARDWARE SETS.</li> <li>PROVIDE CONTINUOUS WEATHERSTRIPPING AND DOOR BOTTOM SEALS AT EXTERIOR DOORS A</li> <li>MINIMUM R VALUE 8, MAX AIR INFILTRATION OF 1.0 cfm/sq.ft AS NOTED IN THE SPECS</li> <li>DOOR TO HAVE AN R VALUE OF 1.64 MIN AND A MAX AIR INFILTRATION RATE OF 0.20 cfm/ft</li> </ol>  |
| SET 816Hinges BB1191-32D(ETW at center hinge)Hagar1Electrifed lockset ND96xDEU-RX-FSESchlage1Cylinder core- as requiredSchlage1Surface closer 4040XP-H-SCNSLCN1Closer mounting bracket 328SPB (field paint to match frame)Zero1Kick plate 8400Ives1 setWeather-stripping 110N - Head & JambsNational Guard1Threshold 896SNational Guard1Sill sweep 200N - pull sideNational Guard1Magnetic door contact 1076DIntergrator1Card Reader Security System IntegratorFunction: Card Reader shunts contact and releases electrified lever trim. TurningInside shunts door contact. Door position status monitored through Access ControlSystem                                       | SET 210       Hagar         1       Privacy Lock L9040 17A L583-363 L283-722       Schlage         1       Kick plate 8400 10°x2'LDW B-CS       Ives         1       Wall Stop WS406/407CVX       Ives         1       Silencer SR64       Ives   | <ul> <li>NOTES FOR REMARKS COLU</li> <li>NOTE: NOT ALL NOTES MAY BE USED ON THIS PROJECT. SEE SPECIFICATIONS FOR ADDITIONAL DOR<br/>REFERENCE SPECIFICATIONS FOR DETAILED HARDWARE REQUIREMENTS.</li> <li>PROVIDE ADA COMPLIANT CLOSER .</li> <li>PROVIDE PANIC HARDWARE.</li> <li>NOT USED.</li> <li>PROVIDE WEATHERSTRIPPING ON ALL SIDES, TOP AND BOTTOM OF DOOR.</li> <li>PROVIDE WEATHERSTRIPPING ON ALL SIDES, TOP AND BOTTOM OF DOOR.</li> <li>PROVIDE HARDWARE WITH PRIVACY SET.</li> <li>NOT USED.</li> <li>NOT USED.</li> <li>INSULATED COILING OVERHEAD DOOR.</li> <li>NOT USED.</li> <li>PROVIDE WITH CARD READER AND ASSOCIATED HARDWARE.</li> <li>SECURITY SYSTEM DOOR SWITCH AT HM FRAME - COORDINATE WITH ELECTRICAL.</li> </ul>   |
|   | HOLLOW METAL FRAME TYPES  | DOOR TYPES   |
|   | 2" AS SCHED. 2"<br>GHOSSE<br>1  | AS SCHED.<br>AS SCHED.<br>H<br>H<br>H<br>H<br>H<br>H<br>H<br>H<br>H<br>H<br>H<br>H<br>H  |
| PARTITION X2<br>WALL TILE<br>4" X 8" NEW CMU<br>NEW STEEL LINTEL<br>REFER TO STRUCTURAL<br>DRAWING FOR DETAIL   | TOILET ACCESSORIES  | TYPICAL TOILET ROOM NO   |
| GROUT FILLED<br>HOLLW METAL<br>FRAME  | ITEM<br>#ACCESSORY DESCRIPTIONREMARKS01SURFACE MOUNTED TOILET TISSUE<br>DISPENSERBOBRICK B-2888 Classic Series Surface Mounted Multi-roll<br>Toilet Tissue Dispenser02SURFACE MOUNTED SANITARY NAPKIN<br>DISPOSALBOBRICK B-270 - SEE PLANS FOR CONFIGURATION03GRAB BAR - 42"BOBRICK B-6806 42" - SEE PLANS FOR CONFIGURATION04SURFACE MOUNTED PAPER TOWEL<br>DISPENSERBOBRICK B-26205FRAMED MIRROR - 24'x36"BOBRICK B-165 243606SURFACE MOUNTED SOAP DISPENSERBOBRICK B-270 - SEE PLANS FOR CONFIGURATION07VERTICAL GRAB BAR - 18"BOBRICK B-270 - SEE PLANS FOR CONFIGURATION   | <ol> <li>ALL ACCESSORIES ARE SURFACE MOUNTED UNLESS NOTED OTHERWISE.</li> <li>NO SUBSTITUTIONS WILL BE PERMITTED FOR TOILET ACCESSORIES UNLESS WRITTEN APPROTHE OWNER.</li> <li>ALL GRAB BAR MOUNTING SHALL COMPLY W/ ADA REQUIREMENTS.</li> <li>WHERE TOILET ACCESSORIES FALL PARTIALLY ON THE CERAMIC TILE EITHER OMIT THE TILE UFFOR A FLUSH FIT OR PROVIDE CONTINUOUS WOOD BLOCKING.</li> <li>REFER TO PLUMBING PLANS FOR FLOOR DRAIN LOCATIONS.</li> <li>REFER TO PLUMBING PLANS AND SCHEDULE FOR TOILET FIXTURE TYPE LOCATIONS.</li> </ol>   |
|   |   | FIXTURE & ACCESSORY MOUNTING CRITERIA  |
| PARTITION X2<br>WALL TILE<br>WALL TILE<br>GROUT FILLED<br>HOLLW METAL<br>FRAME<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U<br>U   | (3) $(3)$ $(3)$ $(3)$ $(3)$ $(4)$ | ACCESSIBLE         ADULT ADA         FIXTURE       ADULT ADA         REMARKS         A       18 1/2"       TO TOP OF TOILET         B       25"       TO C/L OF TISSUE I         C       35" -       TOP OF GRAB BAR         D       40"       TO BOTTOM OF GF         E       40"       TO CENTERLINE C         KEY NOTES:       1) 42" GRAB BAR; 2) 42"         DISPENSER; 4) SANITARY NAPKIN DI       NDICATED ON PLANS) 7) VERTICAL         REFERENCE ANSII171.1-2009  |

![](_page_17_Figure_13.jpeg)

![](_page_17_Figure_14.jpeg)

![](_page_17_Figure_15.jpeg)

![](_page_17_Figure_16.jpeg)

| 13 | 12 | 11 | 10 | 9 |  |
|----|----|----|----|---|--|
|    |    |    |    |   |  |

![](_page_17_Figure_18.jpeg)

![](_page_17_Figure_19.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_19_Figure_0.jpeg)

![](_page_19_Figure_1.jpeg)

![](_page_19_Figure_2.jpeg)

# C10 PARTIAL DEMOLITION DETAIL

![](_page_19_Figure_16.jpeg)

| © GRIMM AND PARKER ARCHITECTURE, INC. | 17  | 16   | 15   | 14   | 13                                   | 12   | 11  | 10   | 9   | 8                  |
|---------------------------------------|---|--|--|--|--------------------------------------|--|---|--|---|--------------------|
|                                       | DESIGN NOTES  |  |  |  |                                      |  |   |  |   |                    |
|                                       | I. CODES AND STANDARDS<br>A. WORK SHALL BE IN ACC<br>EXISTING BUILDING COD                | ORDANCE WITH REQUIRE   | MENTS OF THE LOCAL BU                                      | IILDING DEPARTMENT, THE V                                | RGINIA                               | IV. STRUCTURAL STE<br>A. STRUCTURAL              | EEL<br>STEEL SHALL BE DESIGNED  | ). FABRICATED AND ERECTED II   | ACCORDANCE WITH "SPECIFICAT   | ΓΙΟΝ               |
|                                       | II. DESIGN AND LOADING CRIT   | ERIA   |  |  |                                      | FOR STRUCTURAL<br>B. STRUCTURAL                  | JRAL STEEL BUILDINGS AND<br>STEEL:  | THE "MANUAL OF STEEL CONS  | TRUCTION" FOURTEENTH EDITION  |                    |
|                                       | A. ALL CODES, REFERENCI<br>VERSION IS LISTED IN TH<br>B. SNOW LOAD                        | ES AND STANDARDS REFE<br>HE BUILDING CODE.   | RRED TO SHALL BE THE                                       | CURRENT VERSION UNLESS                                   | A DIFFERENT                          | 1. STRUCTUR<br>2. BALANCE<br>3. STRUCTUR         | RAL "W" & "I" SHAPES:<br>OF STRUCTURAL STEEL SHA<br>RAL PIPE:                     | APES & PLATES: ASTM<br>APES & PLATES: ASTM<br>ASTM   | A-992 FY = 50,000 PSI<br>A-36 FY = 36,000 PSI<br>A-53B FY = 35,000 PSI                  |                    |
|                                       | 1. GROUND SNOW LOA<br>2. SNOW EXPOSURE FA   | D: (PG) = 30.0 P<br>ACTOR (CE): = 1.0  | SF   |  |                                      | 4. HOLLOW S<br>5. HIGH STRE                      | STRUCTURAL SECTIONS SQUENGTH BOLTS:   | JARE & RECTANGULAR: ASTM<br>ASTM   | A-500B FY = 46,000 PSI<br>A-325 CONN TYPE-N   |                    |
|                                       | <ol> <li>IMPORTANCE FACTO</li> <li>THERMAL FACTOR (0</li> <li>FLAT ROOF SNOW L</li> </ol> | DR (I): = 1.0<br>CT): = 1.0<br>DAD (PF) <sup>:</sup> = 21.0 P.                     | SF   |  |                                      | 6. ANCHOR F                                      | RODS:<br>THREADED ROD <sup>.</sup>  | ASTM<br>WELD<br>ASTM   | F-1554 GR36 OR GR 55 WITH<br>ABILITY SUPPLEMENT S1.<br>A-36                             |                    |
|                                       | C. SEISMIC LOAD<br>1. RISK CATEGORY:  | =  |  |  |                                      | 8. SHEAR CC                                      | NNECTORS:   | ASTM<br>HEAD   | A-108, GRADES 1015 THRU 1020,<br>ED STUD TYPE.  |                    |
|                                       | 2. SEISMIC IMPORTANC<br>3. MAPPED SPECTRAL<br>4. SPECTRAL RESPONS                         | CE FACTOR (I): = 1.0<br>RESPONSE: SS = 0.1<br>SE COFFE S/DS = 0                    | 34, S/1= 0.043   |  |                                      | 9. GALVANIZI<br>C. CONNECTION<br>MANUAL CON      | ING (HOT-DIP):<br>S SHALL BE DESIGNED IN AC<br>INECTIONS SHALL BE MADE            | ASTM<br>CORDANCE WITH "BEAM CONN<br>USING HIGH STRENGTH BOI TS                                 | A-123<br>IECTIONS" AS DESCRIBED IN THE A<br>IN ACCORDANCE WITH ASTM A-32!               | AISC               |
|                                       | 5. SITE CLASSIFICATIO<br>6. SEISMIC DESIGN CA   | N: = D<br>TEGORY = A   | . 140, 0/D 1 - 0.000                                       |  |                                      | SHOP CONNEL<br>SECTIONS CO                       | CTIONS MAY BE WELDED IN<br>NNECTIONS SHALL BE DESI                                | LIEU OF BOLTING. WHERE REA<br>GNED FOR A MINIMUM OF 60%  | CTION NOT GIVEN ON PLANS AND<br>FOR FILLER BEAMS AND 70 % FOR                           | <i>.</i>           |
|                                       | <ol> <li>RESPONSE MODIFIC</li> <li>SEISMIC RESPONSE</li> <li>SEISMIC RESISTANC</li> </ol> | ATION FACTOR: R = 1.5<br>COEFF: CS = 0.0<br>E SYSTEM TYPE: = ORDIN                 | )1<br>JARY PLAIN MASONRY SH                                | IFAR WALLS   |                                      | GIRDERS OF N<br>SECTIONS FO<br>CONNECTION        | MAXIMUM BEAM CARRYING (<br>R OTHER THAN STANDARD (<br>AND TO SUPPORTING MEMI      | CAPACITY UNDER UNIFORM LO<br>CONNECTIONS. MINIMUM NUME<br>BER SHALL BE AS FOLLOWS <sup>.</sup> | AD FOR SPAN SHOWN. SEE PLANS .<br>ER OF BOLTS IN EACH OF BEAM W                         | AND<br>EB          |
|                                       | 10. ANALYSIS PROCEDU<br>D. WIND LOAD  | RE USED: = EQUIN   | VALENT LATERAL FORCE                                       | ANALYSIS   |                                      | (SECTIONS<br>D = 4" -                            | S; MC, C, S, M & WF)<br>6": 2 BOLTS HORIZONTA                                     | L  |   |                    |
|                                       | <ol> <li>ULTIMATE WIND SPE</li> <li>RISK CATEGORY:</li> <li>5 EXPOSURE:</li> </ol>        | ED: = 90/115 MPH<br>= II<br>= B  |  |  |                                      | D = 8" -<br>D = 12"<br>D = 16"                   | - 10": 2 BOLTS VERTICAL<br>- 15": 3 BOLTS VERTICAL<br>- 21": 4 BOLTS VERTICAL     |  |   |                    |
|                                       | 4. INTERNAL PRESSUR<br>E. FLOOR & ROOF DESIGN   | E COEFF: = +/- 0.18<br>MINIMUM LIVE LOADS:   |  |  |                                      | BOI<br>D. ALTERNATE C                            | LT SPACING SHALL BE 3" O/C<br>CONNECTIONS TO THOSE SH                             | C.<br>OWN ON PLANS AND DETAILS \   | VILL BE ALLOWED ONLY WITH THE   |                    |
| К                                     | 1. STAIRS: = 1<br>2. ROOFS: = 3<br>F. EARTH PRESSURE (ASS                                 | 00 PSF<br>0 PSF IN ADDITION TO APF<br>UMED)  | PLICABLE SNOW DRIFTING                                     | G CONSIDERATION.   |                                      | APPROVAL OF<br>WITH CONTRA<br>UNDER THE S        | - THE ARCHITECT. IF SUCH A<br>ACT DOCUMENTS (FABRICAT<br>EAL OF LICENSURE OF THE  | APPROVAL IS GRANTED, CONN<br>OR'S REDESIGN) SHALL BE SUI<br>FABRICATOR'S ENGINEER FOR          | ECTIONS, ETC. NOT IN ACCORDANC<br>BMITTED WITH SHOP DRAWINGS<br>THE LOCAL JURISDICTION. | )E                 |
|                                       | 1. DESIGN LATERAL PR<br>2. DESIGN LATERAL PR  | ESSURE FOR RETAINING   | WALLS = 45 PSF<br>WALLS = 60 PSF                           |  |                                      | E. UNLESS OTHE<br>AS THE TIGHT                   | RWISE NOTED, A-325 BOLTS<br>NESS ATTAINED BY A FEW I                              | S SHALL BE TIGHTENED TO THE<br>MPACTS OF AN IMPACT WRENC                                       | "SNUG TIGHT" CONDITION DEFINE<br>H OR THE FULL EFFORT OF A MAN                          | D                  |
|                                       | G. EXISTING LIVE LOAD CA<br>1. TEMPORARY SHORIN<br>CONTRACTOR'S WOI                       | PACITIES<br>NG AND/OR BRACING SHAL<br>RK EXCEEDS THE ALLOWA                        | L BE PROVIDED WHERE  | /ER THE LOADING FROM THE<br>F THE EXISTING STRUCTURE     |                                      | USING AN ORI<br>CONNECTED I<br>F. WELDING SHA    | DINARY SPUD WRENCH. THE<br>MATERIAL HAVE BEEN BROU<br>ALL CONFORM TO REQUIREN     | SNUG-TIGHT CONDITION MUS<br>JGHT INTO FIRM CONTACT.<br>MENTS OF THE "STRUCTURAL W              | ENSURE THAT THE PLIES OF THE  | 70                 |
|                                       | III. CONCRETE AND REINFORC  | ING<br>I BE IN ACCORDANCE WIT  | TH "BUII DING CODE REQU                                    | JIREMENTS FOR STRUCTURA                                  | CONCRETE"                            | KSI LOW-HYDI<br>G. GROUT UNDE                    | ROGEN ELECTRODES.<br>R BEAM BEARING PLATES AI                                     | ND COLUMN BASE PLATES SHA  | LL BE NON-SHRINK, NON-METALLIC  | )                  |
|                                       | ACI 318. AS MODIFIED B<br>B. CONCRETE DESIGN IS IN  | Y IBC CODE.<br>NACCORDANCE WITH "STF   | RENGTH DESIGN METHO  | )."  |                                      | H. UNLESS GALV<br>ONE SHOP CC                    | ANIZED OR TO RECEIVE SPI<br>ANIZED OR TO RECEIVE SPI<br>AT AND ONE FIELD TOUCH-   | RAY-APPLIED FIREPROOFING, S<br>UP COAT OF RUST-INHIBITING F                                    | TRUCTURAL STEEL SHALL RECEIV<br>AINT AFTER ERECTION.                                    | Έ                  |
|                                       | C. [ALL CONCRETE EXPOSI<br>COMPRESSIVE STRENG<br>CONCRETE STRENGTH I                      | ED TO FREEZE THAW SHAI<br>TH OF CONCRETE AT 28 D<br>EVERYWHERE IE POSSIBI I        | LL BE MINIMUM 4500 PSI \<br>AYS (F'C) ELSEWHERE SH<br>F1   | WITH MAX W/C RATIO 0.45. UL<br>HALL BE: [RECOMMEND USING | FIMATE<br>S ONE                      | I. UNLESS NOTE<br>BEARING AND                    | ED OTHERWISE ON PLANS AN<br>SHALL BE PROPORTIONED                                 | ND DETAILS ALL STEEL LINTELS<br>AS FOLLOWS FOR EACH 4" OF '                                    | SHALL HAVE A MINIMUM OF 8"<br>WALL WIDTH.   |                    |
|                                       | <ol> <li>SPREAD FOOTINGS:</li> <li>SLABS ON GRADE:</li> </ol>                             | = 3,500 l<br>= 3,500 l   | PSI<br>PSI   |  |                                      | <u>OPENII</u><br>UP TO<br>4'-1" TC               | <u>NG SIZE LINTEL</u><br>4'-0" L 4 X 3-1/2<br>) 5'-0" L 5 X 3-1/2                 | <u>-</u><br>X 5/16<br>X 5/16   |   |                    |
|                                       | <ol> <li>FOUNDATION WALLS</li> <li>RETAINING WALLS</li> <li>SIDEWALKS AND PAV</li> </ol>  | 5: = 4,000  <br>= 4,500  <br>/EMENTS = 4,500                                       | PSI<br>PSI<br>PSI  |  |                                      | 5'-1" TC<br>J. NO FABRICAT                       | ) 6'-0" L 5 X 3-1/2<br>ION SHALL PROCEED PRIOR                                    | X 3/8<br>TO SHOP DRAWINGS APPROV   |   |                    |
|                                       | D. CONCRETE MATERIALS:<br>1. CEMENT: AS   | TM C-150 TYPE I OR III   |  |  |                                      | L. SPLICING OF S<br>PROHIBITED V                 | STRUCTURAL STEEL MEMBE  | RS WHERE NOT DETAILED ON<br>OF THE ARCHITECT AS TO LOC   | THE CONTRACT DOCUMENTS IS<br>ATION, TYPE OF SPLICE AND                                  |                    |
|                                       | 2. CEMENT SUBSTITUT<br>3. AGGREGATES:<br>4. AIR-ENTRAINING ADI                            | ES: ASTM C-595 TYPE '1P'<br>ASTM C-33 (NORMAL V<br>MIX: ASTM C-260                 | (LIMIT TO 25% MAXIMUM<br>WEIGHT)                           | CEMENTITIOUS CONTENT BY                                  | WEIGHT.)                             | CONNECTION<br>M. ALL EXTERIOF                    | TO BE MADE.<br>R EXPOSED (INCLUDING IN E  | XTERIOR WALL WYTHE'S) STRU   | ICTURAL STEEL SHAPES, PLATES A  | AND                |
| н                                     | 5. PREFORMED JOINT F<br>6. JOINT SEALANT:   | FILLER: ASTM D-994<br>ASTM D-1190  |  |  |                                      | INCLUDING FI                                     | ELD WELDS.<br>IT OF STRUCTURAL STEEL S  | HOP DRAWINGS SHALL BE SUF  | ERVISED BY A REGISTERED   |                    |
|                                       | F. CONCRETE EXPOSED TO<br>F. CONCRETE SHALL BE TH<br>INTO CORNERS OF FOR                  | J WEATHER SHALL BE AIR<br>HOROUGHLY COMPACTED<br>MS.                               | DURING PLACEMENT AN  | D WORKED AROUND EMBEDI                                   | ED ITEMS AND                         | PROFESSION<br>APPLICATION<br>HOLES AND C         | AL ENGINEER REGISTERED I<br>AND ASSEMBLY OF ALL STR                               | N PROJECT JURISDICTION AND<br>CUCTURAL MEMBERS. INCLUDE  | SHALL INCLUDE DETAILS FOR<br>DETAILS OF CUTS, CONNECTIONS                               | <b>;</b> ,         |
|                                       | G. CONTRACTOR SHALL BE<br>ACCURATELY LOCATED  | E RESPONSIBLE FOR ALL I<br>AND SECURE.   | TEMS EMBEDDED IN CON                                       | CRETE AND SHALL ENSURE 1                                 |                                      | LENGTH AND<br>APPROVAL.                          | TYPE OF EACH WELD. SHOP   | DRAWINGS SHALL BE SUBMIT   | ED TO THE ARCHITECT FOR   |                    |
|                                       | ELECTRICAL WORK SHA<br>ARCHITECTURAL DRAW   | LUCATED FROM ARCHIT<br>LL BE COORDINATED WITH<br>INGS. WHERE NOT INDICA            | H MECHANICAL, PLUMBIN<br>TED ON STRUCTURAL PL              | G AND ELECTRICAL ENGINEE<br>ANS, SLAB PENETRATIONS SH    | RING AND<br>RING AND<br>IALL BE MADE | O. ALL MISCELLA<br>WELD UNLESS<br>P. HANDRAILS G | NEOUS STEEL CONNECTION<br>S OTHERWISE NOTED, EXCE                                 | NS SHALL BE WELDED ALL ARO<br>PT FOR SLOTTED CONNECTION<br>SHALL BE DESIGNED BY THE M          | UND WITH ONE-QUARTER-INCH FIL<br>IS.<br>ANNEACTURER'S ENGINEER FOR T                    | LET                |
| G                                     | NO CLOSER THAN 2'-0" T<br>I. DO NOT BACKFILL AGAIN  | TO COLUMN FACE IN FLAT-<br>NST WALLS UNTIL CONCRE                                  | SLAB CONSTRUCTION.<br>TE HAS ACHIEVED 75% (                | DF 28 DAY STRENGTH WHETH                                 | ER OR NOT                            | MOST RESTRI<br>COMBINED PC                       | CTIVE OF THE LOADS GIVEN<br>OST/RAILING DEFLECTION EX                             | AND APPLICABLE DESIGN COE<br>(CEED 0.75", THE LIMITS IN AST                                    | E. IN NO CASE SHALL TOTAL<br>M E985 OR LIMITATION OF MATERIA                            | AL                 |
|                                       | J. KEEP HEAVY CONSTRUC<br>K. EXPOSED CONCRETE W   | CTION EQUIPMENT AWAY F<br>ALLS SHALL HAVE CONTR                                    | FROM WALLS, DISTANCE<br>OL JOINTS AT 20 FEET (N            | OF WALL HEIGHT.<br>IAX) ON CENTERS EQUALLY S             | PACED AS                             | USED AS INFIL<br>PROFESSION<br>MEMBERS AN        | L, WHICHEVER IS MORE RE<br>AL ENGINEER REGISTERED I<br>D CONNECTIONS              | STRICTIVE. SUBMIT SHOP DRANN<br>N THE PROJECT JURISDICTION                                     | VINGS BEARING THE SEAL OF A<br>TO THE ARCHITECT INDICATING AI                           | LL                 |
|                                       | INDICATED.<br>L. CONCRETE SLUMP SHAI  | LL = 4" PLUS OR MINUS 1".  |  |  |                                      | Q. PROVIDE A MI<br>R. FULL PENETR                | NIMUM BEARING LENGTH OI<br>ATION WELDS SHALL BE MA                                | F 6" FOR ALL BEAMS SUPPORTE<br>DE AGAINST A 1/8" X 1" BACKEF                                   | ED ON MASONRY.<br>PLATE TACK WELDED IN PLACE  |                    |
|                                       | PSI, AND HAVE A MINIMU<br>WALL WIDTH.   | JM BEARING WIDTH OF 8".  | LINTELS SHALL BE PROP                                      | ORTIONED AS FOLLOWS FOR                                  | EACH 4" OF                           | BELOW THE W<br>JOINED.<br>S CONTRACTOR           | VELD. PENETRATION WELDS   | SHALL BE EQUIVALENT IN DEP   | TH AND LENGTH TO THE PARTS  |                    |
|                                       | OPENING SIZE DE<br>UP TO 4'0" 8   | PTH         REINFORCEMENT           3"         1 #4, T&B           4"         1 #4 |  |  |                                      | MEMBERS AR<br>BEFORE RELE                        | E SECURE WITH AT LEAST (2<br>ASING CABLES.  | 2) BOLTS. ALL FIELD WELDED C   | ONNECTIONS SHALL BE COMPLET   | ED                 |
| F                                     | 6'1" TO 8'0" 8<br>8'1" TO 10'0" 8   | 3" 1 #5, T&B<br>3" 1 #6, T&B   |  |  |                                      | T. WHERE DOUB<br>OVER A COLU<br>BEAM CONNE       | LE BEAM CONNECTIONS OC<br>MN, THERE MUST BE AT LEA<br>CTED AT ALL TIMES           | CUR ON EACH SIDE OF A COLU   | MN WEB OR TO THE WEB OF A BEA<br>-TIGHT NUT SECURING THE FIRST                          | ٨M                 |
|                                       | N. PROVIDE KEYED JOINTS<br>JOINTS.  | BETWEEN ALL NON-MON  |  | ONCRETE WALLS AND ALL C                                  |                                      | V. POST-INSTALLED                                | ANCHORS   |  |   |                    |
|                                       | COMPRESSIVE STRENG<br>P. FORM CONTRACTION JC  | TH AT 28 DAYS OF 7,000 P<br>DINTS WITH AN EARLY ENT                                | SI. PREGROUTING OF BAS<br>RY DRY-CUT SAW EQUIP             | SE PLATES SHALL NOT BE PE<br>PED WITH SHATTERPROOF A     | RMITTED.<br>BRASIVE OR               | A. EXCEPT WHEI<br>ANCHOR TYPE<br>1 ANCHORA       | RE INDICATED ON THE DRAV<br>ES AS PROVIDED BY HILTI, IN<br>GE TO CONCRETE         | VINGS, POST-INSTALLED ANCH<br>IC. OR AN EQUIVALENT MANUF                                       | ORS SHALL CONSIST OF THE FOLL<br>ACTURER APPROVED BY THE ARCH                           | OWING<br>HITECT.   |
|                                       | DIAMOND-RIMMED BLAD<br>ABRADE, OR OTHERWIS<br>IN NO CASE LATER THAN                       | ES. CUT 1/8-INCH WIDE JO<br>E DAMAGE SURFACE AND<br>A HOURS AFTER START (          | DINTS INTO CONCRETE W<br>BEFORE CONCRETE DE                | HEN CUTTING ACTION WILL N<br>ELOPS RANDOM CONTRACT       | OT TEAR,<br>ON CRACKS, BUT           | A) ADHES<br>(1) HIL                              | IVE ANCHORS FOR CRACKE<br>TI HIT-RE 500-SD EPOXY ADI                              | D AND UNCRACKED CONCRETI<br>HESIVE ANCHORING SYSTEM P  | E USE ONE OF THE FOLLWING:<br>ER ICC ESR-2322 FOR SLOW CURE                             |                    |
|                                       | Q. REINFORCING BARS #3<br>AND PLAIN BILLET STEE   | THRU #11 SHALL BE DEFO<br>L BARS FOR CONCRETE R                                    | RMED AND IN ACCORDAN<br>EINFORCEMENT" ASTM A               | ICE WITH "SPECIFICATIONS F<br>-615. GRADE 60 KSI. WHERE  | DR DEFORMED<br>INDICATED,            | API<br>SLC<br>(2) HIL                            | PLICATIONS, DEWALT/POWE<br>DW CURE APPLICATIONS, (O<br>TI HIT-HY 200 SAFE SET SYS | R PURE 110+ EPOXY ADHESIVE<br>R EQUAL).<br>TEM WITH HILTI HIT-Z ROD (OR                        | ANCHORING SYSTEM PER ICC SR-  | 3298 FOR           |
| E                                     | EPOXY COAT BARS IN A<br>R. SUBMIT SHOP DRAWING<br>SUPERVISION OF A PRO                    | CCORDANCE WITH ASTM A<br>SFOR REINFORCEMENT 1<br>FESSIONAL STRUCTURAL              | A-775.<br>FO THE ARCHITECT FOR /<br>ENGINEER REGISTERED    | APPROVAL. PREPARE DRAWI                                  | IGS UNDER THE<br>DETAILING           | (3) HIL  | PLICATIONS<br>TI HIT-HY 200 SAFE SET SYS  | TEM WITH HILTI HOLLOW DRILL  | BIT SYSTEM WITH HAS-E THREAD  | ED ROD (OR         |
|                                       | FABRICATING, BENDING<br>SP-66, SHOWING BAR SC   | , AND PLACING CONCRETE<br>CHEDULES, STIRRUP SPAC                                   | E REINFORCEMENT. COM<br>CING, BENT BAR DIAGRAM             | PLY WITH ACI 315 AND ACI DE<br>IS, AND ARRANGEMENT OF C  | TAILING MANUAL<br>DNCRETE            | 2. REBAR DC<br>A) ADHES                          | WELING INTO CONCRETE  | D AND UNCRACKED CONCRET  | EUSE ONE OF THE FOLLOWING:  |                    |
|                                       | REINFORCEMENT. INCLU<br>S. WELDED WIRE FABRIC N<br>WIRE REINFORCEMENT                     | JDE SPECIAL REINFORCIN<br>IOTED "WWF" SHALL BE IN<br>PLAIN FOR CONCRETE" A         | G REQUIRED FOR OPENI<br>ACCORDANCE WITH "ST<br>ASTM A-1064 | NGS THROUGH CONCRETE S<br>ANDARD SPECIFICATION FOR       | RUCTURES.<br>STEEL WELDED            | (1) HIL<br>REF                                   | TI HIT-HY 200 SAFE SET SYS<br>BAR PER ICC ESR-3187                                | TEM WITH HILTI HOLLOW DRILL  | BIT SYSTEM WITH CONTINUOUSLY  |                    |
|                                       | T. BARS MARKED CONTINU<br>DEFINED IN ACI 318, MIN   | JOUS (CONT) SHALL BE LA<br>IMUM 50 BAR DIAMETERS,                                  | PPED IN ACCORDANCE W<br>UNLESS INDICATED OTH               | /ITH REQUIREMENTS FOR SP<br>ERWISE. COLUMN VERTICAL      | LICES AS<br>REINFORCING              | (2) HIL<br>ICC<br>DEF                            | ESR-2322, DEWALT/POWER  | S PURE 110+ EPOXY ADHESIVE<br>R-3298, (OR EQUAL).  | ANCHORING SYSTEM WITH CONTI   | EBAR PER           |
|                                       | SHALL BE SPLICED AS S<br>U. BAR LENGTHS SHOWN (<br>HOOK UNLESS DETAILEI                   | HOWN IN COLUMN DE FAIL<br>ON PLAN DO NOT INCLUDE<br>D OTHERWISE.                   | .S.<br>LENGTH OF HOOK WHEF                                 | RE A HOOK IS INDICATED. PRO                              | VIDE STANDARD                        | 3. ANCHORA<br>A) ADHES                           | GE TO SOLID GROUTED MAS<br>IVE ANCHORS USE:                                       | SONRY:   |   | CONDY              |
|                                       | V. UNLESS SHOWN OTHER<br>1. SLABS TO 6" THICK   | WISE PROVIDE MINIMUM T<br>#4 @ 16"O.C  | EMPERATURE REINFOR   | CING IN ONE-WAY SLABS AS F                               | OLLOWS:                              | (1) HIL<br>ADI<br>(2) STE                        | HESIVE ANCHORING SYSTEM   | L BE HILTI HAS-E CONTINUOUS  | EWALT/POWERS AC 100+GOLD MAS<br>L.).<br>SLY THREADED ROD, ASTM GRADE                    | 36                 |
|                                       | 2. SLABS 6 1/2" TO 9" T<br>3. SLABS 9 1/2" TO 12" 1<br>W. WHERE NOTED PROVIDE             | HICK #4 @ 12"0.C<br>[HICK #5 @ 12"0.C<br>E MICROFIBER SLAB REINF                   | FORCING, 3 LBS PER CUB                                     | IC YARD OF CONCRETE. MICF                                | OFIBER SHALL                         | B) MECHA   | ANDARD THREADED ROD, OF<br>ANICAL ANCHORS USE:                                    |  |   |                    |
|                                       | BE IN ACCORDANCE WIT<br>X. PROVIDE WWF 6 X 6 W2.  | TH ASTM C-1116.<br>9 X W 2.9 IN TOP 1/3 OF AL                                      | L SLAB ON GRADE U.N.O.                                     | ALL MESH EDGES SHALL LAP                                 | A MINIMUM OF                         | (1) HIL<br>PEF<br>(2) HIL                        | R ICC ESR-1678, (OR EQUAL)<br>TI KWIK BOLT-3 EXPANSION                            | ANCHORS PER ICC ESR 1385, E  | EWALT/POWERS WEDGE-BOLT+SCREW   |                    |
|                                       | Y. MINIMUM CONCRETE CC<br>1. CONCRETE CAST AG   | OVER BETWEEN FACE OF F<br>GAINST EARTH = 3"  | REINFORCING BAR AND F                                      | ACE OF CONCRETE SHALL BE                                 | AS FOLLOWS:                          | 4. ANCHORA                                       | PANSION ANCHOR PER ICC E<br>GE TO HOLLOW / MULTI-WYT                              | ESR-2966, (OR EQUAL).<br>THE MASONRY:  |   |                    |
| С                                     | <ol> <li>FORMED CONCRETE</li> <li>FORMED CONCRETE</li> <li>A) SLAPS AND LOIST</li> </ol>  | EXPOSED TO WEATHER (<br>NOT EXPOSED TO WEATH                                       | OR EARTH = 2"<br>HER:                                      |  |                                      | (1) HIL<br>(1) HIL                               | TI HIT-HY 70 MASONRY ADHI<br>DLD MASONRY ADHESIVE AN                              | ESIVE ANCHORING SYSTEM PEN<br>NCHORING SYSTEM PER ICC ES                                       | R ICC ESR-3442, DEWALT/POWERS<br>R-3200, (OR EQUAL).                                    | AC100              |
|                                       | B) BEAMS, COLUMN<br>Z. PROVIDE CORNER BARS  | S = 3/4<br>S = 1-1/2"<br>S AT ALL WALL INTERSECT                                   | IONS WITH SIZE AND SPA                                     | CING TO MATCH HORIZONTA                                  | _ WALL                               | (2) STE<br>STA<br>(3) THE                        | EEL ANCHOR ELEMENT SHAI<br>ANDARD THREADED ROD, OF<br>APPROPRIATE SIZE SCREE      | L BE HILTI HAS-E CONTINUOUS<br>R CONTINUOUSLY DEFORMED S<br>IN TUBE SHALL BE USED PER A        | SLY THREADED ROD, ASTM GRADE<br>STEEL REBAR.<br>DHESIVE MANUEACTURER'S                  | 36                 |
|                                       | REINFORCEMENT.<br>AA. RIGID INSULATION SUF  |  | E SLABS SHALL HAVE THI                                     | E FOLLOWING MINIMUM PROF                                 | ERTIES:                              | B. SUBSTITUTIOI                                  | COMMENDATION<br>N REQUESTS FOR ALTERNA  | TE POST INSTALLED ANCHOR F   | RODUCTS MUST BE APPROVED IN   | WRITING BY         |
|                                       | 2. COMPRESSIVE STRE<br>3. ELASTIC MODULUS:  | NGTH: 50 PSI (@10% DEFC<br>1500 PSI  | ORMATION PER ASTM D-1                                      | 621)   |                                      | THE ARCHITE<br>SUBSTITUTED                       | CT PRIOR TO USE. CONTRAC<br>PRODUCT IS CAPABLE OF A                               | CTOR SHALL PROVIDE CALCULA<br>ACHIEVING THE PERFORMANCE  | TIONS DEMONSTRATING THAT THI<br>VALUES OF THE SPECIFIED PROD                            | E<br>UCT.<br>EVANT |
|                                       | <ol> <li>FLEXURAL STRENGT</li> <li>DENSITY: 2.4 PCF</li> </ol>                            | TH: 60PSI  |  |  |                                      | BUILDING COL<br>COMPREHENS                       | DE FOR SEISMIC USES, LOAD<br>SIVE INSTALLATION INSTRUC                            | D RESISTANCE, INSTALLATION (<br>CTIONS. ADHESIVE ANCHOR EV                                     | CATEGORY, AND AVAILABILITY OF<br>ALUATION WILL ALSO CONSIDER C                          | REEP, IN-          |
| В                                     |   |  |  |  |                                      | SERVICE TEM<br>C. INSTALL ANCH<br>D. OVERHEAD AT | PERATURE AND INSTALLATI<br>IORS PER THE MANUFACTU<br>DHESIVE ANCHORS MUST P       | ON TEMPERATURE.<br>RER INSTRUCTIONS, AS INCLUI<br>E INSTALLED USING THE HILT F                 | DED IN THE ANCHOR PACKAGING.<br>ROFI SYSTEM (OR FOLIAL)                                 |                    |
|                                       |   |  |  |  |                                      | E. THE CONTRAC<br>INSTALLATION                   | CTOR SHALL ARRANGE AN A<br>TRAINING FOR ALL OF THE                                | NCHOR MANUFACTURER'S REF<br>IR ANCHORING PRODUCTS SPE  | PRESENTATIVE TO PROVIDE ONSIT   | E<br>MATION        |
|                                       |   |  |  |  |                                      | THAT ALL OF<br>OF INSTALLIN<br>F ANCHOR CAP      | THE CONTRACTOR'S PERSO<br>G ANCHORS.<br>ACITY IS DEPENDENT LIPON                  | SPACING BETWEEN AD LACENT  | ARE TRAINED PRIOR TO THE COM  | ILENCEMENT         |
|                                       |   |  |  |  |                                      | EDGE OF CON<br>DRAWINGS                          | ICRETE. INSTALL ANCHORS   | IN ACCORDANCE WITH SPACIN  | G AND EDGE CLEARANCES INDICA  | TED ON THE         |
|                                       |   |  |  |  |                                      | G. CONCRETE A<br>COMPRESSIVI                     | E STRENGTH OF 2500 PSI.   | ATION SHALL HAVE A MINIMUM   | AGE OF ZI DAYS AND A MINIMUM  |                    |
| A1                                    | 17  | 16   | 15   | 14   | 13                                   | 12   | 11  | 10   | Q   | Q                  |
|                                       |   |  |  | די   |                                      | 12   | • •   |  |   | 0                  |

- H. CONCRETE SHALL BE AT LEAST 50 DEGREES AT THE TIME OF ANCHOR INSTALLATION.
- I. CONCRETE AT INDOOR ANCHOR APPLICATIONS SHALL BE DRY AT THE TIME OF ANCHOR INSTALLATION. J. EXISTING REINFORCING BARS, EMBEDDED CONDUIT OR OTHER ITEMS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH PROPOSED ANCHOR LOCATIONS. THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL LOCATE THE POSITION OF THE REINFORCING BARS OR ANY OTHER EMBEDDED ITEMS AT THE LOCATIONS OF THE CONCRETE ANCHORS. BY HILTI FERROSCAN. GPR. X-RAY PACHOMETER. CHIPPING OR OTHER MEANS. MARK THE EXISTING REBAR OR OTHER ITEMS LOCATIONS AND THE PROPOSED ANCHOR LOCATIONS ON THE CONCRETE STRUCTURE AND NOTIFY THE ARCHITECT IF THERE APPEARS TO BE A CONFLICT. EXERCISE CARE IN CORING OR DRILLING TO AVOID DAMAGING EXISTING REINFORCING OR EMBEDDED ITEMS BY FIRST DRILLING A SMALL PILOT HOLE. NOTIFY THE ARCHITECT IF REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED DURING DRILLING. TAKE PRECAUTIONS AS NECESSARY TO ALSO AVOID DAMAGING ANY ACTIVE ELECTRICAL AND TELECOMMUNICATIONS CONDUIT.
- K. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION
- L. ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION. M. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICAL OVERHEAD ORIENTATIONS TO SUPPORT
- SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI (ACI 318-11 D.9.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
- N. PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE BUILDING CODE AND PER THE CURRENT ICC-ES REPORT (IBC 2012 TABLE 1705.3 NOTE B).

## VI. STEEL STAIRS

- A. ALL STEEL STAIR STRINGERS SHALL BE CONTINUOUS MC 12 X 10.6 MINIMUM, UNLESS NOTED OTHERWISE. STRINGERS SHALL BE MITERED AND WELDED WITH FULL PENETRATION WELDS.
- B. PLATFORMS SHALL HAVE MINIMUM 10-GAUGE FLOOR PLATES WITH L 2 X 2 X 1/4 MINIMUM, SHELF ANGLES ON ALL UNSUPPORTED SIDES. PLATFORM PLATES SHALL HAVE SUPPORTS SPACED AT 18" O.C. MAXIMUM. SUPPORTS SHALL BE L 2\_1/2 X 2-1/2 X 1.4 OR WT 3 X 4.25 MINIMUM.
- C. TREAD AND RISER PLATES SHALL BE 10-GAUGE MINIMUM.
- D. ALL STEEL STAIRS ARE TO BE PRE-ENGINEERED BY THE CONTRACTOR'S FABRICATOR FOR THE LOADS GIVEN AND ALL APPLICABLE CODES WITH SHOP DRAWINGS STAMPED BY THE MANUFACTURER'S REGISTERED IN THE PROJECT JURISDICTION PROFESSIONAL ENGINEER AND SUBMITTED TO THE ARCHITECT FOR APPROVAL.

## VII. MASONRY

- A. MASONRY SHALL BE DESIGNED, MANUFACTURED AND ERECTED IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", (ACI 530/ASCE 5/TMS 402); AND "SPECIFICATIONS FOR MASONRY STRUCTURES", (ACI 530.1/ASCE 6/TMS 602).
- B. MASONRY INSPECTION FOR QUALITY ASSURANCE SHALL BE LEVEL B AS DEFINED IN THE MASONRY
- SPECIFICATIONS. C. UNIT SPECIFICATIONS:
- 1. LOAD-BEARING, HOLLOW OR SOLID CMU: ASTM C- 90
- 2. MIN COMPR STRENGTH ON NET AREA = 1,900 PSI
- 3. USE TYPE "SW" WHERE UNITS ARE EXPOSED TO WEATHER OR ARE BELOW GROUND SURFACE. OTHER AREAS SHALL BE UNITS TYPE "MW".
- 4. MORTAR TYPE "M" OR "N": ASTM C-270
- 5. USE TYPE "N" WHERE EXPOSED TO WEATHER AND TYPE M BELOW GROUND SURFACE. ALL OTHER AREAS SHALL BE OF TYPE "M".
- 6. GROUT FOR BEAM BEARING AND COLUMN BASE PLATES:
- A) NON-SHRINK NON METALLIC ASTM C-1107 GRADE "C", F'C = 7,000 PSI. 7. GROUT FOR FILLING CELLS OF MASONRY & BOND BEAMS:
- A) ASTM C-476 COARSE. F'C = 2,500 PSI
- D. DESIGN MINIMUM STRENGTH F'M=1500 PSI
- E. WYTHE'S OF MASONRY WALLS SHALL BE BONDED TOGETHER EACH 16" VERTICALLY (TWO BLOCK COURSES) USING CONTINUOUS HORIZONTAL WALL REINFORCING.
- F. CONTINUOUS HORIZONTAL WALL REINFORCING SHALL BE TRUSS TYPE, BUTT WELDED SIDE AND WEB BARS OF GALVANIZED W1.7 WIRES. PROVIDE PREFABRICATED CORNERS AND TEES FOR WALL INTERSECTIONS. LAP 6" AT
- SPLICES. G. PROVIDE MASONRY ANCHORS AT 16" O.C. SET ON COURSING AND ATTACHED TO ALL BEAMS AND COLUMNS
- EMBEDDED IN MASONRY. H. FILL MASONRY UNIT CELLS WITH COARSE GROUT WHERE CELLS CONTAIN REINFORCEMENT.
- I. PROVIDE BOND BEAM COURSE WHERE SHOWN. BOND BEAM SHALL BE 8" DEEP MINIMUM U.N.O. FILLED WITH COARSE GROUT AND REINFORCED WITH 2 #4 U.N.O. CONTINUOUS HORIZONTAL REINFORCING BARS, UNLESS SHOWN OTHERWISE.
- J. PROVIDE ADEQUATE BRACING AND SUPPORT FOR MASONRY WORK UNTIL PERMANENT CONSTRUCTION IS IN PLACE.
- K. WHERE REQUIRED FOR MASONRY OPENINGS, BUT NOT SHOWN ON PLAN, PROVIDE PRECAST CONCRETE LINTELS AS FOLLOWS:

| 6" WALL  | 6" X 8" UNIT  | 2#4 I&B UP IO 6'-0" |
|----------|---------------|---------------------|
| 8" WALL  | 8" X 8" UNIT  | 2#5 T&B UP TO 8'-0" |
| 10" WALL | 10" X 8" UNIT | 2#6 T&B UP TO 8'-0" |
| 12" WALL | 12" X 8" UNIT | 3#5 T&B UP TO 8'-0" |
|          |               |                     |

PROVIDE #2 TIES @ 8" O.C. IN ALL PRECAST LINTELS. MAX CLEAR SPAN 8'-0". PROVIDE MINIMUM 8" 100% SOLID MASONRY BEARING EA END. PLACE NO OPENINGS ABOVE LINTEL WITHIN A HEIGHT LESS THAN THE WIDTH OF THE CLEAR OPENING BELOW LINTEL, UNLESS SHOWN OR APPROVED BY THE ENGINEER.

- . PROVIDE #5 CORNER BARS AT ALL BOND BEAM CORNERS TO LAP A MINIMUM OF 40 BAR DIAMETERS. M. PROVIDE ADJUSTABLE MASONRY ANCHORS TO STEEL BEAMS AND COLUMNS WHICH ARE EMBEDDED IN
- MASONRY AT 2'-8" O.C. MAXIMUM. N. INSPECTION HOLES SHALL BE DRILLED AT THE BOTTOM INSIDE FACE OF ALL BLOCK TO VERIFY THAT THE GROUT
- HAS FILLED ALL MASONRY VOIDS. HOLES SHALL BE 2" IN DIAMETER SPACED AT 4'-0" O.C. (MAX.) HORIZONTALLY. O. PROVIDE TWO (2) COURSES OF SOLID CMU PER ASTM C 90 OR GROUT-FILLED CMU BENEATH ALL BEAM AND
- HEADER BEARING POINTS.
- P. PROVIDE DOWELS WITH STANDARD BAR HOOK IN FOOTING TO MATCH DIAMETER AND SPACING OF VERTICAL
- REINFORCEMENT. MINIMUM SPLICE LENGTH = 24". Q. VERTICAL AND HORIZONTAL REINFORCING BARS SHALL BE SECURELY HELD IN PROPER ALIGNMENT AND POSITION DURING GROUTING OPERATIONS BY USING HOT DIPPED GALVANIZED REBAR POSITIONERS.

VIII. LIGHT GAGE METAL FRAMING

A. LIGHT GAGE METAL FRAMING SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS," NAS-07 WITH 2010 SUPPLEMENT.

- B. PROVIDE DESIGN AND DETAILING FOR LIGHTGAGE FRAMING AND SUBMIT CALCULATIONS AND SHOP DRAWINGS UNDER THE SEAL AND SIGNATURE OF AN ENGINEER LICENSED TO PRACTICE IN THE LOCAL JURISDICTION. DESIGN LIGHT GAGE MEMBERS IN ACCORDANCE WITH MANUAL OF THE LIGHT GAGE STRUCTURAL INSTITUTE. "LIGHT GAGE STRUCTURAL STEEL FRAMING SYSTEM DESIGN HANDBOOK." THE SUBMISSION SHALL ALSO INCLUDE:
- 1. CROSS-SECTIONS, PLANS AND ELEVATIONS. 2. CONNECTION DETAILS SHOWING REQUIRED SCREWS/WELDS/PAF'S.
- 3. FLOOR TO FLOOR ELEVATIONS.
- 4. DIMENSIONS.
- 5. BRIDGING LOCATIONS.
- C. LIGHTGAGE FRAMING MEMBERS: SHALL BE IN ACCORDANCE WITH ASTM A-653, FY = 33,000 PSI. MIN. D. ALL WELDING SHALL BE IN ACCORDANCE WITH THE "AMERICAN WELDING SOCIETY D.1.3, 1998 STRUCTURAL WELDING CODE FOR SHEET STEEL." MIN. 14 GAUGE MEMBERS SHALL BE USED AT WELDED CONNECTIONS. ALL WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.
- E. ALL AXIALLY LOADED STUDS SHALL HAVE FULL BEARING INSIDE TRACK WEB PRIOR TO ATTACHMENT. NO
- SPLICES IN LOADED STUDS ARE PERMITTED. F. WALL STUD BRACING SHALL BE INSTALLED AT THIRD POINTS IN ALL BEARING PARTITIONS; AT MID-HEIGHT IN
- NON-LOAD BEARING PARTITIONS. G. ALL LIGHT GAGE FRAMING SHALL BE DESIGNED BY THE MANUFACTURER'S ENGINEER FOR THE CODE REQUIRED LOADS. STUDS SUPPORTING MASONRY VENEER SHALL LIMIT LATERAL DEFLECTION TO L/600. SHOP DRAWINGS SHALL BE PREPARED UNDER AND STAMPED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION SUBMITTED TO THE ARCHITECT FOR APPROVAL.
- H. INTERIOR WALLS STUDS: MAX SPACING: = 24" MAX DEFL = L/360 VERTICAL SPAN: TO 10'-0" MIN. WEB = 2 1/2" DEEP 10'-1" TO 13'-0" = 3 5/8"

|                  | 0.0/0 |
|------------------|-------|
| 13'-1" TO 15'-0" | = 4"  |
| 15'-1" TO 20'-0" | = 6"  |
| 20'-1" TO 26'-0" | = 8"  |

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IX. GENERAL A. INFORMATION SHOWN REGARDING EXISTING CONDITIONS HAS BEEN OBTAINED BY LIMITED VISUAL OBSERVATIONS. AREAS NOT VISIBLE HAVE BEEN ASSUMED TYPICAL WITH OBSERVED EXISTING CONDITIONS.

- CONSTRUCTION AND THE SUBMISSION OF SHOP DRAWINGS, AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES. VERIFICATION AND NOTIFICATION SHALL PROCEED 2 WEEKS PRIOR TO THE START OF WORK SO THAT ANY NECESSARY CHANGES CAN BE MADE WITHOUT DELAYING THE PROJECT SCHEDULE. APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE SHOWN OR NOTED.
- B. MEASURE AND PROVIDE ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOB SITE PRIOR TO C. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL D. SHOP DRAWINGS SUBMITTED TO THE ARCHITECT SHALL BEAR THE CONTRACTOR'S STAMP, DATE AND
- SIGNATURE VERIFYING DOCUMENTS HAVE BEEN REVIEWED AND CORRECTED FOR CONFORMANCE TO AND COORDINATION WITH CONTRACT DOCUMENTS. E. FABRICATION SHALL PROCEED ONLY AFTER SHOP DRAWING APPROVAL BY THE ENGINEER.
- F. DO NOT REPRODUCE ANY PORTION OF CONTRACT DOCUMENTS IN THE SHOP DRAWINGS. G. INSPECTION REPORTS AND MATERIALS TESTING REPORTS SHALL BE SUBMITTED TO THE ENGINEER IN A TIMELY MANNER SUCH THAT CONSTRUCTION DELAY WILL BE AVOIDED.
- H. MEANS AND METHODS OF CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. I. FILL ALL FLOOR AND ROOF OPENINGS WHERE EXISTING MECHANICAL, ELECTRICAL OR PLUMBING OPENINGS ARE TO BE ABANDONED. SEE APPROPRIATE DEMOLITION DRAWINGS FOR LOCATION AND QUANTITY OF EXISTING OPENINGS. ASSUME ALL EXISTING OPENINGS ARE 6 INCHES WIDER THAN SIZE OF EXISTING SYSTEM COMPONENT TO BE REMOVED. FILL OPENINGS IN ACCORDANCE WITH TYPICAL DETAIL SHOWN OR PROJECT SPECIFICATIONS.
- J. WHERE THE CONTRACTOR IS REQUIRED TO ENGAGE A PROFESSIONAL ENGINEER TO DESIGN AND SUBMIT CALCULATIONS, AND WHERE THE PROFESSIONAL ENGINEER PREPARES THE CALCULATIONS USING A COMPUTER SOFTWARE SYSTEM, THE SOFTWARE SHALL BE A READILY AVAILABLE, INDUSTRY STANDARD STRUCTURAL ENGINEERING COMMERICAL SYSTEM IN COMMON USE.
- X. STRUCTURAL DEMOLITION (EXCLUDING CONCRETE REPAIRS) A. ALL MEANS AND METHODS OF REMOVING EXISTING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- B. THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS. BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INCIDATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- C. ALL NEW OPENINGS THROUGH EXISTING STRUCTURE SHALL BE LOCATED AND MARKED BY THE CONTRACTOR. IF OPENING ARE THROUGH REINFORCED CONCRETE, FIND AND MARK THE LOCATION OF THE REINFORCEMENT. DO NOT CUT OPENINGS UNTIL APPROVED BY ARCHITECT.
- D. WHERE NEW OPENINGS IN EXISTING CONCRETE SLAB OR MASONRY AND CONCRETE WALLS ARE TO BE CREATED, THE DEMOLITION CONTRACTOR SHALL CORE HOLES AT THE OUTSIDE CORNERS OF THE NEW OPENING PRIOR TO DEMOLITION. SAW-CUT AND DEMOLISH SLAB OR WALL ONLY AFTER THE INSTALLATION OF ALL REQUIRED NEW STRUCTURAL FRAMING AND/OR REINFORCEMENT IN PLAN OR SECTION, UNO. SAW CUTTING SHALL BE STRAIGHT AND SHALL NOT EXTEND INTO EXISTING SLAB OR WALL TO REMAIN NOR BEYOND THE HOLES CORED AT THE CORNERS OF THE NEW OPENING. E. DO NOT ALLOW DUST, WATER OR DEBRIS TO ENTER MECHANICAL SYSTEMS. CLEAN ALL EQUIPMENT AND REPLACE FILTERS AFTER CONSTRUCTION.
- F. PROVIDE A COMPLETELY SEALED ENCLOSURE WITH DOUBLE AIR LOCK ENTRANCE AND WATER FILTERED AIR VENTILATION SYSTEM AT LOCATION INDICATED.
- G. PROVIDE SIGNAGE AND BARRICADES AT ALL EGRESS DOORS INTO WORK AREA INDICATING "NO ENTRY" INTO WORK AREAS. PROVIDE CONSTRUCTION SIGNAGE EVERY 15 FEET. SUBMIT SIGNAGE AND BARRICADE PLAN TO ARCHITECT FOR APPROVAL
- H. PROVIDE TEMPORARY VENTILATION TO INSIDE THE ENCLOSURE WITH A MINIMUM 50 CUBIC FEET PER MINUTE PER 100 SQUARE FEET OF ENCLOSED AREA, FRESH AIR EXCHANGE. LINES, SPRINKLER LINES, STEAM AND CONDENSATE LINES, ELECTRICAL, COMMUNICATIONS, LIGHTS,
- I. PROTECT ALL EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO: FLOOR DRAINS, WATER AND SEWER SENSORS. SIGNAGE. AIR DUCTS. AIR VENTS. MECHANICAL AND HEATING UNITS. J. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO ANY STRUCTURAL ELEMENT WHICH IS TO REMAIN AND THAT HAS BEEN DAMAGED DURING THE DEMOLITION PROCESS. THE REPAIRS SHALL BE AT NO EXPENSE TO THE OWNER AND SHALL BE PERFORMED TO THE COMPLETE SATISFACTION OF THE OWNER.
- ALL REPAIR WORK SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER IN THE JURISDICTION AND SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO COMMENCING REPAIR WORK. K. ALL DEBRIS FROM DEMOLITION AND/OR REPAIR WORK SHALL BE LEGALLY TRANSPORTED AND DISPOSED OF OFF SITE. DO NOT STORE DEBRIS ON THE STRUCTURE.
- XI. SHORING AND BRACING A. ENGAGE A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN LOCAL JURISDICTION TO PERFORM AN ENGINEERING SURVEY OF THE BUILDING TO DETERMINE WHETHER REMOVING ANY ELEMENT COULD RESULT IN A STRUCTURAL DEFICIENCY OR UNPLANNED COLLAPSE OF ANY PORTION OF STRUCTURE OR ADJACENT STRUCTURES DURING DEMOLITION OPERATIONS. 1. SUBMIT SURVEY A MINIMUM OF TWO WEEKS BEFORE SCHEDULED START OF WORK OR EARLIER IF
  - NECESSARY TO AVOID DELAYS. FROM STRUCTURAL DEMOLITION ACTIVITIES.
- 2. ENGINEER SHALL PREFORM SURVEYS AS THE WORK PROGRESSES TO DETECT HAZARDS RESULTING B. AS A MINIMUM, THE CONTRACTOR SHALL SHORE AND BRACE THE EXISTING STRUCTURE TO THE EXTENT INDICATED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL INSTALL ADDITIONAL SHORING AND BRACING AS DETERMINED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER
- C. CONTRACTOR'S PROFESSIONAL ENGINEER SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE DESIGN OF ALL REQUIRED SHORING AND BRACING. TO ENSURE STABILITY OF EXISTING AND NEW STRUCTURE AND COMPLIANCE WITH DESIGN CRITERIA D. DESIGN TEMPORARY SHORING AND BRACING FOR SELF WEIGHT OF STRUCTURE, CODE WIND LOADS, AND A MINIMUM CONSTRUCTION LOAD OF 100 PSF OR 3,000 LBS POINT LOAD OR ACTUAL LOAD WHICHEVER
- PRODUCES GREATER STRESSES. THE DESIGN PROCEDURES SHALL CONFORM TO ALL GOVERNING CODES AND SAFETY REQUIREMENTS.
- E. SHORE AND BRACE EXISTING STRUCTURE PRIOR TO DEMOLITION WORK AND UNTIL PERMANENT NEW STRUCTURE OR REPAIRED EXISTING STRUCTURE CAN SUPPORT LOADS.
- F. PROVIDE ADEQUATE TEMPORARY BRACING AND SUPPORT FOR ALL NEW WORK INCLUDING BUT NOT LIMITED TO UNBRACED MASONRY WORK UNTIL PERMANENT CONSTRUCTION IN PLACE.
- G. MAINTAIN INTERIOR AND EXTERIOR SHORING, BRACING, AND STRUCTURAL SUPPORTS TO PRESERVE STABILITY AND PREVENT MOVEMENT OR COLLAPSE OF ANY PART OF STRUCTURE. 1. STRENGTHEN OR ADD NEW SUPPORTS WHEN REQUIRED DURING PROGRESS OF DEMOLITION.
- H. BRACING 1. BRACING: LOCATE BRACING TO CLEAR COLUMNS, FLOOR FRAMING CONSTRUCTION, AND OTHER PERMANENT WORK. IF NECESSARY TO MOVE BRACE, INSTALL NEW BRACING BEFORE REMOVING
- ORIGINAL BRACE. A) DO NOT PLACE BRACING WHERE IT WILL BE CAST INTO OR INCLUDED IN PERMANENT CONCRETE WORK UNLESS OTHERWISE APPROVED BY ARCHITECT
- B) INSTALL INTERNAL BRACING IF REQUIRED TO PREVENT SPREADING OR DISTORTION OF BRACED FRAMES. C) MAINTAIN BRACING UNTIL STRUCTURAL ELEMENTS ARE SUPPORTED BY OTHER BRACING OR UNTIL PERMANENT CONSTRUCTION IS ABLE TO WITHSTAND DESIGN LOADS.

XII. TESTING AND INSPECTION

- THE CONTRACTOR SHALL RETAIN THE SERVICES OF A TESTING AND INSPECTION AGENCY TO PERFORM THE SERVICES SPECIFIED. A. MINIMUM SERVICES PROVIDED SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE LOCAL
- JURISDICTION.
- B. FAILURE TO RETAIN A TESTING AGENCY TO PROVIDE REQUIRED SERVICES OR A FAILURE TO SUBMIT SIGNED AND SEALED REPORTS SHALL BE CONSIDERED NON-COMPLIANCE WITH CONTRACT DOCUMENTS. C. CONSTRUCTION CONSIDERED NON-COMPLIANT SHALL BE REMOVED AND REPLACED

- D. ALL TESTING AND INSPECTION SHALL BE UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE LOCAL JURISDICTION.
- E. PRELIMINARY HAND WRITTEN SITE VISIT REPORTS CONFIRMING VERBAL DISCUSSIONS SHALL BE PROVIDED TO THE CONTRACTOR ON RESULTS OF INSPECTIONS PRIOR TO LEAVING JOB SITE. F. FINAL REPORTS SHALL BE SUBMITTED TO THE ARCHITECT IN A TIMELY MANNER. BUT NO LATER THAN TEN
- (10) DAYS FOLLOWING INSPECTION OR TESTING. UNDER THE NAME AND SIGNATURE OF THE INSPECTOR AND LICENSURE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER RESPONSIBLE FOR TESTING AND INSPECTION.
- G. INSPECTION SHALL MINIMALLY INCLUDE THE FOLLOWING: 1. FOUNDATIONS & EARTHWORK: FOOTINGS AND DEEP FOUNDATIONS. FILLS. SLAB SUB-GRADE. PERIMETER AND UNDERFLOOR DRAINAGE SYSTEMS.
- 2. REINFORCING: LOCATION, ASTM DESIGNATION, BAR SIZES, TYPE (PLAIN OR EPOXY COATED), QUANTITY, PLACEMENT, SPACING, AND CLEARANCES.
- 3. CONCRETE: ALL STRUCTURAL CONCRETE; LOCATION, STRENGTH, TYPE (NORMAL OR LIGHTWEIGHT), SLUMP. PLACEMENT, AIR TEMPERATURE, CURING AND WEATHER ACCOMMODATIONS AND CONCRETE ADDITIVES.
- GALVANIZED. STAINLESS). PLACEMENT AND CONNECTIONS INCLUDING WELDS AND BOLTS. STUDS IN COMPOSITE CONSTRUCTION, POST INSTALLED ANCHORS, ANCHOR BOLTS AND GROUTING. MASONRY SPECIFICATIONS AND SHALL MINIMALLY INCLUDE INSPECTION OF UNITS, GROUT REINFORCING, ANCHOR BOLTS AND LINTELS. AS MASONRY CONSTRUCTION BEGINS, VERIFY THE FOLLOWING ARE IN COMPLIANCE: PROPORTIONS OF SITE PREPARED MORTAR. CONSTRUCTION OF MORTAR JOINTS, LOCATION OF REINFORCEMENT AND CONNECTORS. PRIOR TO GROUTING, VERIFY THE FOLLOWING ARE IN COMPLIANCE: GROUT SPACE, GRADE AND SIZE OF REINFORCEMENT, PLACEMENT OF REINFORCEMENT, ANCHORS, TIES, AND CONNECTORS, PROPORTIONS OF SITE PREPARED GROUT,
- 4. STRUCTURAL STEEL: LOCATION, ASTM DESIGNATION, MEMBER SIZES, TYPE (PLAIN, PAINTED, 5. MASONRY: MASONRY INSPECTION FOR QUALITY ASSURANCE SHALL BE LEVEL B AS DEFINED IN THE
- AND CONSTRUCTION OF MORTAR JOINTS. VERIFY PLACEMENT OF GROUT, PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS. 6. WOOD: LUMBER FOR IMPEREN CAUSE FOR REJECTION, NAILING, LIGHT GAUGE ONNECTIONS AND FOUNDATION ANCHORAGE.

| WOOD: LUMBER, FOR IMPERFECTIONS THAT ARE ( |
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- H. MATERIAL TESTING SHALL MINIMALLY INCLUDE THE FOLLOWING:
- 1. FOUNDATION & EARTHWORK: SOIL BEARING CAPACITIES AND COMPACTION DENSITIES.
- 2. REINFORCING: YIELD AND ULTIMATE STRENGTHS. (MILL REPORTS ARE ACCEPTABLE.) 3. CONCRETE: SLUMP TESTS; EVERY THIRD TRUCKLOAD OF CONCRETE AND IN ADDITION, ONE FOR EACH SET OF STRENGTH-TEST CYLINDERS AT PREPARATION. STRENGTH TESTS; ONE SET OF CYLINDERS FOR MAXIMUM OF EACH 50 CY OF CONCRETE PLACEMENT. ONE SET OF CYLINDERS FOR EACH 2500 SQUARE SLAB AREA.
- 4. STRUCTURAL STEEL: YIELD AND ULTIMATE STRENGTHS. (MILL REPORTS ARE ACCEPTABLE.) 5. MASONRY: MATERIALS CERTIFICATES AND VERIFICATION OF F'M PRIOR TO CONSTRUCTION. I. COMPLY WITH CODE REQUIREMENTS AND THE FOLLOWING
- 1. CONCRETE CYLINDERS: ONE SET OF 6 LABORATORY CURED 6X12 CYLINDERS SHALL BE TAKEN FOR EACH DAY'S POUR FOR EACH MIX: (2) 7-DAY, (2) 28-DAY, (2) HOLD; 2. ONE SET OF 4 FIELD CURED 6X12 CYLINDERS SHALL BE TAKEN FOR EACH DAY'S POUR FOR EACH
- MIX (2) 7 -DAY. (2) 28-DAY. J. FIELD CURED CYLINDERS SHALL BE CURED IN ACCORDANCE WITH CODE REQUIREMENTS OR IF NOT APPLICABLE THEN CURED IN SAME CONDITIONS AS CONCRETE IN WORK.
- K. ONE SET OF MORTAR CUBES FOR COMPRESSIVE STRENGTH TESTING SHALL BE MADE IN ACCORDANCE WITH ASTM C91 AND C270 AT A FREQUENCY OF ONE TEST PER WEEK.
- L. MASONRY PRISM TESTS IN CONFORMANCE WITH ASTM E447 METHOD B SHALL BE CONDUCTED AT A FREQUENCY OF ONE TEST PER WEEK.
- M. PROOF LOADS FOR POST-INSTALLED ANCHORS, AS SHOWN ON THE DRAWINGS, SHALL BE USED FOR TESTING TENSION IN POST-INSTALLED ANCHORS AND SHALL BE APPLIED WITH A CALIBRATED HYDRAULIC RAM. THE TESTING AGENCY SHALL PROVIDE A CALIBRATION CHART DATED WITHIN ONE YEAR. DISPLACEMENT OF ADHESIVE AND CAPSULE ANCHORS AT PROOF LOAD SHALL NOT EXCEED D/10, WHERE D IS THE NOMINAL ANCHOR DIAMETER.
- XIII. EXCAVATION SUPPORT AND PROTECTION
- A. COMPLY WITH SPECIFICATION SECTION "EXCAVATION SUPPORT AND PROTECTION" AND AS NOTED BELOW. B. PERFORM A DETAILED SURVEY OF ADJACENT BUILDINGS AND SITE IMPROVEMENTS BY CONTRACTOR'S INDEPENDENT PROFESSIONAL STRUCTURAL ENGINEER. PHOTOGRAPH, MEASURE AND RECORD ALL VISIBLE DAMAGE INCLUDING CRACKS, SETTLEMENT OR DISTRESS SECURELY ATTACH CRACK MONITORING GAGES OR SURVEY TARGETS TO ADJACENT PROPERTY WITH PERMISSION FROM PROPERTY OWNER. ARRANGE TO HAVE ADJACENT OWNER'S REPRESENTATIVE PRESENT DURING SURVEY AND CONCURR WITH FINDINGS. SUBMIT REPORT TO ARCHITECT BEFORE WORK BEGINS.
- C. SUBMIT SIGNED AND SEALED CALCULATIONS FOR EXCAVATION SUPPORT SYSTEM BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN JURISDICTION OF PROJECT. PROFESSIONAL ENGINEER SHALL HAVE MINIMUM TEN YEARS EXPERIENCE IN DESIGNING EXCAVATION SUPPORT SYSTEMS OF COMPARABLE SIZE AND COMPLEXITY.
- D. SUBMIT SIGNED AND SEALED SHOP DRAWINGS: FOR EXCAVATION SUPPORT AND PROTECTION SYSTEM, PREPARED BY OR UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN JURISDICTION OR PROJECT.
- INCLUDE PLANS, ELEVATIONS, SECTIONS, AND DETAILS. 2. SHOW ARRANGEMENT, LOCATIONS, AND DETAILS OF SOLDIER PILES, PILING, LAGGING, TIEBACKS, BRACING, AND OTHER COMPONENTS OF EXCAVATION SUPPORT AND PROTECTION SYSTEM ACCORDING TO ENGINEERING DESIGN.
- 3. INDICATE TYPE AND LOCATION OF WATERPROOFING.
- DO NOT PROCEED WITH WORK UNTIL ARCHITECT HAVE NO FURTHER COMMENTS E. FIELD QUALITY CONTROL
- 1. RESURVEY BENCHMARKS CRACK MONITORS, SURVEY TARGETS DAILY DURING EXCAVATION PROGRESS, INSTALLATION OF EXCAVATION SUPPORT AND PROTECTION SYSTEMS AND FOR AS LONG AS EXCAVATION REMAINS OPEN. MAINTAIN AN ACCURATE LOG OF SURVEYED ELEVATIONS AND POSITIONS FOR COMPARISON WITH ORIGINAL ELEVATIONS AND POSITIONS. PROMPTLY NOTIFY ARCHITECT IF CHANGES IN ELEVATIONS OR POSITIONS OCCUR OR IF CRACKS, SAGS, OR OTHER DAMAGE IS EVIDENT IN ADJACENT CONSTRUCTION.
- 2. PROMPTLY CORRECT DETECTED BULGES, BREAKAGE, OR OTHER EVIDENCE OF MOVEMENT TO ENSURE THAT EXCAVATION SUPPORT AND PROTECTION SYSTEM REMAINS STABLE
- 3. PROMPTLY REPAIR DAMAGES TO ADJACENT FACILITIES CAUSED BY INSTALLATION OR FAULTY PERFORMANCE OF EXCAVATION SUPPORT AND PROTECTION SYSTEMS TO ARCHITECT.
- III. EARTH WORK
- A. ALLOWABLE SOIL BEARING PRESSURE FOR ALL SHALLOW FOOTINGS ASSUMED TO BE 1500PSF. SHOULD UNSUITABLE MATERIAL BE ENCOUNTERED. FOOTINGS SHALL BE OVER EXCAVATED AND REPLACED WITH LEAN CONCRETE, F'C = 2000PSI] [COMPACTED FILL TO 95% MAXIMUM DRY DENSITY]. B. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 2'-6" BELOW EXTERIOR GRADE, UNLESS
- NOTED OTHERWISE. C. FILL WILL BE REQUIRED FOR SITE GRADING IN BUILDING AREAS, AND AS BACKFILL AGAINST WALLS BELOW GRADE.
- D. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL. CRUSHED STONE, VDOT 21-A.
- E. UNSUITABLE EXISTING FILL, SOFT OR LOOSE NATURAL SOILS, ORGANIC MATERIAL, AND RUBBLE SHALL BE STRIPPED TO APPROVED SUBGRADES AS DETERMINED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER AND APPROVED BY THE ARCHITECT. THE ACTUAL DEPTH OF STRIPPING NECESSARY TO PROVIDE A SUITABLE BASE FOR PLACEMENT AND COMPACTION OF EARTHWORK MAY INCLUDE TOPSOIL AND OTHER SOFT SURFICIAL LAYERS WITH OR WITHOUT ORGANIC MATTER.
- F. SUBGRADES SHALL BE PROOF ROLLED WITH A MINIMUM 10 TON, LOADED DUMP TRUCK OR SUITABLE RUBBER TIRE CONSTRUCTION EQUIPMENT APPROVED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER, PRIOR TO THE PLACEMENT OF NEW FILL
- G. FILL MATERIAL SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 8 INCHES LOOSE THICKNESS, TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D-698 H. INDIVIDUAL BORROW AREAS, BOTH FROM ON-SITE AND OFF-SITE SOURCES, SHALL BE SAMPLED AND
- TESTED TO VERIFY CLASSIFICATION OF MATERIALS PRIOR TO THEIR USE AT FILL I. AFTER COMPLETION OF COMPACTED FILL OPERATION IN BUILDING AREAS, CONSTRUCTION OF BUILDING ELEMENTS SHALL BEGIN IMMEDIATELY, OR THE FINISHED SUBGRADE SHALL BE PROTECTED FROM
- EXPOSURE TO INCLEMENT WEATHER CONDITIONS. J. PLACE SLABS ON GRADE ON ONE LAYER OF VAPOR BARRIERS OVER MINIMUM OF SIX INCHES OF
- COMPACTED GRANULAR FILL WITH 1/2 INCH OF FINE GRADED GRANULAR MATERIAL ON TOP
- K. GRANULAR FILL; CLEAN MIXTURE OF CRUSHED STONE OR CRUSHED OR UNCRUSHED GRAVEL; ASTM D 448, SIZE 57, WITH 100 PERCENT PASSING A 1-1/2-INCH SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE. L. FINE- GRADED GRANULAR MATERIAL; CLEAN MIXTURE OF CRUSHED STONE, CRUSHED GRAVEL, AND MANUFACTURED OR NATURAL SAND; ASTM D 448, SIZE 10, WITH 100 PERCENT PASSING A 3/8-INCH\_SIEVE, 10 TO 30 PERCENT PASSING A NO. 100 SIEVE, AND AT LEAST 5 PERCENT PASSING NO. 200 SIEVE:
- COMPLYING WITH DELETERIOUS SUBSTANCE LIMITS OF ASTM C 33 FOR FINE. M. PROVIDE TEMPORARY BRACING AND SHORING, AS REQUIRED, TO ENSURE VERTICAL AND LATERAL
- STABILITY OF THE ENTIRE STRUCTURE OR PORTION THEREOF DURING CONSTRUCTION. N. ALL WALLS ARE DESIGNED AS LATERALLY BRACED BY THE FLOOR AND ROOF SYSTEMS U.N.O. CONTRACTOR SHALL ENSURE THAT WALLS ARE ADEQUATELY BRACED DURING CONSTRUCTION
- O. TEMPORARY BRACING SHALL BE PROVIDED FOR ALL WALLS SUBJECT TO UNBALANCED BACKFILL. BRACE WALL PLUMB UNTIL STABILIZING ELEMENT ABOVE IS IN PLACE.
- P. ANY REQUIRED TEMPORARY SHORING SHALL BE IN CONFORMANCE WITH OSHA REGULATIONS. UNBRACED EXCAVATIONS SHALL BE SLOPED NO GREATER THAN (1.5) HORIZONTAL TO (1) VERTICAL Q. LOCATE ALL UNDERGROUND UTILITIES IN VICINITY OF FOUNDATIONS AND DETERMINE IF A CONFLICT
- EXISTS. PROVIDE INFORMATION ON LOCATION SIZE AND ELEVATION OF UTILITIES PRIOR TO START OF WORK SO THAT ANY NECESSARY CHANGES CAN BE MADE WITHOUT DELAYING THE PROJECT SCHEDULE.
- IV. UNDERPINNING A. UNDERPINNING DESIGN AND PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR B. UNDERPINNING CONTRACTOR SHALL PREPARE AND SUBMIT FOR INFORMATION - DRAWINGS STAMPED, SEALED AND PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN PROJECT JURISDICTION SHOWING PLAN'S, DETAILS OF THE UNDERPINNING SCHEME, WORK PROCEDURE AND
- PROPOSED TIME SCHEDULE FOR REVIEW. C. BOTTOM OF EXISTING FOOTING ELEVATIONS SHOWN HAVE BEEN APPROXIMATED FROM AVAILABLE INFORMATION PROVIDED TO THE ENGINEER.
- D. EXTEND UNDERPINNING TO ELEVATIONS SHOWN.
- E. UNDERPIN EXISTING FOOTING IN SEQUENCE SUCH THAT CONCRETE ADJACENT TO NEW EXCAVATION SHALL HAVE BEEN IN PLACE NO LESS THAN 72 HOURS. F. AFTER UNDERPINNING CONCRETE IS IN PLACE 24 HOURS, DRY PACK TOP 3" BETWEEN UNDERPINNING
- CONCRETE AND EXISTING FOOTING WITH NON-SHRINK GROUT. G. UNDERPINNING CONCRETE F'C = 3,500 PSI MIN. NON-SHRINK GROUT F'C = 5,000 PSI MIN. H. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF INSTALLING UNDERPINNING AND SHALL
- ADEQUATELY SUPPORT EXISTING STRUCTURES AS IS NECESSARY TO MAINTAIN STABILITY. I. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITY SERVICES AND STRUCTURES SHALL BE LOCATED BY THE CONTRACTOR AND PROTECTED AT ALL TIMES.

![](_page_21_Figure_101.jpeg)

![](_page_22_Figure_0.jpeg)

| 7 | 6 | 5 | 4 | 3 |  |
|---|---|---|---|---|--|
|   |   |   |   |   |  |

![](_page_22_Figure_9.jpeg)

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![](_page_23_Figure_1.jpeg)

| ſ        | 18                                    | 17   | 16  | 15   | 14  |
|----------|---------------------------------------|--|---|--|---|
|          | © GRIMM AND PARKER ARCHITECTURE, INC. |  |   |  | MECHANICAL GE   |
|          |                                       | <ol> <li>PROVIDE WORK CONFORMING IN ALL RESPE<br/>HAVING JURISDICTION, AND ALL APPLICABLE<br/>AND LOCAL AUTHORITIES. INSTALL ALL EQU<br/>AND MANUFACTURER'S RECOMMENDATIONS</li> </ol>   | CTS TO THE LATEST APPLICABLE CODE<br>E RULES, REGULATIONS, LAWS AND ORE<br>IIPMENT IN COMPLIANCE WITH ACCEPTE<br>S. PROJECT IS DESIGNED IN ACCORDAM   | S OF THE AUTHORITIES<br>DINANCES OF FEDERAL<br>ED INDUSTRY STANDARDS<br>ICE WITH   | WHEN TESTED IN ACCORDANCE WITH AMCA 500<br>C. ALL EXHAUST GRAVITY DAMPERS SHOWN ON TH<br>MAXIMUM LEAKAGE RATE OF 10 CFM/SF AT 1.0 II  |
| М        |                                       | VIRGINIA:<br>2015 VIRGINIA BUILDING CODE<br>2015 VIRGINIA ENERGY CODE<br>2015 VIRGINIA MECHANICAL CODE<br>2015 VIRGINIA PLUMBING CODE<br>2015 VIRGINIA FUEL GAS CODE   |   |  | <ol> <li>LOUVERS         <ul> <li>A. LOUVERS SHALL BE INSTALLED PER THE MANUF<br/>WALL. THIS INCLUDES BUT IS NOT LIMITED TO, V<br/>FASTENERS TYPE AND SPACING, AND PROVIDIN</li> </ul> </li> <li>20. EQUIDMENT:</li> </ol>  |
|          |                                       | 2. THE SCOPE OF WORK INDICATED IN THESE I<br>SYSTEMS, ADJUSTED, TESTED, AND READY<br>SYSTEMS. EXAMINE THE ARCHITECTURAL, S<br>DRAWINGS TO BECOME FAMILIARIZED WITH<br>THAT TO BE PERFORMED OR INSTALLED BY<br>DETERMINE THE EXTENT OF MECHANICAL W   | DOCUMENTS SHALL INCLUDE FULLY FU<br>FOR USE. PROVIDE ALL ITEMS NECESS,<br>TRUCTURAL, ELECTRICAL, FIRE ALARM,<br>ALL ASPECTS OF THOSE DESIGNS. CO<br>OTHERS, AND THAT AFFECTING MECHA<br>ORK REQUIRED.   | NCTIONING MECHANICAL<br>ARY TO COMPLETE THE<br>PLUMBING AND TELECOM<br>ORDINATE WORK WITH<br>NICAL SYSTEMS, TO   | <ul> <li>20. EQUIPMENT:</li> <li>A. COORDINATE THE FRAME TYPE, STYLE AND LOC<br/>ARCHITECTURAL FEATURES, CEILING GRID, AND<br/>INTEGRAL PATTERN OF DESIGN AND CONSTRUCT</li> <li>B. PROVIDE COMBINATION STARTER/FUSED DISCO</li> </ul>  |
|          |                                       | <ol> <li>THE ENGINEERS' CONSTRUCTION PHASE SE<br/>RENDERED BY THE ENGINEER DO NOT RELIE<br/>DOCUMENTS. THE ENGINEER DOES NOT HA<br/>CONTRACTORS. THE ENGINEER IS NOT RES<br/>OR PROCEDURES OF CONSTRUCTION, OR F<br/>CONSTRUCTION. THE ENGINEER IS NOT RES<br/>WORK IN COMPLANCE WITH THE CONSTRUCTION.</li> </ol>                       | RVICES ARE INTENDED TO BENEFIT THE<br>EVE CONTRACTORS FROM OBLIGATIONS<br>VE THE AUTHORITY TO SUPERVISE, DIR<br>PONSIBLE FOR MEANS, METHODS, TECI<br>OR SAFETY PROGRAMS AND PRECAUTION<br>SPONSIBLE FOR CONTRACTORS' FAILUR   | E CLIENT ONLY. SERVICES<br>S OF THE CONSTRUCTION<br>ECT, OR CONTROL THE<br>HNIQUES, SEQUENCES,<br>DNS DURING<br>RE TO PERFORM THE  | <ul> <li>C. IT IS STRICTLY PROHIBITED TO RELEASE ANY CF<br/>ATMOSPHERE DURING INSTALLATION, STARTUP<br/>EITHER DIRECTLY OR INDIRECTLY. CONTRACTO<br/>APPROPRIATE REFRIGERANT PURIFICATION/REF<br/>AND REMOVAL OF OIL AND RESIDUAL MOISTURE<br/>DEFENSION ANT</li> </ul>   |
|          |                                       | <ul> <li>4. IN ADHERENCE WITH THE INTENT OF THESE<br/>READY FOR OPERATION. WHEREVER THE W<br/>BALANCE, ADJUST, AND TEST, COMPLETE AN</li> </ul>  | CTION DOCUMENTS OR APPLICABLE LAY<br>NG JURISDICTION.<br>CONTRACT DOCUMENTS, PROVIDE FINI<br>ORD "PROVIDE" IS USED, IT SHALL MEAN<br>ND READY FOR USE".   | VS, CODES, OR<br>SHED WORK, TESTED AND<br>I "FURNISH, INSTALL,   | D. ALL THERMOSTATS/TEMPERATURE SENSORS SI<br>THERMOSTATS/TEMPERATURE SENSORS LOCA<br>WITH INSULATED SUB-BASES. EXACT LOCATION<br>FURNISHINGS.   |
|          |                                       | <ol> <li>THESE DRAWINGS ARE DIAGRAMMATIC AND<br/>COMPONENTS. PROVIDE ALL ITEMS NECESS<br/>COST, EVEN IF NOT SPECIFICALLY MENTION</li> <li>DRIOP TO SUBMITTING A RID, VISIT THE CON</li> </ol>  | INDICATE THE GENERAL LOCATION OF<br>SARY FOR A PROPERLY WORKING SYST<br>ED HEREIN.  | SYSTEMS AND<br>EM AT NO ADDITIONAL   | E. FURNISH AND INSTALL THERMOSTATS/TEMPERA<br>DRAWINGS. THERMOSTATS/TEMPERATURE SEN<br>OR OTHER HEAT-PRODUCING ELECTRICAL DEVI<br>ALIGNED WITH TOP EDGE OF ADJACENT LIGHT S   |
| K        |                                       | CONDITIONS AND NOTIFY THE ARCHITECT A<br>PRIOR TO THE INSTALLATION, FABRICATION,<br>CONDITIONS UNDER WHICH THE WORK IS TO<br>ARCHITECTURAL PLANS, BUILDING STRUCTU<br>PRIOR TO CONSTRUCTION. WHERE CONFLIC<br>IMMEDIATELY NOTIFY THE ARCHITECT AND/O<br>INSTALLATION.  | ND/OR ENGINEER OF ANY ITEMS THAT M<br>REMOVAL, OR RELOCATION OF ANY WO<br>DE PERFORMED AND FULLY COORDIN,<br>JRE, AND WORK OF OTHER TRADES. VE<br>CTS OCCUR, OR IF CONNECTIONS THER<br>DR ENGINEER, PRIOR TO MATERIAL FAB   | MAY AFFECT THE BID.<br>DRK, REVIEW THE ACTUAL<br>ATE ALL WORK WITH THE<br>RIFY EXISTING INVERTS<br>ETO CANNOT BE MADE,<br>RICATION OR  | F. COORDINATE THE LOCATION OF ALL NEW HVAC<br>AREAS AROUND EQUIPMENT ARE FREE FROM P<br>OTHER IMPEDIMENTS. WHERE PARTITION FRAM<br>ELECTRICAL SERVICE AREAS, FRAME A FULL-SIZ<br>CEILING TO UNDERSIDE OF BUILDING STRUCTUI<br>INFRINGE UPON CLEARANCES OF EXISTING HVA  |
|          |                                       | 7. WHERE THE WORK OF VARIOUS TRADES WII<br>WHERE THERE IS EVIDENCE THAT THE WOR<br>ACCESS/CLEARANCE SPACE OF OTHER TRA<br>PROVIDE SATISFACTORY SPACE. FOR ANY V<br>CONFLICTS, PROVIDE ALL NECESSARY CHAI<br>SHALL BE PERFORMED IN A MANNER ACCEP<br>ADDITIONAL COSTS.  | LL BE INSTALLED IN CLOSE PROXIMITY T<br>K OF ONE TRADE WILL INTERFERE WITH<br>DES, COORDINATE ADJUSTMENTS PRIO<br>WORK INSTALLED WITHOUT COORDINAT<br>NGES TO CORRECT THE CONDITIONS. T<br>TABLE TO ARCHITECT AND ENGINEER A  | TO ONE ANOTHER, OR<br>I WORK OR REQUIRED<br>R TO INSTALLATION TO<br>TON AND/OR CAUSING<br>THE CORRECTION WORK<br>IND SHALL BEAR NO   | <ul> <li>RELOCATED AS REQUIRED.</li> <li>G. FOR ALL NEW HVAC EQUIPMENT LOCATED ABO<br/>AS REQUIRED TO ALLOW FOR REGULAR MAINTE<br/>PRIOR TO INSTALLATION, COORDINATE EXACT L<br/>ARCHITECT AND BUILDING ENGINEER.</li> <li>39. PARKING GARAGE GAS DETECTION / VENTILATION (</li> </ul>  |
| J        |                                       | 8. LOCATE ALL EQUIPMENT REQUIRING SERVIC<br>ACCESSIBLE POSITION. EQUIPMENT REQUIF<br>TO: DAMPERS, VALVES, TRAPS, CLEANOUTS<br>EQUIPMENT IS CONCEALED, PROVIDE ACCES<br>FROM THE CONTRACT DOCUMENTS MAY BE<br>FOR THAT PURPOSE SHALL BE ACCEPTABLE  | CING, OPERATIONAL, OR MAINTENANCE<br>RING THESE CLEARANCES SHALL INCLU<br>, MOTORS, CONTROLLERS, DISCONNEC<br>SS DOORS TO MAINTAIN ACCESSIBILITY<br>MADE TO ALLOW FOR BETTER ACCESS   | CLEARANCES IN A FULLY<br>DE, BUT NOT BE LIMITED<br>TS, DRAIN PANS, ETC. IF<br>. MINOR DEVIATIONS<br>BILITY, AND ANY CHANGE   | <ul> <li>A. PROVIDE FULLY INTEGRATED CO AND NO2 GAS<br/>AS SPECIFIED.</li> <li>B. CARBON MONOXIDE / NITROGEN DIOXIDE SENSO<br/>CARBON MONOXIDE (CO) AND NITROGEN DIOXID<br/>DRAWINGS. THE REMOTE SENSOR SHALL UTILIZ</li> </ul>   |
|          |                                       | 9. PROVIDE CUTTING, PATCHING, AND/OR COR<br>MEMBERS AS REQUIRED FOR THE INSTALLA<br>REVIEW AND APPROVAL, AND INFORM THE C<br>PERFORMING THIS WORK. UNLESS OTHERW<br>CORE DRILLING, PERFORM X-RAYS OF AREA<br>OBSTRUCTIONS, OR CONFIRM WITH THE BUI<br>ACCEPTABLE ALTERNATE TO X-RAY.   | E DRILLING OF EXISTING WALLS, FLOOF<br>TION OF NEW WORK. OBTAIN A STRUCT<br>WNER OR THE OWNER'S REPRESENTA<br>VISE DIRECTED BY THE STRUCTURAL EN<br>S TO BE PENETRATED TO VERIFY THE S<br>LDING OWNER IF GROUND PENETRATIN  | IS, OR STRUCTURAL<br>TURAL ENGINEER'S<br>TIVE PRIOR TO<br>IGINEER AND PRIOR TO<br>SLAB IS FREE OF<br>IG RADAR (GPR) IS AN  | PROCESSOR BASED AND BE BOTH TEMPERATUR<br>STABILITY. FOR WIRELESS SENSORS, SENSOR<br>SELF-DIAGNOSTICS. PILOT LIGHTS OR LED'S SH.<br>ALARM, B) HIGH CO/NO2 UNIT IN ALARM, AND C)<br>MALFUNCTION CONDITION THE SENSORS OUTP<br>CO/NO2 CONDITION. THE CO SENSOR RANGE SI<br>ELECTRO-CHEMICAL ELEMENT AND HAVE RANG<br>RESPONSE TIME SHALL REACH 90% OF LEVEL B   |
| Н        |                                       | <ol> <li>INSTALL ALL DUCTWORK AND HORIZONTAL F<br/>UNLESS NOTED OTHERWISE. PROVIDE OFFS</li> <li>PERFORM ALL WORK IN ACCORDANCE WITH<br/>BUILDING OWNER. UNLESS OTHERWISE APF<br/>AS DIRECTED BY THE OWNER'S REPRESENT</li> </ol>  | PIPING AS HIGH AS POSSIBLE AND ABOV<br>SETS, AS REQUIRED, TO AVOID ALL OBS<br>ALL BUILDING RULES AND REGULATION<br>PROVED BY THE OWNER'S REPRESENTA<br>ATIVE.   | YE THE FINISHED CEILING,<br>TRUCTIONS.<br>IS AS PROVIDED BY THE<br>ITIVE, ACCOMPLISH WORK  | C. SYSTEM CONTROLLER: THE SYSTEM CONTROL<br>SENSORS. WHEN AN ALARM CONDITION IS DET<br>DELAY EXHAUST FAN CONTACT CLOSURE FOR 3<br>MORE THAN 30 SECONDS THE EXHAUST FAN CO<br>GARAGE VENTILATION FANS. THE MINIMUM FAN<br>MINUTES, IN 5 MINUTE INCREMENTS. SHOULD T<br>TIME HAS TIMED OUT, THE EXHAUST FAN CONT/   |
|          |                                       | 12. PROVIDE A TESTING, ADJUSTING, AND BALAI<br>ADJUSTMENTS NECESSARY TO ACCOMPLISI<br>AGENCY SHALL PERFORM ALL TESTS AND M<br>AND AIR SYSTEMS ARE BALANCED TO WITHI<br>SHALL SUBMIT REPORTS OF ALL WORK CON<br>MAXIMUM AIR / WATER FLOW RATES IN ALL O<br>SCOPE-OF-WORK SPACE. THE OWNER SHALL<br>DEPORT SHALL OF EADLY DEFLECT THE DEP  | NCING (TAB) AGENCY TO PERFORM ALL<br>H COMPLETE BALANCING OF THE HVAC<br>IAKE ALL ADJUSTMENT NECESSARY TO<br>N +10%, -5% OF THE SPECIFIED QUANTI<br>DUCTED FOR APPROVAL, INCLUDING SF<br>DPERATING MODES FOR ALL EQUIPMEN<br>LL BE GIVEN THE OPTION TO SELECT TH<br>CENT DEVIATION FROM THE DESIGN VA         | TESTS AND<br>SYSTEMS. THE TAB<br>ENSURE THAT WATER<br>TIES. THE TAB AGENCY<br>PECIFIED MINIMUM AND<br>T SERVING THE<br>E TAB AGENCY. THE   | "ALARM" SET OF CONTACTS SHALL CLOSE, INITIA<br>D. THE SYSTEM SHALL BE ACME ENGINEERING CEV<br>E. REFER TO THE SEQUENCE OF OPERATIONS FOR<br>SEQUENCE OF OPERATIONS:   |
| G        |                                       | A. MAKE ALL NECESSARY ADJUSTMENTS, IN<br>THE EQUIPMENT. FINAL BALANCING OF<br>TEMPERATURE AND/OR QUANTITY, WATE<br>CONTRACT DOCUMENTS.   | CENT DEVIATION FROM THE DESIGN VA<br>DING, OR A FIRM CERTIFIED BY NEBB.<br>NCLUDING BUT NOT LIMITED TO CHANGI<br>THE HVAC SYSTEMS SHALL ACHIEVE TH<br>ER QUANTITY, OUTSIDE AIR QUANTITY) I  | NG FAN SHEAVES FOR<br>E PERFORMANCE (AIR<br>NDICATED BY THE  | A. SETPOINTS<br>COOLING: 85°F ADJUSTABLE<br>HEATING: 65°F ADJUSTABLE<br>B. UNOCCUPIED MODE<br>1) SUPPLY FANS SHALL DE-ENERGIZE<br>2) OUTSIDE AIR DAMPER SHALL BE CLOSED<br>3) IF THE ZONE TEMPERATURE VARIES BEYONI   |
|          |                                       | 13. PROVIDE THROUGH-PENETRATION FIRESTO<br>DUCTWORK, AND CONDUITS TO MAINTAIN TH<br>PENETRATED. THROUGH-PENETRATION FIR<br>TESTED IN ACCORDANCE WITH ASTM E 814 (<br>OF 0.01 INCH OF WATER AND SHALL HAVE AN<br>RATING OF THE WALL PENETRATION. THROU<br>HORIZONTAL ASSEMBLIES SHALL BE INSTAL<br>WITH A MINIMUM POSITIVE PRESSURE DIFFE | P SYSTEMS FOR ALL INSULATED AND NO<br>HE FIRE-RESISTANCE RATING OF THE CO<br>ESTOP SYSTEM INSTALLED IN WALLS SI<br>OR UL 1479, WITH A MINIMUM POSITIVE F<br>N F RATING OF NOT LESS THAN THE REC<br>UGH-PENETRATION FIRESTOP SYSTEM<br>LED AS TESTED IN ACCORDANCE WITH<br>RENTIAL OF 0.01 INCH OF WATER AND S | DN-INSULATED PIPING,<br>DNSTRUCTION ASSEMBLY<br>HALL BE INSTALLED AS<br>PRESSURE DIFFERENTIAL<br>QUIRED FIRE-RESISTANCE<br>INSTALLED IN<br>ASTM E 814 OR UL 1479,<br>SHALL HAVE AN F | <ul> <li>OPERATE IN HEATING/COOLING MODE UNTIL<br/>AIR DAMPER SHALL REMAIN CLOSED.</li> <li>C. HEATING / COOLING MODE</li> <li>1) RTU SUPPLY FAN AND COMPRESSOR(S) SHA<br/>FAN AND COMPRESSOR(S) SHALL MAINTAIN</li> <li>D. AIR-SIDE ECONOMIZER</li> <li>1) AIR-SIDE ECONOMIZER MODE SHALL INITIALI<br/>AND DEW POINT TEMPERATURE.</li> <li>2) DEUS CHALL LITING AND COMPARISON OF ECONOMIC</li> </ul>  |
| F        |                                       | <ul> <li>14. PROVIDE LABOR, MATERIALS, DEVICES AND PROVIDE LABOR, MATERIALS, DEVICES AND PROVIDE A NEW, COMPLETE BUILDING AUTO (BAS / BMS). FURNISH, INSTALL AND COMMIS ALARM MONITORING, AS SPECIFIED OR DES INTEGRATED WITH THE BAS / BMS. THE INST</li> </ul>   | TURAL CONSTRUCTION DOCUMENTS FOR<br>SEMBLIES PENETRATED.<br>RELATED ITEMS NECESSARY FOR ALL FOMATIC TEMPERATURE CONTROL AND/C<br>ISION ALL TEMPERATURE CONTROLS, T<br>CRIBED IN THE CONTRACT DOCUMENTS<br>FALLER OF THE CONTROL SYSTEMS SHA   | IVAC EQUIPMENT TO<br>R MANAGEMENT SYSTEM<br>ME MANAGEMENT AND<br>G, COMPLETELY<br>ALL HAVE A MINIMUM OF  | <ul> <li>2) RTUS SHALL CHILLE 100% AR-SIDE LECONOM</li> <li>3) RTUS SHALL REDUCE AIR INTAKE TO THE DE AIR INTAKE WILL NO LONGER REDUCE COOL</li> <li><u>CO / NO2 SENSOR CONTROL</u></li> <li>A. WHEN A SENSOR DETECTS CARBON MONOXIDE</li> <li>1) THE RTU-1, 3, AND 4 SHALL DE-ENERGIZE</li> <li>2) THE MOTORIZED DAMPER(S) ASSOCIATED W</li> <li>3) THE CO/NO2 EXHAUST FANS SHALL ENERGIZE</li> </ul>  |
|          |                                       | <ul> <li>15. DUCTWORK:</li> <li>A. PROVIDE <u>CONSTANT AIR VOLUME</u> DUCTV<br/>2-INCH STATIC PRESSURE CLASS WITH D<br/>DUCT REINFORCEMENT TABLES. TRANS</li> </ul>  | L WORK WITH TRAINED MECHANICS. H<br>VICES OF THE OWNER'S PREFERRED CO<br>VORK FABRICATED OF ZINC-COATED SH<br>DUCT REINFORCING SPECIFIED IN THE S<br>VERSE JOINTS SHALL MEET THE SMACN  | DR ALL WORK UNDER THIS<br>DNTROLS CONTRACTOR,<br>EET STEEL SUITABLE FOR<br>MACNA RECTANGULAR   | <ul> <li>B. WHEN A SENSOR NO LONGER DETECTS CARBO</li> <li>1) THE CO/NO2 EXHAUST FANS SHALL DE-ENEF</li> <li>2) THE MOTORIZED DAMPER(S) SHALL CLOSE</li> <li>3) RTU-1, 3, AND 4 SHALL OPERATE NORMALLY.</li> <li>4) CO AND NO2 SENSORS SHALL BE INSTALLED</li> <li>M501. THE SYSTEM SHALL BE MONITORED B</li> <li>CO/NO2 WITHIN THE PARKING STRUCTURE A</li> <li>EXHAUST FANS SERVING THE ALARMING SEI</li> <li>TROUBLE ALARM SIGNAL AT THE BAS. THE (</li> </ul> |
| E        |                                       | <ul> <li>CRITERIA SPECIFIED IN ACCORDANCE W<br/>SHALL BE CLASS "A", UNLESS OTHERWIS</li> <li>B. RIGID ROUND AND ROUND FLEXIBLE DUC<br/>RADIUS OF 1.5 TIMES THE DUCT DIAMETE<br/>ACCORDANCE WITH THE LATEST APPLIC</li> </ul>   | THE CONTROLOGIZED WILL THE CONTOUR<br>THE LATEST APPLICABLE SMACNA S<br>NOTED.<br>TSHALL BE INSTALLED WITH A MINIMUL<br>R. SUPPORT RIGID ROUND AND ROUND<br>ABLE SMACNA STANDARDS.  | M CENTERLINE BENDING<br>D FLEXIBLE DUCT IN   | OVERHEAD ROLL-UP DOOR INTERLOCK<br>A. WHEN ONE OVERHEAD DOOR IS OPEN,<br>1) RTUS SHALL DE-ENERGIZE.<br>B. WHEN OVERHEAD DOORS ARE CLOSED  |
|          |                                       | C. RIGID ROUND DUCT AND ROUND FLEXIBL<br>LIMITATIONS OR THE PRIMARY OR SECO<br>RIGID ROUND DUCT, OR WOULD OTHERW<br>THE RESPECTIVE DIFFUSERS, VAV TERM<br>WITH EQUIVALENT FREE AREA, INSULATE<br>HORIZONTAL / VERTICAL OFFSETS, AS RE  | E DUCT SHALL NOT BE CRUSHED OR FL<br>NDARY DUCT DIMENSIONS DO NOT PER<br>VISE REQUIRE CRUSHING ROUND FLEXII<br>INALS, ETC., PROVIDE INSULATED RIGIE<br>ED ROUND TO FLAT OVAL TRANSITION F<br>EQUIRED, TO AVOID ALL OBSTRUCTIONS   | ATTENED. WHERE SPACE<br>MIT INSTALLATION OF THE<br>BLE DUCT RUNOUTS TO<br>FLAT OVAL DUCTWORK<br>ITTINGS, AND<br>FOR A COMPLETE   | <ol> <li>TOILET EXHAUST FAN</li> <li>A. TOILET EXHAUST FAN F-2 SHALL BE INTERLOCKI<br/>112. WHEN EITHER LIGHT SWITCH IS ON, THE FA</li> <li>INDOOR AIR QUALITY DURING CONSTRUCTION PHASE</li> </ol>   |
| D        |                                       | <ul> <li>D. ALL DUCTWORK SIZES SHOWN ARE SHEE<br/>REQUIRED INTERNAL SOUND LINING, SO<br/>SIZES TO ACCOUNT FOR ANY SOUND LIN</li> <li>E. TURNING VANES SHALL BE PROVIDED IN</li> </ul>  | ETMETAL SIZES. THE SIZES SHOWN ALF<br>THE CONTRACTOR SHALL NOT INCREAS<br>ING.<br>ALL 90 DEGREE ELBOWS. LOW PRESSU  | READY ACCOUNT FOR<br>SE SHEET METAL DUCT<br>JRE DUCTWORK WHICH IS  | CONTRACTOR SHALL DEVELOP AN INDOOR AIR QUA<br>THE METHODS AND PROCEDURES TO BE USED TO O<br>A. DUCT AND OTHER RELATED AIR DISTRIBUTION O<br>PLASTIC, SHEET METAL OR SHALL BE CLOSED B<br>DUST AND DEBRIS THAT COLLECTS IN THE SYST  |
|          |                                       | <ul> <li>31 INCHES OR GREATER IN WIDTH SHALL</li> <li>DUCTWORK BETWEEN 13 AND 30 INCHES</li> <li>DUCTWORK WHICH IS 12 INCHES OR LES</li> <li>OF MITERED ELBOWS WITH TURNING VAI</li> <li>F. ALL TAPS SHALL BE MOUNTED WITH SHE</li> <li>BACKING TAPE, SMOOTH WYE TAPS INT(</li> </ul>  | . BE PROVIDED WITH DOUBLE THICKNES<br>5 IN WIDTH, TURNING VANES MAY BE SIN<br>8 IN WIDTH SHALL BE PROVIDED WITH F<br>NES.<br>ETMETAL SCREWS IN ADDITION TO DOU<br>D DUCTWORK SHALL BE USED TO ACCO  | IGLE THICKNESS.<br>IGLE THICKNESS.<br>ADIUS ELBOWS IN LIEU<br>IBLE SIDED STICKY FOAM<br>MMODATE NEW FLEX   | <ul> <li>B. WHERE A FORCED AIR HVAC SYSTEM IS USED D</li> <li>B. WHERE A FORCED AIR HVAC SYSTEM IS USED D</li> <li>BE INSTALLED PRIOR TO SYSTEM FLUSH OUT AN</li> <li>C. WHERE SPACES ARE CONDITIONED DURING THE</li> </ul>   |
| С        |                                       | DUCT CONNECTIONS IF REQUIRED.<br>G. PROVIDE VOLUME DAMPERS AT ALL CON<br>TAKEOFFS, AND ALL DUCT-MOUNTED SU<br>SHEETMETAL INCREASERS/REDUCERS A<br>OR TAPS INTO DUCTWORK. NO VOLUME   | ISTANT AIR VOLUME DUCTWORK TAKEO<br>PPLY AND EXHAUST GRILLES / REGISTE<br>S REQUIRED TO MAKE FLEX DUCT CONI<br>DAMPERS SHALL BE LOCATED UPSTRE  | FFS, ALL FLEXIBLE DUCT<br>RS. PROVIDE<br>NECTIONS TO DIFFUSERS<br>AM OF VAV TERMINALS.   | <ul> <li>SHALL BE OF THE DUCTLESS VARIETY. DUCTED OR HIGHER.</li> <li>22. ENGINEER INSPECTION NOTIFICATION</li> <li>A. THE CONTRACTOR SHALL PROVIDE NOTIFICATION</li> </ul>   |
|          |                                       | <ul> <li>H. ALL DUCTWORK SHALL CONNECT TO EQ</li> <li>I. COORDINATE FRAMING OF SLAB-TO-SLAI<br/>TO DUCTWORK.</li> <li>J. IN LOCATIONS WHERE DUCTWORK PENE<br/>USED</li> </ul>  | UIPMENT WITH FLEXIBLE CONNECTIONS<br>B WALLS WITH DUCTWORK. FRAMING S<br>TRATES SLAB-TO-SLAB PARTITIONS, RIC  | S.<br>HALL NOT BE ATTACHED<br>GID DUCTWORK SHALL BE  | <ul> <li>A COMPLETED MECHANICAL SYSTEM.</li> <li>23. GUARANTEE:</li> <li>A. THE ENTIRE MECHANICAL SYSTEM INSTALLED U<br/>WORKING ORDER AND ANY WORK OR MATERIAL</li> </ul>  |
|          |                                       | <ul> <li>K. UNLESS NOTED OTHERWISE, NEW DUCT<br/>BLANKET WRAP INSULATION WITH VAPOI</li> <li>16. FIRE/SMOKE DAMPERS:</li> </ul>  | WORK SHALL BE COVERED WITH 1-1/2" T<br>R BARRIER ACCORDING TO THE RELEVA  | THICK GLASS FIBER  | <ul> <li>B. DURING THE YEAR GUARANTEE PERIOD, PROVID<br/>MECHANICAL SYSTEMS AND EQUIPMENT, APPAR<br/>THIS CONTRACT. PERFORM ALL WORK NECESS</li> </ul>  |
| <u>B</u> |                                       | <ul> <li>A. ALL FIRE DAMPERS SHALL COMPLY WITH<br/>SPECIFIED.</li> <li>B. ALL SMOKE DAMPERS SHALL COMPLY W</li> <li>C. DROWER SHALL COMPLY W</li> </ul>  | I UL 555. FIRE DAMPERS SHALL BE CLAS  | SS "B" UNLESS OTHERWISE  | SYSTEMS.<br>C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR<br>DAMAGES CAUSED BY OR RESULTING FROM DE  |
|          |                                       | <ul> <li>ALLOW FOR INSPECTION AND MAINTE</li> <li>OUTDOOR AIR INTAKE AND EXHAUST DAMPE</li> <li>A. ALL OUTDOOR AIR INTAKE AND EXHAUST<br/>THEIR ASSOCIATED FANS TO CLOSE WHI</li> </ul>  | THE AND SMOKE DAMPERS, SIZED AND<br>ENANCE OF THE DAMPER AND ITS OPER<br>ERS:<br>T DUCT MOTORIZED DAMPERS SHALL BE<br>EN NOT IN USE.  | EINTERLOCKED WITH  | <ul> <li>24. SHOP DRAWINGS AND SUBMITTALS:</li> <li>A. PRIOR TO THE BEGINNING OF WORK, SUBMIT CO<br/>CERTIFIED SUBMITTALS FOR ALL EQUIPMENT, D<br/>ENGINEER. ADDITIONALLY, FURNISH A DRAWING<br/>ALL SLAB PENETRATIONS, FOR OWNER'S APPROX</li> </ul>   |
| A        | 40                                    | D. DAIMPERS SHALL BE CLASS 1A DAMPERS  |   | UTIVI/OF AT T.U IN. WG.,   | 4.4   |
|          |                                       | 17   |   |  | די  |

## 12 13 AL GENERAL NOTES NCE WITH AMCA 500D.

PERS SHOWN ON THESE PLANS SHALL BE PROVIDED WITH SEALS AND HAVE A 10 CFM/SF AT 1.0 IN. WG., WHEN TESTED IN ACCORDANCE WITH AMCA 500D.

ED PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE ASSOCIATED S NOT LIMITED TO, WATERPROOFING (FOR EXAMPLE: CAULK OR FLASHING), CING, AND PROVIDING A BACKER ROD IF REQUIRED.

YPE, STYLE AND LOCATION OF ALL AIR DIFFUSERS, GRILLES, ETC., WITH CEILING GRID, AND LIGHTING FIXTURES TO ENSURE A SYMMETRIC AND/OR IGN AND CONSTRUCTION.

TER/FUSED DISCONNECTS FOR ALL MECHANICAL EQUIPMENT, UNLESS WISE.

D RELEASE ANY CFC- OR HCFC-BASED REFRIGERANT INTO THE ALLATION, STARTUP, OR SERVICING OF NEW OR EXISTING HVAC EQUIPMENT, CTLY. CONTRACTOR SHALL BE EPA CERTIFIED AND SHALL UTILIZE AN PURIFICATION/RECLAMATION SYSTEM THAT IS CAPABLE OF SEPARATION ESIDUAL MOISTURE, AND DOT-APPROVED CONTAINMENT OF RECOVERED

ATURE SENSORS SHALL BE INSTALLED 4'-0" AFF UNLESS NOTED OTHERWISE. RE SENSORS LOCATED ON PERIMETER WALLS/COLUMNS SHALL BE PROVIDED . EXACT LOCATIONS SHALL BE COORDINATED WITH ARCHITECT AND

MOSTATS/TEMPERATURE SENSORS IN LOCATIONS INDICATED ON THE EMPERATURE SENSORS SHALL NOT BE LOCATED ABOVE DIMMER SWITCHES ELECTRICAL DEVICES. THERMOSTATS/TEMPERATURE SENSORS SHALL BE F ADJACENT LIGHT SWITCH(ES), AND LOCATED IN CLOSE PROXIMITY TO DOOR INDICATED ON PLANS OR ARCHITECTURAL ELEVATIONS.

N OF ALL NEW HVAC EQUIPMENT TO ENSURE THAT ALL REQUIRED SERVICE ARE FREE FROM PARTITION FRAMING, SPRINKLER PIPING, CONDUIT, OR E PARTITION FRAMING MUST BE LOCATED WITHIN HVAC EQUIPMENT , FRAME A FULL-SIZED OPENING IN THE PARTITION FRAMING FROM TOP OF BUILDING STRUCTURE. WHERE NEW TENANT PARTITIONS AND EQUIPMENT S OF EXISTING HVAC EQUIPMENT, EXISTING EQUIPMENT SHALL BE

IENT LOCATED ABOVE INACCESSIBLE CEILINGS, PROVIDE ACCESS PANEL(S) R REGULAR MAINTENANCE AND REMOVAL OF EQUIPMENT FROM THE CEILING. ORDINATE EXACT LOCATION, SIZE, AND TYPE OF ACCESS PANELS WITH IGINEER.

ION / VENTILATION CONTROL SYSTEM

CO AND NO2 GAS DETECTION AND GARAGE VENTILATION CONTROL SYSTEM

GEN DIOXIDE SENSOR: PROVIDE A REMOTE WIRELESS COMBINATION D NITROGEN DIOXIDE (NO2) SENSOR TRANSMITTER AS LOCATED ON THE ENSOR SHALL UTILIZE A SOLID STATE SENSING ELEMENT, BE MICRO BOTH TEMPERATURE AND HUMIDITY COMPENSATED FOR LONG LIFE AND ENSORS, SENSOR SHALL HAVE A CONTINUOUS 2-YEAR BATTERY LIFE WITH IGHTS OR LED'S SHALL INDICATE: A) UNIT NORMAL OPERATION/NOT IN IT IN ALARM, AND C) SHALL INDICATE UNIT MALFUNCTION. IN THE UNIT IE SENSORS OUTPUT SHALL BE FAIL-SAFE AND INDICATE STEADY HIGH SENSOR RANGE SHALL BE 0-250 PPM AND NO2 SHALL UTILIZE AN T AND HAVE RANGE OF 0-10 PPM (PARTS PER MILLION). THE SENSOR CH 90% OF LEVEL BEING SENSED WITHIN 30 SECONDS. SYSTEM CONTROLLER SHALL CONTINUOUSLY MONITOR ALL REMOTE CONDITION IS DETECTED THE CONTROLLER THROUGH THE BAS SHALL

CT CLOSURE FOR 30 SECONDS. IF THE HIGH GAS CONDITION PERSISTS FOR E EXHAUST FAN CONTACTS SHALL CLOSE AND BAS STARTS ASSOCIATED THE MINIMUM FAN ON TIME SHALL BE FIELD SETTABLE FROM 5 TO 55 MENTS. SHOULD THE ALARM CONDITION REMAIN AFTER THE MINIMUM RUN XHAUST FAN CONTACTS SHALL REMAIN CLOSED (ON) AND A SECOND SHALL CLOSE, INITIATING AN ALARM TO THE BAS. ENGINEERING CEW SERIES OR EQUAL.

F OPERATIONS FOR ADDITIONAL INFORMATION.

ALL BE CLOSED IRE VARIES BEYOND THE SETPOINT TEMPERATURES, THE SYSTEM SHALL OLING MODE UNTIL THE TEMPERATURE SETPOINTS ARE MET. THE OUTSIDE

MPRESSOR(S) SHALL ENERGIZE. OUTSIDE AIR DAMPER SHALL OPEN. THE ) SHALL MAINTAIN THE HEATING/COOLING TEMPERATURE SETPOINTS. ODE SHALL INITIALIZE BASED ON OUTDOOR AIR DRY-BULB TEMPERATURE TURE. % AIR-SIDE ECONOMIZER WHEN OUTDOOR CONDITIONS ARE FAVORABLE. INTAKE TO THE DESIGN MINIMUM OUTDOOR AIR QUANTITY WHEN OUTDOOR GER REDUCE COOLING ENERGY USAGE.

ARBON MONOXIDE OR NITROGEN DIOXIDE, L DE-ENERGIZE (S) ASSOCIATED WITH THE INTAKE LOUVER SHALL OPEN NS SHALL ENERGIZE. R DETECTS CARBON MONOXIDE OR NITROGEN DIOXIDE, NS SHALL DE-ENERGIZE

ERATE NORMALLY. HALL BE INSTALLED AS INDICATED ON M103 AND IN DETAIL 01 ON DRAWING L BE MONITORED BY THE BAS TO MONITOR AND CONTROL THE LEVELS OF (ING STRUCTURE AREAS. UPON ACTIVATION OF A CO/NO2 SENSOR, THE THE ALARMING SENSOR SHALL AUTOMATICALLY ENERGIZE AND ACTIVATE A AT THE BAS. THE CO/NO2 SENSOR SHALL SEND AN ALARM SIGNAL TO THE DE LEVELS OF 25 PPM AND NO2 LEVELS OF 0.7 PPM, OPERATOR ADJUSTABLE.

ALL BE INTERLOCKED WITH THE LIGHT SWITCHES OF MENS 111 AND WOMENS VITCH IS ON, THE FAN SHALL ENERGIZE. ONSTRUCTION PHASE:

N INDOOR AIR QUALITY MANAGEMENT PLAN. THIS PLAN SHALL ADDRESS S TO BE USED TO COMPLY WITH THE FOLLOWING.

AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, HALL BE CLOSED BY AN APPROVED METHOD TO REDUCE THE AMOUNT OF LECTS IN THE SYSTEM FROM THE TIME OF ROUGH-IN INSTALLATION UNTIL ND COOLING EQUIPMENT. DUST AND DEBRIS SHALL BE CLEANED FROM YSTEM FLUSH OUT AND BUILDING OCCUPANCY.

SYSTEM IS USED DURING CONSTRUCTION, NEW RETURN AIR FILTERS SHALL STEM FLUSH OUT AND BUILDING OCCUPANCY. IONED DURING THE CONSTRUCTION PHASE, SPACE CONDITIONING SYSTEMS VARIETY. DUCTED SYSTEMS MAY BE USED WITH FILTERS RATED AT MERV 8

TION OVIDE NOTIFICATION TO THE ARCHITECT / ENGINEER TWO WEEKS PRIOR TO LOW ENGINEER TO PERFORM A PRE-CEILING CONCEALMENT INSPECTION OF SYSTEM.

STEM INSTALLED UNDER THIS CONTRACT SHALL BE LEFT IN PROPER ORK OR MATERIALS WHICH DEVELOP DEFECTS. EXCEPT FROM ORDINARY E YEAR FROM THE DATE OF FINAL ACCEPTANCE SHALL BE REPLACED CIAL USE SHALL NOT BE CONSTRUED AS FINAL ACCEPTANCE.

TEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS OF ALL EQUIPMENT, APPARATUS, DEVICES, ETC., AFFECTED AND INSTALLED UNDER ALL WORK NECESSARY TO ENSURE EFFICIENT AND PROPERLY FUNCTIONING

RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL RESPONSIBILITY FOR, ANY ESULTING FROM DEFECTS IN HIS WORK.

WORK, SUBMIT COORDINATED SHOP DRAWINGS AND MANUFACTURER R ALL EQUIPMENT, DUCTWORK, ETC., FOR REVIEW BY THE ARCHITECT AND URNISH A DRAWING SHOWING THE DIMENSIONED LOCATION AND SIZE OF OR OWNER'S APPROVAL.

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B. MECHANICAL EQUIPMENT SUBMITTALS SHALL CONTAIN, AT A MINIMUM, DIMENSIONED DRAWINGS OF SUBMITTED EQUIPMENT, FAN/PUMP CURVES INDICATING OPERATING PERFORMANCE AT DESIGN CONDITIONS, COOLING/HEATING CAPACITIES AT DESIGN CONDITIONS, AIR/WATER FLOW RATES AT DESIGN CONDITIONS, ELECTRICAL CHARACTERISTICS, OPTIONS AND ACCESSORIES INCLUDED AND EXCLUDED.

10

25. CLOSE-OUT DOCUMENTS:

11

A. RECORD DRAWINGS: MAINTAIN AT THE SITE AND FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVED SHOP DRAWINGS, REVISIONS, AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION. THE SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON COMPLETION OF WORK.

B. OPERATION & MAINTENANCE MANUALS: PROVIDE OWNER WITH A COPY OF EQUIPMENT SUBMITTALS AND MANUFACTURER'S OPERATION & MAINTENANCE MANUALS FOR ALL NEW EQUIPMENT PROVIDED UNDER THIS CONTRACT.

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|   |   | ME   | CHANI  | CAL S   | SYMBO   | DLS L                                      | IST   | Γ   |  |
|   |   | NEW RECTANGU<br>NEW ROUND DU<br>NEW ROUND DU<br>EXISTING RECTA<br>DUCT TO BE DE<br>DUCT TO BE DE<br>DUCT TO BE DE<br>DUCT WORK WIT<br>ACOUSTICAL SO<br>DUCT RISING UF<br>DUCT DROPPING<br>SUPPLY DUCT<br>RETURN DUCT<br>EXHAUST DUCT<br>EXHAUST DUCT<br>TURNING VANES<br>FLEXIBLE CONN<br>MOTORIZED DA<br>SCREENED OPE<br>SCREENED OPE<br>SCREENED OPE<br>ACCESS PANEL<br>NEW TO EXISTIN<br>LIMIT OF DEMON | CHANI<br>JLAR DUCT<br>CT<br>ANGULAR DUCT<br>MOLISHED<br>H1"<br>DUND LINING<br>H2-HOUR<br>CLOSURE<br>DOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN<br>ADDOWN | <b>CAL S</b>  | <b>SYMBO</b><br><b>C</b><br><b>C</b><br><b>C</b><br><b>C</b><br><b>C</b><br><b>C</b><br><b>C</b><br><b>C</b>  | DLS L                                      | LIST<br>RECTION S<br>IG DOWN<br>IG UP<br>IT PIPING<br>NSATE DF<br>EQUIPMEN<br>AL UNIT T<br>RESECTION<br>KER<br>RE SECTION<br>KER<br>RE DETAIL | E<br>BUNDLE<br>RAIN<br>NT DESIGNATIONS<br>AG<br>ON IS SHOWN<br>L IS SHOWN   |  |
|   |   |  |  |   |   |  |   |   |  |
|   |   | MEC  | HANIC  | AL AE   | BBRE\   | /IATI                                      | ON  | S   |  |
| ABV.<br>A/C<br>ADJ<br>AFF<br>ARCH<br>BAS<br>BHP<br>BLDG<br>BMS<br>BTU<br>CAP<br>CAV<br>CD<br>CFM<br>CG<br>CO2<br>DN<br>D<br>DB<br>DWG<br>EA<br>EAT<br>EFF<br>ESP<br>EWT<br>EXH<br>(E)<br>FA | ABOVE<br>AIR CONDITIONING<br>ADJUSTABLE<br>ABOVE FINISHED FLOU<br>ARCHITECTURAL<br>BUILDING AUTOMATIO<br>BRAKE HORSEPOWER<br>BUILDING<br>BUILDING MANAGEME<br>BRITISH THERMAL UNI<br>CAPACITY<br>CONSTANT AIR VOLUM<br>CEILING DIFFUSER<br>CUBIC FEET PER MINU<br>CEILING GRILLE<br>CARBON DIOXIDE<br>DOWN<br>CONDENSATE DRAIN<br>DRY BULB<br>DRAWING<br>EACH<br>ENTERING AIR TEMPE<br>EFFICIENT<br>EXTERNAL STATIC PR<br>ENTERING WATER TEM<br>EXHAUST<br>EXISTING<br>FACE AREA<br>NOTE:<br>THESE A<br>FLO | OR<br>IN SYSTEM<br>IT<br>ME<br>JTE<br>RATURE<br>ESSURE<br>MPERATURE<br>ARE STANDARD SY<br>ARAGE  | FD FI<br>FL FLA FL<br>FLA FL<br>FLA FL<br>FPM FE<br>FT FE<br>HP HC<br>HR HC<br>HTG HE<br>HZ HE<br>IN IN<br>KW KI<br>LAT LE<br>LB PC<br>LWT LE<br>MAX MI<br>MFR MI<br>MFR MI<br>MFR MI<br>MFR MI<br>MOD MI<br>MOD MI<br>(N) NE<br>NC NC<br>NO NC<br>NO NC<br>NPSH NE<br>OA OI<br>TMBOLS AND ABBRI<br>CA OI<br>TMBOLS AND ABBRI  | RE DAMPER<br>OOR<br>JLL LOAD AMPS<br>EXIBLE<br>EET PER MINUTE<br>EET<br>DRSEPOWER<br>DUR<br>EATING<br>ERTZ<br>CH<br>LOWATT<br>EAVING AIR TEMP<br>DUND<br>EAVING WATER T<br>AXIMUM<br>DO0 BTU/HOUR<br>INIMUM CIRCUIT<br>ANUFACTURER<br>INIMUM<br>AXIMUM OVERCL<br>DTOR OPERATEL<br>EW<br>DRMALLY IN CLO<br>DTOR OPERATEL<br>EW<br>DRMALLY IN CLO<br>DTOR OPERATEL<br>EW<br>DRMALLY IN OPE<br>ET POSITIVE SUC<br>JTDOOR AIR<br>EVIATIONS, AND | PERATURE<br>EMPERATURE<br>AMPS<br>JRRENT PROTEC<br>D DAMPER<br>SED POSITION<br>EN POSITION, NU<br>CTION HEAD<br>MAY NOT ALL AF<br>ON C/<br>REQUIRED (AREA<br>14,610 | TION V<br>MBER V<br>MBER V<br>Ax 0.75)     | DA<br>PPM<br>PRESS<br>PR<br>PRESS<br>PR<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R                                      | OUTDOOR AIR<br>PHASE<br>PARTS PER MILLIC<br>PRESSURE<br>QUANTITY<br>RELOCATED<br>RETURN AIR<br>REFRIGERANT, RE<br>RUNNING LOAD AI<br>ROOFTOP UNIT<br>SUPPLY AIR<br>SENSIBLE<br>COMBINATION SM<br>SOUND LINING<br>SQUARE<br>SUPPLY REGISTEN<br>TOTAL DISCHARG<br>TEMPERATURE<br>TOTAL<br>TYPICAL<br>VOLTS<br>VARIABLE AIR VON<br>MANUAL VOLUME<br>VELOCITY<br>WITH<br>WET BULB<br>CT DRAWINGS. | )N<br>FRIGERATION<br>MPS<br>OKE/FIRE DA<br>R<br>E HEAD<br>LUME<br>DAMPER |
|   |   |  |  |   | <u>ΡΔ\Λ/Ι</u>   |  |   |   |  |
|   |   | IVIEC  |  |   |   | ING L                                      | 191   |   |  |
|   |   |  | M101<br>M102<br>M103   | MECHANICAL FIF<br>MECHANICAL RC<br>MECHANICAL FIF   | RST FLOOR DEM<br>DOF LEVEL DEMO<br>RST FLOOR NFW  | OLITION PLAN<br>DLITION PLAN<br>WORK PI AN |   |   |  |

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M501

MECHANICAL DETAIL SHEET

![](_page_24_Figure_44.jpeg)

![](_page_25_Figure_0.jpeg)

| 13 | 12 | 11 | 10 | 9 | 8 |
|----|----|----|----|---|---|
|    |    |    |    |   |   |

![](_page_25_Figure_4.jpeg)

![](_page_26_Figure_0.jpeg)

![](_page_26_Figure_19.jpeg)

![](_page_27_Figure_0.jpeg)

| 13 12 11 10 9 | 8 |
|---------------|---|

![](_page_27_Figure_5.jpeg)

![](_page_28_Figure_0.jpeg)

| BASIS OF<br>DESIGN<br>(GREENHECK)  | QUANTITY         |
|--|------------------|
| SCE3-42-620-C30-VGD  | 2                |
| SQ-70-D  | 1                |
|  |                  |
| UP BLAST DISCHAR<br>UTILITY SET<br>VIBRATION ISOLATO<br>WALL COLLAR<br>WEATHERPROOF<br>ENCLOSURE<br>WALL SWITCH<br>HAND-OFF-AUTOMA<br>CONTROLLER | ge<br>Drs<br>Tic |

|               |                       | E   | ELEC         | TRIC     | CHE | ATE          | RS   |                 |        |                 |   |
|---------------|-----------------------|-----|--------------|----------|-----|--------------|--|-----------------|--------|-----------------|---|
| DESIG.        | DESCRIPTION           | CFM | CAPA         | ACITY    | EAT | ELEC. DATA   |  | BASIS OF DESIGN |        | QUANTITY        |   |
|               |                       |     | KW           | MBH      | °F  | AMP          | VOLT   | PH              |        |                 |   |
| WH-A          | WH, FR, IT, D, FI, FD | 100 | 3            | 10235    | 70  | 14.4         | 208  | 1               | Q-MARI | KAWH4404F       | 2 |
| ABBREVIATIONS |                       |     |              |          |     |              |  |                 |        |                 |   |
| FR            | FULLY RECESSED        | SM  | SURFACE M    | OUNTED   | FD  | FROM         | IT DISCHAR                                   | RGE             | WH     | WALL HEATER     |   |
| HD            | HORIZONTAL DISCHARGE  | СН  | CABINET HE   | ATER     | FI  | FROM         | IT INLET                                     |                 | BI     | BOTTOM INLET    |   |
| IT            | INTEGRAL THERMOSTAT   | CM  | CEILING MO   | UNTED    | TD  | TOP          | DISCHARGE                                    |                 | RI     | REAR INLET      |   |
| RT            | REMOTE THERMOSTAT     | D   | DISCONNEC    | T SWITCH | UH  | UNIT         | HEATER                                       |                 | SB     | SUPPORT BRACKET |   |
| BB            | BASEBOARD HEATER      | OF  | OIL - FILLED |          | LC  | LINE<br>(FOR | LINE VOLTAGE CONTACTORS<br>(FOR BAS CONTROL) |                 | S W    | WHITE           |   |

![](_page_28_Figure_16.jpeg)

|                                       |              | 17                                       | 16                 |                     |         | 15  | 14  | 13   | 12   |   | 11   | 10   | 9   | 8   |                              |                             |
|---------------------------------------|--------------|--|--------------------|---------------------|---------|---|---|--|--|---|--|--|---|---|------------------------------|-----------------------------|
| © GRIMM AND PARKER ARCHITECTURE, INC. |              |  |                    |                     |         |   |   | PLl  | JMBING   | GENERAL   | NOTES  |  |   | FIXTURE   | CO                           | NN                          |
|                                       |              |  |                    |                     |         | <u>GENERAL</u> :                            |   | ALL BE SIMILAR TO EXISTING OF  |  | PLUMBING:   |  |  |   | DESCRIPTION   | ITEM                         | WAS                         |
|                                       |              |  |                    |                     |         | COMPLIANC<br>IDENTIFIED                     | E WITH CURRENT CODE AND AUTHOR<br>HEREIN.   | DRITY REQUIREMENTS, UNLESS   | OTHERWISE SPECIFICALLY   | HAVING JURISDIC   | CONFORMING IN ALL RES<br>CTION, AND ALL APPLICA<br>IORITIES. INSTALL ALL E | BLE RULES, REGULATIONS, LAWS AND OR<br>EQUIPMENT IN COMPLIANCE WITH ACCEPT   | ES OF THE AUTHORITIES<br>DINANCES OF FEDERAL<br>ED INDUSTRY             | LAVATORY  | L                            | 2"                          |
|                                       |              |  |                    |                     |         | 2. ENGINEER'S<br>RENDERED                   | S CONSTRUCTION PHASE SERVICES<br>BY ENGINEER DO NOT RELIEVE CON                                       | ARE INTENDED TO BENEFIT THE  | E CLIENT ONLY. SERVICES<br>OF THE CONSTRUCTION                             | 2. REFER TO ARCHI                                       | MANUFACTURER'S REC   | OMMENDATIONS.<br>OR EXACT FIXTURE LOCATIONS AND ROUG   | GH-IN DIMENSIONS.   | FLOOR DRAIN   | WC<br>FD                     | 4"                          |
| Μ                                     |              |  |                    |                     |         | CONTRACTO                                   | S. ENGINEER DOES NOT HAVE THE<br>OR. ENGINEER IS NOT RESPONSIBLI<br>ES OF CONSTRUCTION, OR FOR SAF    | E FOR MEANS, METHODS, TECH<br>EFOR MEANS, METHODS, TECH<br>ETY PROGRAMS OR PRECAUTIO         | ECT, OR CONTROL THE<br>NIQUES, SEQUENCES, OR<br>DNS DURING                 | 3. VERIFY EXISTING<br>SHALL PROMPTL                     | PIPE INVERT ELEVATION<br>Y NOTIFY ENGINEER IN T                            | NS AND PIPING CONNECTIONS PRIOR TO C<br>THE EVENT OF A DISCREPANCY, PRIOR TO   | CONSTRUCTION AND<br>ANY WORK.   | -   | -                            | -                           |
|                                       |              |  |                    |                     |         | CONSTRUC<br>IN COMPLIA<br>REQUIREME         | TION. ENGINEER IS NOT RESPONSIE<br>NCE WITH THE CONSTRUCTION DOC<br>ENTS OF THE AUTHORITIES HAVING J  | BLE FOR CONTRACTOR'S FAILUR<br>CUMENTS OR APPLICABLE LAWS<br>JURISDICTION.                   | RE TO PERFORM THE WORK<br>, CODES, OR                                      | 4. SANITARY AND V                                       | ENT PIPING SHALL BE:   |  |   | -   | -                            | -                           |
|                                       |              |  |                    |                     |         | 3. NOTIFY THE                               | ARCHITECT AND ENGINEER FIVE W   | ORKING DAYS PRIOR TO CLOSE   | -IN OF FLOORS, CEILINGS,<br>SERVATION OF CONCEALER                         | A. CAST IRON<br>FITTINGS AN                             | (ASTM-A-888), CISPI STAI<br>ID HUBLESS JOISTS CON                          | NDARD 301, SERVICE WEIGHT, WITH CAST<br>FIRMING TO CISPI STANDARD 310, HUBLES  | IRON<br>SS GASKETS  | -   | -                            | -                           |
|                                       |              |  |                    |                     |         | INSTALLATIO<br>DOES NOT F                   | ONS PRIOR TO CLOSE-IN. CONTRAC<br>RELIEVE THE CONTRACTOR OF PRO                                       | TORS FAILURE TO PROVIDE REC<br>VIDING VISUAL OBSERVATION B                                   | QUIRED NOTIFICATION<br>Y THE ENGINEER,                                     | B. TYPE "DWV"   | COPPER WITH SOLDER   | D C-564.<br>DWV FITTINGS AND JOINTS.   |   | -   | -                            | -<br>                       |
|                                       |              |  |                    |                     |         | COST.                                       | REMOVING AND REPLACING OBSTRI   | UCTIONS, COVERINGS, AND FINI   | SHES AT NO ADDITIONAL  | C. PIPING SHAI<br>1) 1/8" (1%)                          | L BE INSTALLED AT A MI<br>FOR PIPES 3-INCHES AN                            | NIMUM SLOPE OF:<br>D LARGER  |   | -   | -                            | -                           |
| L                                     |              |  |                    |                     |         | 4. ENGINEER M<br>SPECIFICAL<br>OR DEVIATION | MAY CONSIDER DEVIATIONS AND SU<br>LY IDENTIFIED IN SUBMITTAL. ENGI<br>ONS FROM THE CONSTRUCTION DO    | IBSTITUTIONS WHEN SUBMITTEE<br>NEER SHALL NOT BE RESPONSIE<br>CUMENTS, NOT SPECIFICALLY IE   | ) ITEM IS CLEARLY AND<br>BLE FOR SUBSTITUTIONS<br>DENTIFIED AND SUBMITTED. | 2) 1/4" (2%)  | FOR PIPES SMALLER TH   | AN 3-INCHES  | TANDARDS  | -   | -                            | -                           |
|                                       |              |  |                    |                     |         | 5. CONTRACTO                                | OR SHALL BE RESPONSIBLE FOR OB  | TAINING, AND PAYMENT FOR, PE   | ERMITS, TESTS, TAP FEES,   | 5. DOMESTIC WATE  | R PIPING SHALL BE "TYP   | E - L" COPPER, INSULATED WITH 1/2" THICI   | ( GLASS FIBER   | -   | -                            | -                           |
|                                       |              |  |                    |                     |         | 6. NOTIFY OW                                | NER'S REPRESENTATIVE AT LEAST T   | TWO WORKING DAYS PRIOR TO I  | NTERRUPTION OF BUILDING  | G PROVIDE IDENTIF                                       | IA FLAME RETARDANT<br>IANGERS AND SHALL BE<br>FICATION ON ALL DOMES        | PROVIDED WITH A GALVANIZED STEEL INS<br>TIC WATER PIPE PER CODE AND INDUSTR  | SULATION SHIELD.<br>Y STANDARDS.  | 1. REFERENCE ARCHITECTUR  | RAL DRAWING                  | 3S FOR                      |
|                                       |              |  |                    |                     |         | THE BUILDIN                                 | SERVICES, OR ACCESS. CONTRACTON<br>NG OWNER'S REPRESENTATIVE.   | OR SHALL THE OBTAIN PRIOR WH   | RITTEN APPROVAL FROM   | 6. STORAGE TYPE V<br>STEEL OR .625" T                   | VATER HEATERS SHALL<br>HICK PLASTIC) DRIP PAN                              | BE PROVIDED WITH CODE APPROVED (24<br>IS, NOT LESS THAN 1-1/2" DEEP WITH 1" PA   | GAUGE GALVANIZED<br>N DRAIN. EXTEND TO                                  | REQUIREMENTS.<br>2. PROVIDE ESCUTCHEONS C<br>SPLIT HINGED TYPE ARE NO                           | ON ALL ROUG                  | ;H-IN HC<br>BLE.            |
|                                       |              |  |                    |                     |         | 7. THESE DRA<br>COMPONEN<br>WORK OF A       | WINGS ARE DIAGRAMMATIC AND INE<br>ITS. CONTRACTOR SHALL FIELD VEF<br>LL TRADES/DIVISIONS PRIOR TO INS | DICATE THE GENERAL LOCATION<br>RIFY EXISTING CONDITIONS AND<br>TALLATION.                    | I OF SYSTEMS AND<br>COORDINATE WITH THE                                    | SPILL OVER THE<br>AND PRESSURE F                        | NEAREST DRAIN, AS IND<br>RELIEF VALVE DISCHARC                             | ICATED ON DRAWINGS. SEPARATELY, EXT<br>GE TO SPILL OVER THE NEAREST DRAIN, O   | END TEMPERATURE<br>R AS INDICATED.                                      | <ol> <li>PROVIDE PRE-FORMED INS<br/>SUPPLY PIPES.</li> <li>4 COORDINATE DRAIN SIZE W</li> </ol> | SULATION ON                  | . ALL HA<br>G               |
| K                                     |              |  |                    |                     |         | 8. THE WORD                                 | "PROVIDE" IDENTIFIES THE REQUIRE  | EMENT TO FURNISH AND INSTAL  |  | 7. EXTENSIONS OF,<br>MATERIALS OF S/                    | AND NEW CONNECTION<br>AME TYPE, RATING, AND                                | S TO, EXISTING PIPING SYSTEMS SHALL BI<br>COMPOSITION AS EXISTING PIPING, UNLE   | E MADE WITH<br>SS OTHERWISE   |   |                              | ~                           |
|                                       |              |  |                    |                     |         | OPERATION<br>VALVES, CO                     | IAL AND COMPLETE WORKING SYSTE  | EM. THE WORD "PIPING" IDENTII<br>SUPPORT, HANGERS, DEVICES, A                                | FIES PIPE, JOINTS, FITTINGS  | S,<br>8. VALVES AND PIPI                                | IN.<br>NG ACCESSORIES SHAL   | L BE LINE SIZE. PROVIDE SUPPLY STOP V  | ALVES AT ALL  | FOUI  | PMF                          |                             |
|                                       |              |  |                    |                     |         | 9. SUBMIT A S                               | FOR A COMPLETE AND FUNCTIONAL CALED DRAWING WITH DIMENSIONE   | SYSTEM AS REQUIRED BY CODE   | E.<br>TRUCTURAL SLAB, FLOOR,   | NON-FLUSH VALV<br>9. PROVIDE (1) ONE                    | 'E TYPE FIXTURES.<br>TRAP PRIMER VALVE FO                                  | R EACH FLOOR DRAIN. CONNECT TO NEA   | REST COLD WATER   |   |                              |                             |
|                                       |              |  |                    |                     |         | AND WALL F<br>PROFESSIO                     | PENETRATIONS BEARING THE REVIE<br>NAL ENGINEER, PRIOR TO BEGINNIN                                     | W AND APPROVAL SEAL OF A ST<br>IG OF WORK.   | RUCTURAL REGISTERED  |   | A FIXTURE. MAINTAIN  |  |   | FD-1: TOILET ROOM FLOO<br>VANDAL-PROOF SC   | DR DRAIN - JC<br>REWS.       | )SAM 30                     |
|                                       |              |  |                    |                     |         | 10. PERFORM X<br>SAWING, TO                 | (-RAY OF THE AREAS TO BE PENETR<br>) VERIFY THAT PENETRATION LOCAT                                    | ATED, PRIOR TO CORE DRILLING   | 6, Chipping, and/or<br>Ons. All penetrations                               | ESCUTCHEON AT   | EACH EQUIPMENT CON   | NECTION THAT REQUIRES A POTABLE WAT  | ER CONNECTION.  | MV: MIXING VALVE - INS<br>A. WATTS MODEL I  | TALL ON BRA<br>_FUSG-B (ASS  | AIDED S<br>SE 1070          |
|                                       |              |  |                    |                     |         | STRUCTURA                                   | AL REGISTERED PROFESSIONAL ENG  | QUIRE X-RAY, FIELD INSPECTIO<br>BINEER.  | N AND APPROVAL OF A  | 11. CONTRACTOR IS<br>12. PURGE NEW OR I                 | PROHIBITED FROM USIN   | IG LEAD-BASED SOLDER.<br>R SYSTEMS OF DELETERIOUS MATTER AND   | DISINFECT PRIOR TO  | TG: TRAP GUARD  | , ,                          | ,                           |
|                                       |              |  |                    |                     |         | 11. FIRE SAFE (<br>WATERTIGH<br>SHOULD AN   | IN COMPLIANCE WITH AUTHORITY A<br>IT, PRIOR TO CLOSE-IN. FAILURE TO<br>IY DAMAGE OCCUR.               | PPROVED UL LISTINGS) AND SE/<br>DO SO WILL BE AT CONTRACTO                                   | AL ALL PENETRATIONS<br>DR'S RISK AND EXPENSE                               | UTILIZATION. THE<br>AND/OR BY AWW.                      | E METHOD TO BE FOLLON<br>A C651.   | NED SHALL BE IN ACCORDANCE WITH THE  | HEALTH AUTHORITIES  | A. RECTORSEAL "S  | SURESEAL" M                  | ODEL S                      |
|                                       |              |  |                    |                     |         | 12. COORDINAT                               | E WORK WITH THE NEW WORK AND  |  |  | 13. GAS FIRED EQUIP<br>PRESSURE REGU                    | MENT SHALL BE PROVIDE<br>LATORS, AND VENTS. AL                             | ED WITH GAS COCKS, UNIONS, DRIP LEGS,<br>L GAS FIRED EQUIPMENT, DEVICES, AND A   | SOLENOID VALVES,<br>CCESSORIES SHALL BE                                 |   |                              |                             |
|                                       |              |  |                    |                     |         | COORDINAT                                   | TION WITH NEW AND EXISTING COND   | ITIONS.  |  | PIPE SHALL BE SC<br>GAS PIPE FITTING                    | CHEDULE 40 BLACK STEE<br>SHALL COMPLY WITH A.                              | L GAS PIPING SHALL BE WELDED BY A QU<br>L, COMPLY WITH A.S.T.M.A. 53/A 53M, TYPE<br>S.M.E. B16.3 CLASS 150 FOR THREAD PIPE | ALIFY WELDER: ALL GAS<br>E E OR S, GRADE B. ALL<br>AND A.S.T.M. A 234/A |   |                              |                             |
|                                       |              |  |                    |                     |         | 13. DAMAGES T<br>CONTRACT<br>OWNER.         | O EXISTING CONDITIONS, EQUIPMEN<br>SHALL BE REPAIRED/REPLACED TO                                      | NT, OR APPARATUS DURING THE<br>MATCH ORIGINAL CONDITION A                                    | EXECUTION OF THIS<br>T NO ADDITIONAL COST TO                               | 234M FOR WELDE<br>NATURAL GAS PIP<br>PROVIDE PROTEC     | D FITTINGS. ALL GAS PIP<br>ING SYSTEM INDOOR US<br>TIVE YELLOW COATING     | E SHALL BE PAINTED YELLOW. PAINT SHAI<br>E SUCH AS LATEX OVER ALKYD PRIMER S<br>FOR EXTERIOR PIPING SYSTEM SUCH AS A       | LL BE LISTED FOR<br>YSTEM: M.P.I. INT. 5.1Q<br>ALKYD SYSTEM: M.P.I.     |   |                              |                             |
|                                       |              |  |                    |                     |         | 14. THROUGH-F<br>WITH N F P                 | PENETRATIONS OF RATED FIRE RESI<br>A 101 (AND 90A) F M APPROVED A                                     | ISTANT ASSEMBLIES/BARRIERS   | SHALL BE IN COMPLIANCE   | EXT. 5.1D. PROVID                                       | E IDENTIFICATION ON AL   | L GAS PIPE PER CODE AND INDUSTRY ST  | ANDARDS.  |   |                              |                             |
| Н                                     |              |  |                    |                     |         | NON-COMBL<br>U.L. LISTED                    | JSTIBLE PENETRATING ITEM (PIPE) A<br>FIRE RATED MATERIAL WITH A RATI                                  | AND NON-COMBUSTIBLE SLEEVE<br>NG EQUAL TO THE BARRIER PEN                                    | E WITH F.M. APPROVED AND<br>ETRATED.                                       | FIRE PROTECTION:  |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | THROUGH-F<br>COMPLIANC<br>BY THE AUT        | PENETRATIONS AND FIRE SAFING OF<br>E WITH THE U.L. FIRE RESISTANCE I<br>HORITY HAVING JURISDICTION.   | F FIRE RATED FLOORS AND WAL<br>DIRECTORY (LATEST ADOPTED F                                   | LS SHALL BE IN<br>EDITION) AND AS REQUIRED                                 | 1. THE BUILDING IS<br>2. MODIFY THE EXIS                | PROTECTED BY AN AUTO   | DMATIC SPRINKLER SYSTEM.   | AND APPURTENANCES.  |   |                              |                             |
|                                       |              |  |                    |                     |         | 15. PROVIDE DI                              | ELECTRIC PIPING UNIONS BETWEEN  | I DISSIMILAR METALS.   |  | AS REQUIRED TO<br>AND RENDER THE                        | ACCOMMODATE THE NE<br>AREAS BEING MODIFIEI                                 | EW LAYOUT, AS INDICATED ON THE ARCHI<br>D AS "FULLY SPRINKLED" IN COMPLIANCE   | FECTURAL DOCUMENTS,<br>WITH NFPA-13, AND THE                            |   |                              |                             |
|                                       |              |  |                    |                     |         | 16. PIPING SHAI                             | LL NOT COME INTO DIRECT CONTAC  |  | JRE IN ANY LOCATION.   | 3. MODIFY EXISTING                                      | G FIRE PROTECTION SYS  | TEMS, BACK TO THE SOURCE, AS REQUIRI   | ED TO PROVIDE THE   |   |                              |                             |
|                                       |              |  |                    |                     |         | COMPLETIO                                   | ILY CLEAN WORK AREA DAILY AND S<br>IN OF THE CONTRACT.  | HALL REMOVE TRASH AND DEBI   | RIS FROM SITE AFTER  | HYDRAULIC DEM<br>AUTHORITY HAVI                         | ANDS OF THE NEW WOR<br>NG JURISDICTION.                                    | k and supply piping in compliance wit  | TH NFPA-13, AND THE   |   |                              |                             |
| G                                     |              |  |                    |                     |         | 18. PIPE HANGE<br>CODE REQU<br>WITH NFPA.   | ERS AND SUPPORTS SHALL BE PROV<br>JIREMENTS. FIRE PROTECTION PIPIN<br>PIPE HANGERS AND SUPPORTS FO    | /IDE IN ACCORDANCE WITH INDU<br>NG SUPPORTS AND HANGERS SI<br>NR COPPER PIPING SHALL BE B-L  | JSTRY STANDARDS AND<br>HALL BE IN COMPLIANCE<br>.INE SYSTEMS, INC.         | 4. MODIFY EXISTING<br>OBSTRUCTIONS,<br>DEVICES, LIGHTIN | FIRE PROTECTION SYS<br>INCLUDING, BUT NOT LIN<br>NG, PROJECTION SCREE      | TEMS AS REQUIRED TO ACCOMMODATE N<br>ITED TO, CEILING ELEVATION CHANGES, F<br>NS, EQUIPMENT, AND STRUCTURAL MEMBI          | EW AND EXISTING<br>PIPING, DUCTWORK, AIR<br>ERS.                        |   |                              |                             |
|                                       |              |  |                    |                     |         | "DURA-COPI<br>HARDWARE                      | PER" COPPER COATED EPOXY PAIN<br>. COPPER PLATED, OR COPPER CLA                                       | TED PIPE HANGERS AND SUPPO<br>AD, PIPE HANGERS AND SUPPOR                                    | RTS WITH ZINC PLATED<br>RTS ARE NOT ACCEPTABLE,                            | 5. COORDINATE WIT                                       | TH THE WORK OF ALL DIV   | ISIONS.  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | AND ARE NO<br>STRUCTURE<br>DIRECTLY F       | E. NO PIPE OR EQUIPMENT SUPPORT<br>ROM STRUCTURE ELEMENTS. ALL S                                      | FPORT ALL PIPING AND EQUIPME<br>T FROM PIPING SYSTEM IS ALLO<br>UPPORT IS SUBJECT TO STRUC   | ENT DIRECTLY TO BUILDING<br>WED OTHER THAN<br>TURE ENGINEER'S REVIEW       | ,<br>6. OBTAIN AND COM<br>REQUIREMENTS.                 | IPLY WITH ALL BUILDING   | OWNER'S FIRE PROTECTION STANDARDS  | AND INSURANCE   |   |                              |                             |
|                                       |              |  |                    |                     |         | AND APPRO<br>19. CONTRACTO                  | IVAL.<br>OR TO PROVIDE APPLICABLE SUBMI   | TTALS, SHOP DRAWINGS, CALCU  | JLATIONS, AND ANY OTHER  | 7. SHOP DRAWING S                                       | SUBMITTALS SHALL BEAI  | R THE "REVIEW COMMENTS" AND "APPROV  | AL SEAL" OF THE FIRE  |   |                              |                             |
|                                       |              |  |                    |                     |         | ITEMS THAT<br>APPLICABLE                    | MAY BE REQUIRED FOR REVIEW AN<br>E JURISDICTION(S) PRIOR TO COMME                                     | ND APPROVAL BY THE OWNER'S ENCEMENT OF WORK.   | DESIGN TEAM AND/OR THE   | 8. PROVIDE INSTAL                                       |  | COMPLIANT WITH THE LATEST ADOPTED E  | EDITION(S) OF NFPA AND  |   |                              |                             |
| E                                     |              |  |                    |                     |         |   | ) SALVAGE:  |  |  | OF THE EXISTING   | FINISHED CONDITIONS<br>OF INISHED CONDITIONS<br>ON, UNLESS NOTED OTI       | IN SIMILAR ADJACENT AREAS OR IN ACCO<br>HERWISE HEREIN.  | RDANCE TO THE   |   |                              |                             |
|                                       |              |  |                    |                     |         | AREA BEING<br>EXAMINE CO                    | G MODIFIED. PROVIDE LABOR AND M<br>ONTRACT DOCUMENTS PRIOR TO SU                                      | R REQUIRED FOR A NEW OR AC<br>IATERIAL TO ACHIEVE SUCH ENE<br>JBMISSION OF BIDS. IDENTIFY TO | DS. VISIT THE SITE AND<br>THE ENGINEER                                     | 9. DO NOT INSTALL<br>ACCESS PANEL/E                     | PIPING BENEATH AIR HA<br>DOOR. INSTALL PIPING A                            | NDLING DEVICES OR THAT INTERFERE WI<br>T LEAST 2-INCHES ABOVE LIGHT FIXTURES   | TH ANY TYPE OF<br>S TO ALLOW FOR  | (REI  | E<br>FER TO MECH<br>FOR MORE | EXHAUS<br>HANICAI<br>INFORI |
|                                       |              |  |                    |                     |         | OBSERVED<br>RESOLUTIO<br>ACKNOWLE           | FAULTS OR AMBIGUITY IN THE CONT<br>N PRIOR TO SUBMISSION OF BIDS. S<br>DGMENT OF ACCEPTANCE OF THE C  | TRACT DOCUMENTS, AND PROVI<br>SUBMISSION OF BID CONSTITUTE<br>CONTRACT DOCUMENTS AS AN A     | DE OPPORTUNITY FOR<br>S THE CONTRACTOR'S<br>ADEQUATE DEFINITION OF         | FUTURE RELOCA   | TION OF LIGHT FIXTURE  | S WITHOUT PIPING REMOVAL/MODIFICATIC   | IONS HAVE BEEN  |   |                              |                             |
|                                       |              |  |                    |                     |         | SCOPE OF V<br>DOCUMENTS                     | NORK. CONTRACTOR'S EXTRA COS<br>S SHALL NOT BE CONSIDERED OR AG                                       | T CLAIMS BASED ON INADEQUAD<br>CCEPTED.  | CY OF CONTRACT   | IDENTIFIED BY T<br>NON-COMPLIANT                        | HE ARCHITECT. NOTIFY   | ARCHITECT OF SPRINKLER HEAD LOCATIO<br>FY DENSITY COVERAGE REQUIREMENTS, F   | NS THAT ARE<br>PRIOR TO   |   | DRAF                         | T HOOE                      |
|                                       |              |  |                    |                     |         | 2. WORK INDIC<br>EXISTING CO                | CATED TO BE DEMOLISHED, ON THE<br>ONDITIONS MADE AVAILABLE TO THE                                     | SE PLANS, IS BASED ON DOCUM<br>E ENGINEER, AND FIELD OBSER                                   | ENTS REPRESENTATIVE OF<br>/ATIONS WHERE MADE                               | 11. SPRINKLER HEAI                                      | DF SPRINKLER PLANS.<br>DS SHALL BE BASE BUILI                              | DING STANDARD. WHERE NO BUILDING STA   | ANDARD EXISTS,  |   | A.S.M.E                      |                             |
|                                       |              |  |                    |                     |         | ACCESSIBLI<br>WORK, PRIC                    | e to the engineer. Advise the en<br>Dr to beginning the work.   | NGINEER OF DISCREPANCIES TH  | IAT AFFECT THE PROPOSED  | O SPRINKLER HEA<br>DIRECTED BY TH<br>1) FINISHED AR     | DS SHALL BE VICTAULIC<br>E OWNER:<br>EAS WITH WHITE FINISH.                | CORP. FULLY CONCEALED, ADJUSTABLE.   | UNLESS OTHERWISE  |   | EXTE                         |                             |
| <u> </u>                              |              |  |                    |                     |         | 3. DEMOLITION<br>ACCORDAN                   | N REFUSE OF EXISTING SYSTEMS SH<br>CE WITH APPLICABLE CODES, REGU<br>REGULATIONS CONTRACTOR SHALL     | HALL BE REMOVED FROM THE SI<br>JLATIONS, REMEDIATION, AND HA                                 | TE AND DISPOSED OF IN<br>AZARDOUS WASTE                                    | 2) FINISHED AR<br>3) UNFINISHED                         | EAS WITH OTHER FINISH<br>AREAS SHALL HAVE, UPI                             | I, SHALL HAVE POLISHED CHROME COVER<br>RIGHT BRASS SPRINKLER HEAD.   | HEAD PLATE.   |   | OVER                         | SAFE F                      |
|                                       |              |  |                    |                     |         | MEANS NEC                                   | ESSARY FOR PROPER REMOVAL, CO   | ONTAINMENT, REMEDIATION, AN  | D DISPOSAL OF MATERIALS  | CEILING TILES OF  | N THE "CENTER OF CEILI<br>OPEN AREAS. WHEN BU                              | NG TILES" IN SMALLER ROOMS AND CENT<br>JILDING STANDARDS, OR EXISTING CONDI  | ERED ONE-WAY IN<br>TIONS, REQUIRE                                       |   | UNION                        |                             |
|                                       |              |  |                    |                     |         | 4. SALVAGE SI<br>ARCHITECT                  | PECIFIC MATERIALS AND EQUIPMEN<br>, ENGINEER, AND/OR CONTRACT DO                                      | T IDENTIFIED AND WHEN SO DIR<br>CUMENTS.   | ECTED BY THE OWNER,  | SPRINKLER HEAD<br>SHALL COMPLY, A                       | OS CENTERED IN CEILING<br>AND LOCATE HEADS WITI                            | G TILES THROUGHOUT (IN BOTH DIRECTION<br>HIN 1-INCH OF CENTER OF CEILING TILE IN   | NS), THE CONTRACTOR<br>BOTH DIRECTIONS.                                 |   |                              |                             |
|                                       |              |  |                    |                     |         | 5. COORDINAT<br>CONDITIONS                  | E DEMOLITION AND SALVAGE OF EX<br>S OF ALL DIVISIONS. MINOR DEVIAT                                    | (ISTING SYSTEMS WITH NEW WC<br>IONS MAY BE REQUIRED FOR CC                                   | NRK AND EXISTING<br>OORDINATION WITH NEW                                   |   |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | 6. REMOVE AL                                |   | I PIPING, EQUIPMENT, FIXTURES  | , AND APPURTENANCES NO   | •   |  |  |   |   |                              |                             |
| D                                     |              |  |                    |                     |         | DEAD-ENDS                                   | TO SATISFY CODE REQUIREMENTS  | RABLE SYSTEM. ELIMINATE PRO<br>. PLUG/CAP PIPE DEAD-ENDS B/                                  | ACK AT THE MAIN/RISER.   |   |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | 7. THE WORK I<br>CUTTING, P/<br>USE OF THE  | INCLUDES REQUIRED AND NECESSA<br>ATCHING, AND INCIDENTAL WORK TH<br>E EXISTING SYSTEMS AND PIPING TO  | NRY MODIFICATIONS, EXTENSION<br>HERETO, AS REQUIRED TO MAIN                                  | IS, ADAPTERS, REPAIRS,<br>ITAIN THE OPERATION AND                          |   |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | 8. CONTRACTO                                | OR SHALL MAINTAIN THE FIRE INTEG  | RITY OF THE BUILDING. REPAIR   | REPLACE EXISTING FIRE  |   |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | THROUGH-F<br>9. CONTRACTO                   | PENETRATIONS, NO LONGER REQUIF  | RED, WHERE PIPING IS REMOVED   | ).<br>W CONDITIONS DURING  |   |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         | THE EXECU<br>THE ARCHIT                     | TION OF THIS CONTRACT, AND SHAL<br>FECT AND/OR OWNER.   | LL REPAIR/REPLACE, SIMILAR, TO   | D THE SATISFACTION OF  |   |  |  |   |   |                              |                             |
| С                                     | r            |  |                    |                     |         |   |   |  |  |   |  |  |   |   |                              |                             |
|                                       |              |  |                    |                     |         |   | PLUMBING I  | FIXTURE SCHE   | DULE   |   |  |  |   |   |                              |                             |
|                                       | MARK         | DESCRIPTION                              | ROUGH              | I-IN SIZE (II       | NCH.)   | FIXTURE                                     | MANUFACTURER  | MODEL NO.  |  | REM   | /ARKS  |  |   |   |                              |                             |
|                                       |              |  | U.VV.   H.W        | י. טאאט<br>אטאראווא |         | WATER CLOSET                                | AMERICAN STANDARD   | 2854.016.020   | MADERA 1.6 GPF EVER  | RCLEAN TOILET WITH EXPOSE                               | D 1-1/2" MANUAL FLUSH '  | VALVE SYSTEM. FLOOR-MOUNTED, SIPHO   | N JET FIXTURE, WHITE  |   |                              |                             |
|                                       | <u>WC-1</u>  | WATER CLOSET                             | 1" -               | 4"                  | 2"      | SEAT  | AMERICAN STANDARD   | 5901.100   | ELONGATED, OPEN FR   |   | OSET SEAT, EVERCLEAN   | SURFACE, WHITE COLOR.  |   |   |                              |                             |
|                                       |              |  |                    |                     | ļļ      | FLUSH VALVE                                 | -   |  | FLUSH VALVE PROVIDE  | ED WITH WATER CLOSET AS P                               | ART OF A PACKAGED SYS  | STEM.  |   |   |                              |                             |
| <u> </u>                              |              |  |                    |                     |         | LAVATORY                                    | AMERICAN STANDARD   | 0954.004EC.020   | ADA COMPLIANT, WAL   | L-MOUNT FIXTURE WITH EVER                               | RCLEAN SURFACE, WHITE  |  |   |   |                              |                             |
|                                       |              |  | 4/011              |                     |         | SUPPORT                                     | J.R. SMITH  | LABOR SAVER 0710   | FLOOR MOUNTED LAVA   | ATORY SUPPORT WITH CONCI                                | EALED ARMS. COORDINA   | TE INSTALLATION OF SUPPORT WITH FIXT   | URE LAVATORY.   |   |                              |                             |
|                                       | <u>L-1</u>   |  |                    |                     |         | P-TRAP                                      | MCGUIRE   | 8872CBECO  | ASSE 1070 MIXING VAL   | VE SET AT 105°F.<br>ST BRASS BODY WITH CLEANO           | UT, WITH 17 GAUGE SEA  | MLESS TUBULAR WALL BEND AND FLANGE   |   |   |                              |                             |
|                                       |              |  |                    |                     |         | SUPPLY & STOP                               | KEENEY MANUFACTURING  | 2622PCL12CRLF  | CHROME-PLATED FINIS  | SH, WHEEL HANDLES, COMPR                                | ESSION NUTS & SLEEVES  | S, AND SHALLOW FLANGES.  |   |   |                              |                             |
|                                       | <u>BFS-1</u> | COOLER / BOTTLE<br>FILLING STATION (ADA) | 1/2" -             | 2"                  | 2"      | BOTTLE FILLING<br>STATION/COOLER            | ELKAY EZH2O   | EMABFDWSSK   | WALL MOUNTED, SING   | LE COOLER, NON-FILTERED, N                              | ION REFRIGERATED UNI   | T WITH BOTTLE FILLING STATION, LEAD FR   | EE DESIGN.  |   |                              |                             |
| A                                     | NOTE: PLUMB  | BING FIXTURE SPECIFICATIONS SH           | HALL BE COORDINATE | D WITH THE ARC      | HITECT. |   |   |  |  |   |  | 1  |   |   |                              |                             |
| 18                                    |              | 17                                       | 16                 |                     |         | 15  | 14  | 13   | 12   |   | 11   | 10   | 9   | 8   |                              |                             |

| 13 12  | 11 10 9   | 8   |                            |   | 7              |             |               | 6                        | 5 4 3 2  |
|--|---|---|----------------------------|---|----------------|-------------|---------------|--------------------------|--|
| PLUMBING G   | ENERAL NOTES  | FIXTURE   | CO                         | NNE   | CTIC           | DN S        | SCHI          | EDULE                    | PLUMBING SYMBOLS LIST  |
|  | PLUMBING:   | DESCRIPTION   | ITEM                       | WASTE                                       | VENT           | нw          | cw            | REMARKS                  | SANITARY WASTE PIPE SAN  |
| N SHALL BE SIMILAR TO EXISTING CONDITIONS AND SHALL BE IN<br>UTHORITY REQUIREMENTS, UNLESS OTHERWISE SPECIFICALLY  | <ol> <li>PROVIDE WORK CONFORMING IN ALL RESPECTS TO THE LATEST APPLICABLE CODES OF THE AUTHORITIES<br/>HAVING JURISDICTION, AND ALL APPLICABLE RULES, REGULATIONS, LAWS AND ORDINANCES OF FEDERAL<br/>AND LOCAL AUTHORITIES. INSTALL ALL EQUIPMENT IN COMPLIANCE WITH ACCEPTED INDUSTRY<br/>STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.</li> </ol>                                    | LAVATORY<br>WATER CLOSET  | L<br>WC                    | 2"<br>4"                                    | 2"<br>2"       | 1/2"<br>-   | 1/2"<br>1"    | -<br>-<br>-              | VENT         V.         ♀         ♀         water ha            HOT WATER PIPE         HW         ▶         PIPE INCRE   |
| CES ARE INTENDED TO BENEFIT THE CLIENT ONLY. SERVICES<br>CONTRACTOR FROM OBLIGATIONS OF THE CONSTRUCTION<br>THE AUTHORITY TO SUPERVISE, DIRECT, OR CONTROL THE   | 2. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT FIXTURE LOCATIONS AND ROUGH-IN DIMENSIONS.   | FLOOR DRAIN   | FD                         | 4"  | 2"             | -           | 1/2"          | PROVIDE TRAP GUARD       | COLD WATER PIPE CW     PIPE SLEEV  |
| SIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, OR<br>& SAFETY PROGRAMS OR PRECAUTIONS DURING<br>DNSIBLE FOR CONTRACTOR'S FAILURE TO PERFORM THE WORK   | 3. VERIFY EXISTING PIPE INVERT ELEVATIONS AND PIPING CONNECTIONS PRIOR TO CONSTRUCTION AND SHALL PROMPTLY NOTIFY ENGINEER IN THE EVENT OF A DISCREPANCY, PRIOR TO ANY WORK.   | -   | -                          | -   | -              | -           | -             | -                        | → F → FIRE MAIN F O → CLEAN OUT  |
| DOCUMENTS OR APPLICABLE LAWS, CODES, OR<br>ING JURISDICTION.   | 4. SANITARY AND VENT PIPING SHALL BE:   | -<br>-  | -                          | -   | -              | -           | -             | -                        | DOMESTIC HOT WATER HWR<br>RETURN PIPE O-PIPE TURNI   |
| /E WORKING DAYS PRIOR TO CLOSE-IN OF FLOORS, CEILINGS,<br>NEER OPPORTUNITY FOR VISUAL OBSERVATION OF CONCEALED<br>IRACTORS FAILURE TO PROVIDE REQUIRED NOTIFICATION  | A. CAST IRON (ASTM-A-888), CISPI STANDARD 301, SERVICE WEIGHT, WITH CAST IRON<br>FITTINGS AND HUBLESS JOISTS CONFIRMING TO CISPI STANDARD 310, HUBLESS GASKETS<br>SHALL CONFORM TO ASTM STANDARD C-564.   | -   |                            | -   | -              | -           | -             | -<br>-<br>-              | EXISTING S   |
| PROVIDING VISUAL OBSERVATION BY THE ENGINEER,<br>STRUCTIONS, COVERINGS, AND FINISHES AT NO ADDITIONAL  | B. TYPE "DWV" COPPER WITH SOLDER DWV FITTINGS AND JOINTS.   | -   | -                          | -   | -              | -           | -             | -                        | 、<br>、<br>、<br>、<br>、<br>、<br>、<br>、<br>、<br>、<br>、<br>、<br>、<br>、   |
| D SUBSTITUTIONS WHEN SUBMITTED ITEM IS CLEARLY AND   | <ul> <li>C. PIPING SHALL BE INSTALLED AT A MINIMUM SLOPE OF:</li> <li>1) 1/8" (1%) FOR PIPES 3-INCHES AND LARGER</li> <li>2) 1/4" (2%) FOR PIPES SMALLER THAN 3-INCHES</li> </ul>   | -   | -                          | -<br>-                                      | -              | -<br>-      | -<br>-        | -<br>-<br>-              | BACKFLOW PREVENTER B.F.P.  |
| N DOCUMENTS, NOT SPECIFICALLY IDENTIFIED AND SUBMITTED.  | D. PROVIDE IDENTIFICATION ON ALL SANITARY PIPE PER CODE AND INDUSTRY STANDARDS.   | -   | -                          | -   | -              | -           | -             | -<br>-<br>-              | SHUT-OFF VALVE     (NEW TO     TERMINATI   |
| FOR INSPECTIONS BY AUTHORITIES HAVING JURISDICTION.  | <ol> <li>DOMESTIC WATER PIPING SHALL BE "TYPE - L" COPPER, INSULATED WITH 1/2" THICK GLASS FIBER<br/>INSULATION WITH A FLAME RETARDANT VAPOR BARRIER JACKET. INSULATION SHALL BE CONTINUOUS<br/>THROUGH PIPE HANGERS AND SHALL BE PROVIDED WITH A GALVANIZED STEEL INSULATION SHIELD.<br/>PROVIDE IDENTIFICATION ON ALL DOMESTIC WATER PIPE PER CODE AND INDUSTRY STANDARDS.</li> </ol> | NOTES:  |                            |   |                |             |               |                          | BALANCING VALVE B.V.<br>PRESSURE REDUCING VALVE (#) SHEET NOT  |
| ACTOR SHALL THE OBTAIN PRIOR WRITTEN APPROVAL FROM   | <ol> <li>STORAGE TYPE WATER HEATERS SHALL BE PROVIDED WITH CODE APPROVED (24 GAUGE GALVANIZED<br/>OTECH OR COST THREE DATES SHALL BE PROVIDED WITH CODE APPROVED (24 GAUGE GALVANIZED<br/>OTECH OR COST THREE DATES SHALL BE PROVIDED WITH CODE APPROVED (24 GAUGE GALVANIZED</li> </ol>  | REQUIREMENTS.<br>2. PROVIDE ESCUTCHEONS C   | ON ALL ROU                 |   | ATER AND C     | OLD WATER   | SUPPLIES TO   | PLUMBING FIXTURES,       | DRAIN (TYPE AS INDICATED)  |
| D INDICATE THE GENERAL LOCATION OF SYSTEMS AND<br>O VERIFY EXISTING CONDITIONS AND COORDINATE WITH THE<br>O INSTALLATION.  | STEEL OR .625" THICK PLASTIC) DRIP PANS, NOT LESS THAN 1-1/2" DEEP WITH 1" PAN DRAIN. EXTEND TO<br>SPILL OVER THE NEAREST DRAIN, AS INDICATED ON DRAWINGS. SEPARATELY, EXTEND TEMPERATURE<br>AND PRESSURE RELIEF VALVE DISCHARGE TO SPILL OVER THE NEAREST DRAIN, OR AS INDICATED.  | <ul> <li>3. PROVIDE PRE-FORMED INS<br/>SUPPLY PIPES.</li> <li>4. COORDINATE DRAIN SIZE W</li> </ul> | SULATION OF                | N ALL HANDIC                                | APPED (AD/     | A) FIXTURES | , P-TRAPS, AN | IGLE STOPS AND           | #     DETAIL IDENTIFICATION     W     DOMESTIC       W     -     BISER STA   |
| QUIREMENT TO FURNISH AND INSTALL A COMPLETE SYSTEM<br>ESTS, AND ADJUSTED AS NECESSARY TO RENDER A FULLY<br>SYSTEM. THE WORD "PIPING" IDENTIFIES PIPE, JOINTS, FITTINGS,  | 7. EXTENSIONS OF, AND NEW CONNECTIONS TO, EXISTING PIPING SYSTEMS SHALL BE MADE WITH<br>MATERIALS OF SAME TYPE, RATING, AND COMPOSITION AS EXISTING PIPING, UNLESS OTHERWISE<br>IDENTIFIED HEREIN.  |   |                            |   |                |             |               |                          |  |
| RS, SUPPORT, HANGERS, DEVICES, AND ACCESSORIES AS<br>NAL SYSTEM AS REQUIRED BY CODE.   | 8. VALVES AND PIPING ACCESSORIES SHALL BE LINE SIZE. PROVIDE SUPPLY STOP VALVES AT ALL NON-FLUSH VALVE TYPE FIXTURES.   | EQUI  | PME                        | ENTS  | SPE(           |             |               | ONS                      | PLUMBING ABBREVIATIONS   |
| IONED LOCATION AND SIZE OF ALL STRUCTURAL SLAB, FLOOR,<br>EVIEW AND APPROVAL SEAL OF A STRUCTURAL REGISTERED<br>NNING OF WORK.   | <ol> <li>PROVIDE (1) ONE TRAP PRIMER VALVE FOR EACH FLOOR DRAIN. CONNECT TO NEAREST COLD WATER<br/>SUPPLY SERVING A FIXTURE. MAINTAIN ACCESSIBILITY TO TRAP PRIMER VALVES.</li> <li>DEDUVIDE CODE CONDUCTION FLOORED DATE: CONTRAP PRIMER VALVES.</li> </ol>  | FD-1: TOILET ROOM FLOO<br>VANDAL-PROOF SC   | DR DRAIN - J<br>REWS.      | JOSAM 30000-5                               | 5A SERIES, N   | NIKALOY AD  | JUSTABLE RO   | UND STRAINER WITH        | ABV. ABOVE F.D. FLOOR DRAIN O.S.&Y. OPEN SCRE<br>B.F.P. BACKFLOW PREVENTOR F.S. FLOOR SINK O.S.D. OPEN SITE<br>B.V. BALANCING VALVE F.M. FORCED MAIN LB. POUNDS  |
| IETRATED, PRIOR TO CORE DRILLING, CHIPPING, AND/OR<br>DCATIONS ARE FREE OF OBSTRUCTIONS. ALL PENETRATIONS<br>L REQUIRE X-RAY, FIELD INSPECTION AND APPROVAL OF A   | <ol> <li>PROVIDE CODE COMPLIANT (ASSE) BACKFLOW PREVENTER WITH SHUT OFF VALVES, UNION, AND<br/>ESCUTCHEON AT EACH EQUIPMENT CONNECTION THAT REQUIRES A POTABLE WATER CONNECTION.</li> <li>CONTRACTOR IS PROHIBITED FROM USING LEAD-BASED SOLDER</li> </ol>  | MV: MIXING VALVE - INS<br>A. WATTS MODEL L  | STALL ON BR<br>LFUSG-B (AS | RAIDED SUPPL<br>SSE 1070)                   | Y LINES TO     | FAUCET. SE  | T VALVE AT ?  | 05°F.                    | BLW.       BELOW       F.F.D.       FUNNEL FLOOR DRAIN       P.S.I.       POUNDS PE         CLG.       CEILING       G.P.H.       GALLONS PER HOUR       P.&T.       PRESSURE         C.O.       CLEANOUT       G.P.M.       GALLONS PER MINUTE       SANITARY |
| . ENGINEER.<br>TY APPROVED UL LISTINGS) AND SEAL ALL PENETRATIONS<br>RE TO DO SO WILL BE AT CONTRACTOR'S RISK AND EXPENSE  | <ol> <li>PURGE NEW OR REPAIR POTABLE WATER SYSTEMS OF DELETERIOUS MATTER AND DISINFECT PRIOR TO<br/>UTILIZATION. THE METHOD TO BE FOLLOWED SHALL BE IN ACCORDANCE WITH THE HEALTH AUTHORITIES<br/>AND/OR BY AWWA C651.</li> </ol>   | TG: TRAP GUARD<br>A. RECTORSEAL "S  | SURESEAL" N                | MODEL SS200                                 | 9V (ASSE 10    | 72 AF GW)   |               |                          | C.W. COLD WATER HTR. HEATER S.S. SERVICE SI<br>°F DEGREES FAHRENHEIT H.B. HOSE BIBB SHR. SHOWER<br>D. DRAIN H.W. HOT WATER SP. SPRINKLER<br>D.F.U. DRAINAGE FIXTURE UNITS H W R HOT WATER RETURN SD. STORM DR  |
| AND EXISTING CONDITIONS OF ALL TRADES, BOTH ABOVE<br>IR DEVIATIONS FROM DRAWINGS MAY BE REQUIRED FOR   | 13. GAS FIRED EQUIPMENT SHALL BE PROVIDED WITH GAS COCKS, UNIONS, DRIP LEGS, SOLENOID VALVES, PRESSURE REGULATORS, AND VENTS. ALL GAS FIRED EQUIPMENT, DEVICES, AND ACCESSORIES SHALL BE U.L., F.M. AND A.G.A./ C.S.A. APPROVED. ALL GAS PIPING SHALL BE WELDED BY A QUALIFY WELDER. ALL GAS  |   |                            |   |                |             |               |                          | D.F.     DRINKING FOUNTAIN     LAV., L.     LAVATORY     T.P.     TRAP PRIME       DN.     DOWN     MECH.     MECHANICAL     TYP.     TYPICAL       E.W.C.     ELECTRIC WATER COOLER     M.S.     MOP SINK     UR.     URINAL                                  |
| PMENT, OR APPARATUS DURING THE EXECUTION OF THIS<br>D TO MATCH ORIGINAL CONDITION AT NO ADDITIONAL COST TO   | GAS PIPE FITTING SHALL COMPLY WITH A.S.M.E. B16.3 CLASS 150 FOR THREAD PIPE AND A.S.T.M. A 234/A 234M FOR WELDED FITTINGS. ALL GAS PIPE SHALL BE PAINTED YELLOW. PAINT SHALL BE LISTED FOR NATURAL GAS PIPING SYSTEM INDOOR USE SUCH AS LATEX OVER ALKYD PRIMER SYSTEM: M.P.I. INT. 5.1Q  |   |                            |   |                |             |               |                          | ELEC.     ELECTRICAL     M.V.     MIXING VIEVE     V.     VENT       ELEV.     ELEVATION     W.C.     WATER CLC       (E)     EXIST(ING)     W.H.A.     WATER HAM       E     EIRE     W/     WITH   |
| RESISTANT ASSEMBLIES/BARRIERS SHALL BE IN COMPLIANCE   | PROVIDE PROTECTIVE YELLOW COATING FOR EXTERIOR PIPING SYSTEM SUCH AS ALKYD SYSTEM: M.P.I.<br>EXT. 5.1D. PROVIDE IDENTIFICATION ON ALL GAS PIPE PER CODE AND INDUSTRY STANDARDS.   |   |                            |   |                |             |               |                          | FLR. FLOOR   |
| D, AND U.L. LISTED. FIRE SAFE ANNULAR SPACE BETWEEN<br>PE) AND NON-COMBUSTIBLE SLEEVE WITH F.M. APPROVED AND<br>RATING EQUAL TO THE BARRIER PENETRATED.<br>G OF FIRE RATED FLOORS AND WALLS SHALL BE IN                | FIRE PROTECTION:  |   |                            |   |                |             |               |                          | THESE ARE STANDARD SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR ON THE CONTRACT DRAV  |
| VEEN DISSIMILAR METALS.  | 2. MODIFY THE EXISTING FIRE PROTECTION SYSTEMS, BRANCHES, RUNOUTS, HEADS, AND APPURTENANCES, AS REQUIRED TO ACCOMMODATE THE NEW LAYOUT, AS INDICATED ON THE ARCHITECTURAL DOCUMENTS, AND RENDER THE AREAS BEING MODIFIED AS "FULLY SPRINKLED" IN COMPLIANCE WITH NFPA-13, AND THE AUTHORITY HAVING JURISDICTION   |   |                            |   |                |             |               |                          | PLUMBING DRAWING LIST<br>P001 PLUMBING COVER SHEET<br>P101 PLUMBING FIRST FLOOR DEMOLITION PLAN  |
| NTACT WITH CONCRETE OR STRUCTURE IN ANY LOCATION.<br>ND SHALL REMOVE TRASH AND DEBRIS FROM SITE AFTER  | 3. MODIFY EXISTING FIRE PROTECTION SYSTEMS, BACK TO THE SOURCE, AS REQUIRED TO PROVIDE THE<br>HYDRAULIC DEMANDS OF THE NEW WORK AND SUPPLY PIPING IN COMPLIANCE WITH NFPA-13, AND THE<br>AUTHORITY HAVING JURISDICTION.   |   |                            |   |                |             |               |                          | P102 PLUMBING FIRST FLOOR NEW WORK PLAN  |
| PROVIDE IN ACCORDANCE WITH INDUSTRY STANDARDS AND<br>PIPING SUPPORTS AND HANGERS SHALL BE IN COMPLIANCE<br>'S FOR COPPER PIPING SHALL BE B-LINE SYSTEMS, INC.<br>PAINTED PIPE HANGERS AND SUPPORTS WITH ZINC PLATED    | 4. MODIFY EXISTING FIRE PROTECTION SYSTEMS AS REQUIRED TO ACCOMMODATE NEW AND EXISTING OBSTRUCTIONS, INCLUDING, BUT NOT LIMITED TO, CEILING ELEVATION CHANGES, PIPING, DUCTWORK, AIR DEVICES, LIGHTING, PROJECTION SCREENS, EQUIPMENT, AND STRUCTURAL MEMBERS.  |   |                            |   |                |             |               |                          |  |
| CLAD, PIPE HANGERS AND SUPPORTS ARE NOT ACCEPTABLE,<br>SUPPORT ALL PIPING AND EQUIPMENT DIRECTLY TO BUILDING<br>PORT FROM PIPING SYSTEM IS ALLOWED OTHER THAN<br>ALL SUPPORT IS SUBJECT TO STRUCTURE ENGINEER'S REVIEW | <ol> <li>COORDINATE WITH THE WORK OF ALL DIVISIONS.</li> <li>OBTAIN AND COMPLY WITH ALL BUILDING OWNER'S FIRE PROTECTION STANDARDS AND INSURANCE<br/>REQUIREMENTS.</li> </ol>   |   |                            |   |                | ~           |               |                          |  |
| JBMITTALS, SHOP DRAWINGS, CALCULATIONS, AND ANY OTHER  | 7. SHOP DRAWING SUBMITTALS SHALL BEAR THE "REVIEW COMMENTS" AND "APPROVAL SEAL" OF THE FIRE MARSHAL HAVING JURISDICTION.  |   |                            |   |                |             |               |                          | THERMAL EXPANSION TANK (ET-1)  |
| W AND APPROVAL BY THE OWNER'S DESIGN TEAM AND/OR THE<br>DMMENCEMENT OF WORK.   | 8. PROVIDE INSTALLATION AND MATERIALS COMPLIANT WITH THE LATEST ADOPTED EDITION(S) OF NFPA AND REQUIREMENTS OF THE LOCAL FIRE MARSHAL. MATERIALS AND FINISHES SHALL EXACTLY MATCH THOSE OF THE EXISTING FINISHED CONDITIONS IN SIMILAR ADJACENT AREAS OR IN ACCORDANCE TO THE OWNER'S DIFFECTION. UNIT FOR NOTED OTHERWISE DEFENSION  |   |                            |   |                |             |               |                          | CHECK VALVE  |
| NGER REQUIRED FOR A NEW OR ACTIVE SYSTEM WITHIN THE<br>ND MATERIAL TO ACHIEVE SUCH ENDS. VISIT THE SITE AND<br>O SUBMISSION OF BIDS. IDENTIFY TO THE ENGINEER<br>CONTRACT DOCUMENTS. AND PROVIDE OPPORTUNITY FOR       | <ol> <li>DO NOT INSTALL PIPING BENEATH AIR HANDLING DEVICES OR THAT INTERFERE WITH ANY TYPE OF<br/>ACCESS PANEL/DOOR. INSTALL PIPING AT LEAST 2-INCHES ABOVE LIGHT FIXTURES TO ALLOW FOR<br/>FUTURE RELOCATION OF LIGHT FIXTURES WITHOUT PIPING REMOVAL (MODIFICATIONS)</li> </ol>  | (REF  | FER TO MEC<br>FOR MORE     | EXHAUST VEI<br>CHANICAL DWO<br>E INFORMATIC | NT<br>GS<br>N) |             |               |                          |  |
| DS. SUBMISSION OF BID CONSTITUTES THE CONTRACTOR'S<br>'HE CONTRACT DOCUMENTS AS AN ADEQUATE DEFINITION OF<br>COST CLAIMS BASED ON INADEQUACY OF CONTRACT<br>DR ACCEPTED.   | 10. INSTALL SPRINKLER HEADS, IN CODE COMPLIANCE, WHERE SPECIFIC HEAD LOCATIONS HAVE BEEN<br>IDENTIFIED BY THE ARCHITECT. NOTIFY ARCHITECT OF SPRINKLER HEAD LOCATIONS THAT ARE<br>NON-COMPLIANT AND/OR DO NOT SATISFY DENSITY COVERAGE REQUIREMENTS, PRIOR TO   |   | DRA                        | AFT HOOD                                    |                |             |               |                          | (TYP.)<br>— STRAINER<br>— CIRCULATING  |
| THESE PLANS, IS BASED ON DOCUMENTS REPRESENTATIVE OF<br>D THE ENGINEER, AND FIELD OBSERVATIONS WHERE MADE<br>HE ENGINEER OF DISCREPANCIES THAT AFFECT THE PROPOSED   | DEVELOPMENT OF SPRINKLER PLANS.<br>11. SPRINKLER HEADS SHALL BE BASE BUILDING STANDARD. WHERE NO BUILDING STANDARD EXISTS,<br>SPRINKLER HEADS SHALL BE VICTAULIC CORP. FULLY CONCEALED, ADJUSTABLE. UNLESS OTHERWISE<br>DIRECTED BY THE OWNER.  |   | A.S.M.E<br>TEMPE<br>PRESSI | E COMBINATIC<br>RATURE AND<br>URE RELIEF V  | N              | 1           |               |                          | PUMP (CP-1)<br>CHECK VALVE<br>(TYP.)<br>BALANCING VALVE  |
| IS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN<br>REGULATIONS, REMEDIATION, AND HAZARDOUS WASTE<br>HALL BE RESPONSIBLE FOR ALL COSTS, PERMITS, FEES, AND   | 1) FINISHED AREAS WITH WHITE FINISH, SHALL HAVE FLAT-WHITE COVER HEAD PLATE.<br>2) FINISHED AREAS WITH OTHER FINISH, SHALL HAVE POLISHED CHROME COVER HEAD PLATE.<br>3) UNFINISHED AREAS SHALL HAVE, UPRIGHT BRASS SPRINKLER HEAD.  |   | EXTE<br>OVEI<br>DRAI       | END TO AND S<br>R SAFE PAN<br>IN VALVE      | SPILL          |             |               |                          | - GWH-1  |
| MENT IDENTIFIED AND WHEN SO DIRECTED BY THE OWNER,   | 12. INSTALL HEADS IN THE "CENTER OF CEILING TILES" IN SMALLER ROOMS AND CENTERED ONE-WAY IN CEILING TILES OF OPEN AREAS. WHEN BUILDING STANDARDS, OR EXISTING CONDITIONS, REQUIRE SPRINKLER HEADS CENTERED IN CEILING TILES THROUGHOUT (IN BOTH DIRECTIONS), THE CONTRACTOR   |   | UNIC                       | DN (TYPICAL) -                              |                |             |               |                          | GAS REGULATOR GAS COCK GAS CUDDIX  |
| T DOCUMENTS.<br>DF EXISTING SYSTEMS WITH NEW WORK AND EXISTING   | SHALL COMPLY, AND LOCATE HEADS WITHIN 1-INCH OF CENTER OF CEILING TILE IN BOTH DIRECTIONS.  |   |                            |   |                |             |               |                          | GAS SUPPLY       DRIP LEG   NOTE:  |
| TION PIPING, EQUIPMENT, FIXTURES, AND APPURTENANCES NO   |   |   |                            | DRA   |                | +           |               |                          | SPILL TO       PROVIDE HEAT TRAP FOR COLD         FLOOR DRAIN       WATER SERVICE PER         MANUFACTURER'S       RECOMMENDATION  |
| UPERABLE SYSTEM. ELIMINATE PROHIBITED SANITARY<br>ENTS. PLUG/CAP PIPE DEAD-ENDS BACK AT THE MAIN/RISER.<br>ESSARY MODIFICATIONS, EXTENSIONS, ADAPTERS, REPAIRS,  |   |   |                            |   |                |             | <u></u>       | WATER HEATER<br>PLATFORM | FLOOR DRAIN  |
| RK THERETO, AS REQUIRED TO MAINTAIN THE OPERATION AND<br>G TO REMAIN ACTIVE.   |   |   |                            | F   |                | 4           |               |                          |  |
| NIEGRITY OF THE BUILDING. REPAIR/REPLACE EXISTING FIRE   |   |   |                            |   |                |             |               |                          |  |
| R DAMAGES TO EXISTING AND/OR NEW CONDITIONS DURING<br>SHALL REPAIR/REPLACE, SIMILAR, TO THE SATISFACTION OF  |   |   |                            |   |                |             |               | 1 GAS                    |  |
|  |   |   |                            |   |                |             |               | SCALE: NC                | <b>小NL</b>   |

| G FIXTURE SCHEDULE |  |
|--------------------|--|
|                    |  |

![](_page_29_Figure_6.jpeg)

![](_page_29_Figure_7.jpeg)

|             | SCHEDULE OF CAPACITIES |                   |                    |           |                |                     |        |        |        |                 |  |  |  |
|-------------|------------------------|-------------------|--------------------|-----------|----------------|---------------------|--------|--------|--------|-----------------|--|--|--|
| W.H. NO.    | STORAGE<br>GALLONS     | G.P.H. R<br>@ 100 | ECOVERY<br>°F RISE | OPEF<br>L | R. WGT.<br>BS. | GAS<br>BTU/PER HOUR |        | MIN EF |        | BASIS OF DESIGN |  |  |  |
| GWH-1       | 55                     |                   | 52                 | 6         | 643            | 60,0                | 00     | 0.62   | 0.5    | 66              | A.O. SMITH CONSERVATIONIST MODEL BT-60 |  |  |
|             |                        |                   |                    |           |                |                     |        |        |        |                 |  |  |  |
| CIRCULATION | GPM                    | T.D.H.            | SYSTEM             | Цр        | DDM            |                     | ELECTR | IC     |        |                 |  |  |  |
| PUMP        | 6.F.M.                 | T.D.H.            | P.S.I.             | п.г.      |                | VOLTS               | PH     | H      | z      |                 | DASIS OF DESIGN                        |  |  |
| CP-1        | 5                      | 6                 | -                  | -         | 3500           | 115                 | 1      | 60     | 30 BEI |                 | BELL & GOSSETT ECOCIRC 19-16           |  |  |

NOTE:
 EXPANSION TANK: AMTROL MODEL ST-5V. (2.1 GALLON)
 4" DRAFT HOOD FLUE FOR WATER HEATER SHALL BE INSTALLED PER MANUFACTURER REQUIREMENTS.

| 7 | 6 | 5 | 4 | 3 | 2 |
|---|---|---|---|---|---|
|   |   |   |   |   |   |

![](_page_29_Figure_12.jpeg)

![](_page_30_Figure_0.jpeg)

| 13 | 12 | 11 | 10 | 9 | 8 |
|----|----|----|----|---|---|

![](_page_30_Figure_8.jpeg)

![](_page_31_Figure_0.jpeg)

| 13 | 12 | 11 | 10 | 9 | 8 |
|----|----|----|----|---|---|

![](_page_31_Figure_11.jpeg)

|  | <ul> <li>THE WORK TO SE DONE SHALL INCLUDE THE FURNISHING OF ALL LEADS. MATERIALS, APPLIANCES, EQUIPMENT TRANSPORTATION, SUPERINTERBORTS AND SERVICES REQUIRED TO CONSTITUTI, INSTALL AND MONIFY COM OPERATION. THE REPORTATION SUPERINTERBORTS AND SERVICES IN REQUIRED TO CONSTITUTI, INSTALL AND MONIFY COM OPERATION. THE REPORTATION SUPERINTERBORTS AND SERVICES IN REQUIRES AND REPORTE AND MARKES. CONSILIL AND MONIFY COM OPERATION. THE REPORTATION SUPERINTERBORTS OF THE APPROXEME ON INSTALLED TO CONSTITUTION. THE CONTRACT, MIDIATE THE APROVAL AND MIDIATE MIDIATES AND MIDIAT</li></ul>   | T, TOOLS,<br>PLETE AND<br>NATE WORK<br>NECESSARY<br>(OF OTHER<br>5.<br>DE AND ALL<br>UITS AND<br>LY<br>JOED AT NO<br>CHANICAL<br>OR SANCAL<br>D, AND SHALL<br>ED IN THE<br>LOF THE<br>NDARDS.<br>SHALL BE<br>DWNER.<br>OR SLABS,<br>SHALL BE<br>DWNER.<br>OR SLABS,<br>SHALL BE<br>DWNER.<br>OR SLABS,<br>SHALL BE<br>NOPERTY OF<br>RCC TO<br>NG SPACE<br>IEER<br>E<br>ROUND<br>DERED BY<br>SINEER DOES<br>ANS,<br>PRECAUTIONS<br>DRK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>SPRECAUTIONS<br>DRK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>NALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>SHALL BE 3/4<br>TED<br>LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>DLANS FOR<br>ACH THREE<br>SYMBOL   | <ol> <li>HORENNES TO THE PARLEDARD MAY BE RUN TOGETHER IN ONE CONDUCT, PROVIDED ALL OXCORDANCE TOTAL THE WATTOMAL LEGATIGAL CODE AND LOCAL ELECTRICAL CODE REDUIL UNBALANCED CURRENT IN THE URTAL DOS TOR SCHEDE THE CAPACITY OF THE WEE, NOME PHASE CIRCUITS SHALL BE CONTINUOUS (SPLICE FREE) FROM TERMINATION TO TERMINATION OF TERMINATION. SPLICES ARE ABSOLUTED IN DECISION TO COMPLEXATION TO TERMINATION TO TERMINATION TO TERMINATION TO TERMINATION. SPLICES ARE ABSOLUTED IN DECISION TO ANGE TABLE MAD STUDY FOR ALL EXISTING PANELS ON ONE OF A MASCETABLI MECHANISM COMPLEXATION TO TERMINATION TO TERMINATINY TO TO TERMINATION TO TERMINATION TO TERMINATION TO TERMIN</li></ol>   | CONNECTIONS ARE IN<br>REMENTS AND THE MAXIMUM<br>RE THAN THREE SINGLE<br>E INSTALLED IN ONE<br>PROVIDE PULLBOXES WHERE<br>OUTLET BOX.<br>TO DETERMINE THE<br>JLD BE EXPOSED DURING<br>TALLED ON THE<br>SRS, BUSWAYS, FUSED AND<br>I UNITS, AUTOMATIC<br>MERS, LOAD CENTERS, AND<br>T SHALL MATCH EXISTING<br>EXISTING EQUIPMENT.<br>PROVIDE NEW TYPED<br>TO REMAIN CIRCUITS. THE<br>CLOCATION SHALL INDICATE<br>ACTOR SHALL INSURE THAT<br>ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>SENSURE EFFICIENT AND<br>DI BE CONSTRUED AS FINAL<br>OF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>TE ENONSTRUED AS FINAL<br>OF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>TE CONSTRUED AS FINAL<br>OF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>TE CONSTRUED AS FINAL<br>OF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>EDURING CONSTRUCTION. THE<br>DWPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN | $ \begin{array}{c}                                     $  | CELLING OR WALL LED OR FLUORESCENT FIXTURE<br>CELLING OR WALL LED OR FLUORESCENT FIXTURE ON EMERGENCY CIRCUIT<br>CELLING OR WALL MOUNTED EXIT LIGHT ON EMERGENCY CIRCUIT - ARROWS<br>INDICATE DRECTION<br>LETTER NEXT TO LIGHT FIXTURE SYMBOL INDICATES TYPE OF LIGHTING FIXTURE<br>EMERGENCY LIGHT WITH 90 MINUTE BACKUP BATTERY<br>SINGLE POLE FLUGH TUMBLER SWITCH<br>LOW VOLTAGE WALL SWITCH<br>WALL MOUNTED SWITCH WITH INTEGRAL OCCUPANCY SENSOR<br>OCCUPANCY SENSOR<br>LOW VOLTAGE DIMINER SWITCH - PROVIDE DIMINER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>WALL MOUNT | 3R       NEM/         AFF       ABOV         A       AMP         AWG       AMEI         BAS       BUILL         CB       CIRC         C       CONI         CD OR od       CANE         D       DEDI         EX. OR E       EXIST         EC       EMPT         EPO       EMET         FAAP       FIRE         FACP       FIRE         FACP       FIRE         FAS       FUSE         GAP       GRAT         GFI       GROT         HP       HOR         IG       ISOL         JB       JUNC         KVA       KILOT         KCM       KILOT         MH       MOUI         MLO       MAIN         MH       MOUI         MLO       MAIN         N       NEW         NAC       NOTI         NEC       NATU         NFSS       NOM         PNL       PANE         P       POLE         R       RELC         KM       ROOI | MA 3R RATED DEVICE<br>DVE FINISHED FLOOR<br>P<br>ERICAN WIRE GAUGE<br>LDING AUTOMATION SYSTEM<br>CUIT BREAKER<br>NDUIT<br>VDUIT<br>VDELA<br>JCATED<br>STING<br>TYY CONDUIT<br>ERGENCY POWER OFF<br>E ALARM<br>E ALARM<br>E ALARM ANNUNCIATOR PANEL<br>E ALARM CONTROL PANEL<br>E ALARM CONTROL PANEL<br>E ALARM TERMINAL CABINET<br>ED SAFETY SWITCH<br>VPHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>SEEPOWER<br>ATED GROUND<br>CTION BOX<br>VOLT AMFERE<br>D CIRCULAR MILS<br>VWATT<br>V CIRCUIT BREAKER<br>JNTING HEIGHT<br>VLUGS ONLY<br>/<br>IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>IFUSED SAFETY SWITCH<br>EL<br>SONAL COMPUTER<br>SE<br>E<br>D CATED<br>ETTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>THERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS. |
|--|--|---|--|--|---|--|---|--|
| 3.<br>   | <ol> <li>CENERAL CONDITIONS</li> <li>CERERAL CONDITIONS</li> <li>A ALL SEPERAL CONDITIONS</li> <li>OPERAL CONDITIONS</li> <li>OPERAL CONDITIONS</li> <li>OPERAL CONDITIONS (SIMULE EXPERIPORTED IN STRICT ACCORDUNCE WITH THE NATIONAL ELECTRICAL COD<br/>OUTLETS, LOCATIONS OF WITCHES INVED IN SUBJECT ACCORDUCT AND OTHER WORK, ALL TERMS NOT SECHED<br/>WEITIONED HEREIN, WHICH ARE NOESSAWY TO MAKE A COMPLETE WORKING INSTALLATION, SIMULE EXPLORED<br/>MEDITIONED HEREIN, WHICH ARE NOESSAWY TO MAKE A COMPLETE WORKING INSTALLATION, SIMULE EXPLORED<br/>MEDITIONED HEREIN, WHICH ARE NOESSAWY TO MAKE A COMPLETE WORKING INSTALLATION, SIMULE EXPLORED<br/>MEDITIONED HEREIN, WHICH ARE NOESSAWY TO MAKE A COMPLETE WORKING INSTALLATION, SIMULE EXPLORED<br/>MEDITIONED HEREIN, WHICH ARE NOESSAWY TO MAKE A COMPLETE WORKING INSTALLATION, SIMULE EXPLORED<br/>MEDITIONED HEREIN, WHICH ARE NOESSAWY TO MAKE A COMPLETE WORKING INSTALLATION, SIMULE EXPLORED<br/>COURSE OF INSTALLATION OF TEST SHALL ENDER WITH ALL ASPECTS OF THOSE DESIGN. ANTERNAME<br/>PREVENTION OF INSTALLATION OF TEST SHALL ENDER WITH ALL ASPECTS OF THOSE DESIGN.<br/>ARCHITECT AND EXPLORED TO THE APPROVAL COMPLEX AND REQULATIONS AS INFORMED TO BE REAL<br/>ALL ORDER TO THE APPROVAL COMPLEX AND REQULATIONS AS INFORMED TO PREVENTION<br/>PREVENTIONED IN ACCORDANCE WITH ALL BULLING ROLES AND REQULATIONS AS INFORMED BY<br/>INTERNAL DULITED TREE STOP OF INCOMPOLITIES AND REQULATIONS AS INFORMED BY<br/>THE OUTRIES OF APPROVAL SHALL EN INTERVICUES. THE STALLING AND REQULATIONS AS INFORMED BY<br/>THE OUTRIES OF APPROVAL SHALL BEINGT TO REPORT TO RESOLUTION TO AND RECOVER THE PREVENTION<br/>INSTALL ALL LIED FIRE STOP OF INCOMPOLITIES BEFORE INSTALLING CONDUCTORS FROM PREVENTION<br/>INSTALL ALL LIED FIRE STOP OF INCOMPOLITIES AND REQULATIONS AS INFORMED AND RECOVER THE<br/>THE THE OWNER INTO THE INSTALL DE INTERVICUES THE MEDITATION PREVENTION<br/>INSTALL ALL DE THE RESTOP OF INCOMPOLITIES AND REQULATIONS AS INFORMED AND RECOVER THE<br/>PREVENTION AND AND REPORT TO THE APPROVAL AND AND AND AND RECOVER THE AND AND<br/>INSTALL ALL DE THE RESTOP OF INC</li></ol>             | 5.<br>DE AND ALL<br>UITS AND<br>LY<br>JDED AT NO<br>CHANICAL<br>OR SLABS,<br>BARRIER<br>OR SLABS,<br>SHALL BE<br>DWNER.<br>OR SLABS,<br>BARRIER<br>OR OPERTY OF<br>ACE TO<br>T.<br>NG SPACE<br>EER<br>E<br>ROUND<br>DERED BY<br>SINEER DOES<br>ANS,<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>SHALL BE 3/4<br>TED<br>COT THE<br>COT THE<br>SYMBOL<br>SYMBOL   | <ul> <li>E. CONDUCTIONS SHALL BE CONTINUOUS (SPLICE IN READILY ACCESSIBLE PULL JUNCTION OF<br/>SPLICES ARE ABSOLUTELY NECESSARY; SPLICE IN READILY ACCESSIBLE PULL JUNCTION OF<br/>MODIFICATIONS TO EXISTING PANELBOARDS</li> <li>A. CONTRACTOR SHALL PROVIDE AN ARC: FLASH LABEL AND STUDY FOR ALL EXISTING PANELS I,<br/>ARC: FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COL<br/>WORK ON ON REAR ELECTRICAL COUMPENT, ARC HAZAD LABELS SHALL BE FIEL DW<br/>SWITCHGEAR, SWITCHES, BUSINAY PLUG-IN SWITCHES OR CIRCUIT RERAKERS, TRANSFOR<br/>PANELBOARD ASSEMUCTING MEANS, INCIDES FOR DETENTION<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES OR CIRCUIT RERAKERS, TRANSFOR<br/>PANELBOARD ASSEMULSIES, REFER TO THE SAME AST NATO FE XISTING EOUIPMENT.<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES OR REQUIRED. NEW EOUIPMENT<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES OR REQUIRED. NEW EOUIPMENT<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES OR REQUIRED. NEW EOUIPMENT.<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES OR REQUIRED. NEW EOUIPMENT.<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES AS REQUIRED. NEW EOUIPMENT.<br/>TRANSFER SWITCHES, BUSINAY PLUG-IN SWITCHES AS REQUIRED. NEW EOUIPMENT.<br/>TRANSFER SWITCHES, BUSINAY PLUG-INS SWITCHES AS A DIA TO EXISTING<br/>DIRECTORY SHALL INDICATE DEVICE SENTED AND SPECIFIC LOCATION OF DEVICES).<br/>SPECIFIC DOR SHALL NORAR EOUIPING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br/>WRITER THE PENNISSION FROM THE BUILDING OWER PRIVIDES SIGN AT ISS 10. THE CONTR<br/>COMPLIANCE WITH NEC 408.4 IS MET CLEARLY ON ALL PANELBOARD DIRECTORIES.</li> <li>JUERS WITH<br/>A COORTINATE ALL WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br/>WRITERTO PENNISSION FROM THE MULDING OWER PRIVID TO SHUTTING DOWN POWER TO A<br/>THE CONTRACTOR SHALL SO PROVIDE NOTE TO AUL TORAUTION FORM TO ALL<br/>CONTRACTOR SHALL ALSO PROVIDE NOTE CT ALL OTHER TRADES OF ALL SCHEDULES.</li> <li>JUENG THE DEVERSION THE DERAKING STRUCE DERAGONE, FALL VERTING<br/>A REPORTED THAN CONTRACTOR SHALL BE DESCRIPTION THATE EXISTING THE SUME<br/>SECTION OF SUBMITTING INSECRING STRUCE SCO</li></ul> | PROVIDE PULLBOXES WHERE<br>OUTLET BOX.<br>TO DETERMINE THE<br>JLD BE EXPOSED DURING<br>TALLED ON THE<br>ERS, BUSWAYS, FUSED AND<br>VUNITS, AUTOMATIC<br>MERS, LOAD CENTERS, AND<br>T SHALL MATCH EXISTING<br>EXISTING EQUIPMENT.<br>PROVIDE NEW TYPED<br>TO REMAIN CIRCUITS. THE<br>TC LOCATION SHALL INDICATE<br>ACTOR SHALL INSURE THAT<br>INTERRUPTIONS OF POWER.<br>ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>EXING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>DT BE CONSTRUED AS FINAL<br>DF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>DE SONSIBILITY FOR ANY<br>ETENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>EDURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | $ \begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ $  | CELLING OR WALL FLUORESCENT FIXTURE ON EMERGENCY CIRCUIT<br>CELLING OR WALL FLUORESCENT FIXTURE ON EMERGENCY CIRCUIT - ARROWS<br>INDICATE DARCTION<br>LETTER NEXT TO LIGHT FIXTURE SYMBOL INDICATES TYPE OF LIGHTING FIXTURE<br>EMERGENCY LIGHT WITH 90 MINUTE BACKUP BATTERY<br>SINGLE POLE FLUSH TUMBLER SWITCH<br>THREE OR FOUR WAY FLUSH TUMBLER SWITCH<br>LOW VOLTAGE WALL SWITCH<br>WALL MOUNTED SWITCH WITH INTEGRAL OCCUPANCY SENSOR<br>OCCUPANCY SENSOR<br>LOW VOLTAGE DIMMER SWITCH - PROVIDE DIMMER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA'N VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CELLING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT TANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT TANERED ED IN CELLING OR WALL - HOMERUNS 34" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SPRAATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/ISTARTER DISCONNECT S   | AWGAMEBASBUILICBCIRCCCONICD OR cdCANDDDEDIEX. OR EEXISECEMPFAFIREFAAPFIREFACPFIREFACPFIREFSSFUSEGAPGRADGFIGRODHPHORSIGISOLJBJUNCKVAKILOKWKILOMCBMAINMHMOUMLOMAINNNEWNACNOTINECNATIONFSSNON-PNLPANEPCPERSØ,PHPHASPPOLERRELCKM.ROOTYP.TYPICUONUNEVVOLTWWATXFMRTRANNOTE:THESE ARE STANDAREON THE CONTRACT DEFELECTR  | ERICAN WIRE GAUGE<br>LDING AUTOMATION SYSTEM<br>CUIT BREAKER<br>NDUIT<br>NDELA<br>JICATED<br>STING<br>PTY CONDUIT<br>ERGENCY POWER OFF<br>E ALARM<br>E ALARM ANNUNCIATOR PANEL<br>E ALARM CONTROL PANEL<br>E ALARM CONTROL PANEL<br>E ALARM TERMINAL CABINET<br>SED SAFETY SWITCH<br>APHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>SEPOWER<br>LATED GROUND<br>ICTION BOX<br>JVOLT AMPERE<br>J CIRCULAR MILS<br>JWATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LUGS ONLY<br>V<br>IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>I-FUSED SAFETY SWITCH<br>EL<br>SONAL COMPUTER<br>SE<br>E<br>JCACHE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>THERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.  |
| <ul> <li>J.</li> &lt;</ul> | <ul> <li>A. LI ELECTRICAL WORK SHALL BE PERFORMED IN STRUCT ACCORDANCE WITH THE INTERNAL ELECTRICAL CODE ON OTHER LOCAL CODES MAY DIFFORMED AWAYD JURGEDOTEON.</li> <li>DORAWINSS, WHICH CONSTITUTE A PART OF THIS CONTRACT, INCALE THE GENERAL ARRANGEEDIN OF GROUP UNLESS CONTROLSES APARLED AND CONSTITUTE A PART OF THIS CONTRACTOR TO EXAMINE THE ARCHITECTURAL, STRUCTURAL, LINE MAY DIFFERSIONS FROM FORCE.</li> <li>TI SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO EXAMINE THE ARCHITECTURAL, STRUCTURAL, LINE WHICH ALL BENERAL STRUCTURAL LINE AND CONSTITUTE A PART OF THIS CONTRACTOR TO EXAMINE THE ARCHITECTURAL, STRUCTURAL, LINE CONTRACTOR TO EXAMINE TO ARCHITECTURAL STRUCTURAL LINE AND CONTRACTOR TO THE SENSE AND CONTRACTOR TO BE RELEDSE.</li> <li>B. LI ELECTRICAL MATERIAS, SHALL BE INER, XICRET MHERE SPECTURE FOUNDENT OF REDURENT DAMAGES OCURSE OF INTERLATION ADD OR TIST SHALL BE INCLUE.</li> <li>B. LI ELECTRICAL MATERIAS, SHALLE BE INER VICE ARCHITECTURAL BURK AND CONSINGE WITH BEILDING CONTRACTOR THE ARPROVAL OF THE OWNER ON THAL BE IN ACCOMMANCE WITH BEILDING CONTRACTOR THAN AND CONSINGUAL THAN AND ARCHITES AND CONSINUAL AND AND CONSINUAL THAN AND ARCHITES AND CONSINUAL AND AND AND AND AND AND AND AND AND AND</li></ul>  | DE AND ALL<br>UITS AND<br>LY<br>JDED AT NO<br>CHANICAL<br>(ORK.<br>D, AND SHALL<br>ED IN THE<br>L OF THE<br>NDARDS.<br>SHALL BE<br>OR SLABS,<br>BARRIER<br>PROPERTY OF<br>ACE TO<br>ACE TO<br>OR SLABS,<br>BARRIER<br>PROPERTY OF<br>ACE TO<br>ACE TO<br>CALL<br>CODE AND<br>ANS,<br>PRECAUTIONS<br>ORK IN<br>VEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>SANS,<br>PRECAUTIONS<br>ORK IN<br>VEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>SANS,<br>ACH THREE<br>SYMBOL  | <ul> <li>A. CONTRACTOR SHALL PROUDE AN ARCFLASH LABEL AND STUDY FOR ALL EXISTING PARELS.<br/>ARCFLASH HAZARD DISTANCE AND THE INCIDENT ENRREY TO WHICH PERSONNEL CO<br/>WORK ON OR NEAR ELECTRICAL EQUIPMENT, ARC HAZARD LABELS SHALLS FIELD IN<br/>SMITCHGAR, SMITCHGOARDS, DISTIBUTION PARELBOARDS. MOTOR CONTROL CENT<br/>NOLFUSED SUBJECTIVE (INCIDENCE) AND THE SOLOSED CONTROLLERS, POWER DISTIBUTION<br/>TRANSFERS WITCHGOARDS, DISTIBUTION PARELBOARDS. MOTOR CONTROL CENTROL<br/>PARELBOARD ASSEMBLIES. REPER TO THE ARC-FLASH NOTES FOR DETAILS.</li> <li>PROWIE NEW ORCOLD REAKERS AND/OR VISED SWITCHS AS REQUIRES. INVERSE<br/>INTERVIEW FAITING OF COMMENT SHALL BE THE SMAR ASTATUT OF EXISTING EQUIPMENT.<br/>PARELBOARD DIRECTORY TO REFLECT CHARGES AMORE TO PARELBOARD AND THE EXISTING<br/>DIRECTORY SHALL INDREAMES AND/ORCE AND SYNCHICS OF THAT OF PARELBOARD AND THE EXISTING<br/>PARELBOARD DIRECTORY TO REFLECT CHARGES MADE TO PARELBOARD AND THE EXISTING<br/>PARELBOARD DIRECTORY TO REFLECT CHARGES MADE TO PARELBOARD AND THE EXISTING<br/>PARELBOARD DIRECTORY TO REFLECT CHARGES MADE TO PARELBOARD DIRECTORIES.</li> <li>INTERRUPTION OF ELECTRICAL POWER</li> <li>A. COORDINATE ALL WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br/>WRITTEN PERMISSION FROM THE BUILDING OWNER PRIOR TO SHALL THAT DEVEKSING<br/>ACCOUNTRACTOR SHALL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDLE<br/>STEVIST</li> <li>A. PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXISTIN<br/>ARCHIFECT AND/OR ENGINEER MAD/VACE OF ANY CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOWN ON IN THE DRAWING FROM BEING PERCIPACING. ELECTRICAL USE SHALL WOULD<br/>STATL OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR FTHE RESPONSIBILITY TO<br/>CONFINES OF EXISTING CONDITIONS.</li>     OURING THE ON FURCE TO FILL ON THE DRAWINGS FOR EXIST MOTOR ON THE CREPTANCE. DEVENCE<br/>STATL OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO<br/>CONFINES OF EXISTING CONTRACTOR SHALL BE RESPONSIBIL FOR , AND SHALL INCUR FINANCIAL<br/>EDWIDES OF THE OR FLOCACE SHALL BE RESPONSIBILE</ul>                       | TO DETERMINE THE<br>JLD BE EXPOSED DURING<br>TALLED ON THE<br>ERS, BUSWAYS, FUSED AND<br>VUNITS, AUTOMATIC<br>MERS, LOAD CENTERS, AND<br>T SHALL MATCH EXISTING<br>EXISTING EQUIPMENT.<br>PROVIDE NEW TYPED<br>TO REMAIN CIRCUITS. THE<br>FIC LOCATION SHALL INDICATE<br>ACTOR SHALL INSURE THAT<br>ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>DISTALL DESIGN WITHIN THE<br>ESPONSIBILITY FOR ANY<br>E TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>E DURING CONSTRUCTION. THE<br>DWPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>FIXTURES.<br>FIXTURES.<br>FIXTURES.<br>FIXTURES.<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $ \begin{array}{c}                                     $  | C EELING OR WALL MOUNTED EXIT LIGHT ON EMERGENCY CIRCUIT - ARROWS<br>INDICATE DIRECTION<br>LETTER NEXT TO LIGHT FIXTURE SYMBOL INDICATES TYPE OF LIGHTING FIXTURE<br>EMERGENCY LIGHT WITH 90 MINUTE BACKUP BATTERY<br>SINGLE POLE FLUSH TUMBLER SWITCH<br>THREE OR FOUR WAY FLUSH TUMBLER SWITCH<br>LOW VOLTAGE WALL SWITCH<br>WALL MOUNTED SWITCH WITH INTEGRAL OCCUPANCY SENSOR<br>OCCUPANCY SENSOR<br>LOW VOLTAGE DIMMER SWITCH - PROVIDE DIMMER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE - NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA' VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES SAMEL DESIGNATION<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES SAMEL DESIGNATION<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4° EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS ILE 3HIZAWG<br>CONDUCTORS       | CB CIRC<br>C CONI<br>CD OR cd CANE<br>D DEDI<br>EX. OR E EXIST<br>EC EMPT<br>EPO EMER<br>FA FIRE<br>FAAP FIRE<br>FACP FIRE<br>FACP FIRE<br>FACP FIRE<br>FSS FUSE<br>GAP GRAF<br>GFI GROU<br>HP HORS<br>IG ISOL<br>JB JUNO<br>KVA KILO<br>KVA KILO<br>KVA KILO<br>KVA KILO<br>KVA KILO<br>MCB MAIN<br>MH MOU<br>MLO MAIN<br>N NEW<br>NAC NOTI<br>NEC NATIO<br>NEC NATIO<br>NFSS NON-<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELC<br>EX. RECE<br>RM. ROOU<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEAT<br>XFMR TRAM<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE   | CUIT BREAKEN<br>NDUIT<br>NDUIT<br>NDELA<br>DICATED<br>STING<br>PTY CONDUIT<br>ERGENCY POWER OFF<br>E ALARM<br>E ALARM ANNUNCIATOR PANEL<br>E ALARM CONTROL PANEL<br>E ALARM TERMINAL CABINET<br>SED SAFETY SWITCH<br>NPHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>SEPOWER<br>LATED GROUND<br>ICTION BOX<br>VOLT AMPERE<br>D CIRCULAR MILS<br>WATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LIGS ONLY<br>V<br>IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>IFUSED SAFETY SWITCH<br>EL<br>SONAL COMPUTER<br>SE<br>E<br>COCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>ITHERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.  |
| <ul> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10</li> <li>11</li> </ul>   | <ul> <li>DUTLETS, LOCATIONS OF SWITCHES PARE BOARDS, CONDUITAD OTHER WORK, ALL TENS MOTS PEOFENCIEN, BEING TORKINGS, DESCRIPTIONS AND REALTIONS SINCE THE CONTINUE TOR LINCOME.</li> <li>TIRDENG DEVENTION OF THE CONTINUESTOR DE SAMIRE THE ARCHITECTURAL. STITUCTURAL BE INCL. PRIVINGEND SERVICE CONTRACTOR DE SAMIRE THE ARCHITECTURAL STITUCTURAL BE INCL. BENGING SWITCH SINCE SHOULD SERVICE AND RESCINCE STITUCTURAL BE INCL. STITUCTURAL BEING DEVENTION SHOULD SHOULD</li></ul>   | LY<br>JDED AT NO<br>CHANICAL<br>/ORK.<br>D, AND SHALL<br>ED IN THE<br>L OF THE<br>NDARDS.<br>SHALL BE<br>DWNER.<br>OR SLABS,<br>BARRIER<br>PROPERTY OF<br>CCE TO<br>TO<br>GS SPACE<br>IEER<br>E<br>ROUND<br>DERED BY<br>GINEER DOES<br>ANS, 27<br>RECAUTIONS<br>DRK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND<br>SHALL BE 3/4<br>DTED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE  | <ul> <li>WORK ON OR NEAR ELECTRICAL EQUIPMENT. ARC HAZARO LABELS SHALL BE FIELD INS<br/>SWITCHEGARS, SWITCHBOARDS, DISINGUITON PAUEDS OR CIRCUIT BRAKERS, TRANSPO<br/>PANELBOARD ASSEMBLIES, REFER TO THE ARC-FLASH NOTRES FOR DETAILS.</li> <li>PROUDE NEW CIRCUIT BRAKERS AND/OR FUSES SWITCHES AS REQUIRED. NEW EQUIPMENT.<br/>INSTALLED EQUIPMENT AND SHALL BE OF THE SAME MANUFACTURER. AND TYPE AS SIMLAR<br/>INTERPIT PATINO OF EQUIPMENT SHALL BE THE SAME MANUFACTURES AND TYPE AS SIMLAR<br/>DIRECTORY SHALL INDICATE DEVICE SERVED AND SPECIFIC LOCATION OF DEVICES). SPECI<br/>DIRECTORY SHALL INDICATE DEVICE SERVED AND SPECIFIC LOCATION OF DEVICES). SPECI<br/>COMPLIANCE WITH NEC 408 4 IS MET CLEARLY ON ALL PARELBOARD DIRECTORIES.</li> <li>INTERRUPTION OF ELECTRICAL POWER</li> <li>COEDENTO S JULIALING WITH NEC 408 4 IS MET CLEARLY ON ALL PARELBOARD DIRECTORIES.</li> <li>SITEVIST</li> <li>A PRODO SUBMITTING HIS BID, VIST THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXISTING<br/>ARCHITECY FAMIL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDULED.</li> <li>SITEVIST</li> <li>A PROTO SUBMITTING HIS BID, VIST THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXISTIN<br/>ARCHITECT AND/OR ENGINEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOUN ON THE DURING WRER PRIOR TO SHUTTING DOWN POWER TO A<br/>UNIT OF CONSTRUCTION WILL NOT RELEVE THE CONTRACTOR OF THE RESPONSIBILITY TO<br/>COMPRES OF EXISTING CONDITIONS.</li> <li>GUARANTEE</li> <li>A PROTO SUBMITTING HIS BID, VIST THE SITE AND FAMILARIZE YOURSELF WITH ALL EXISTIN<br/>ARCHITECT AND/OR ENGINEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOUN ON THE DAWINGS FROM END PERFORMED. FAILURE TO SURVEY TO<br/>CONTRACTOR SHOUND ON THE DAWINGS FROM END PERFORMED. FAILONG TIN NOTALLE<br/>UNDRY TO CONSTRUCT OF MARKEN THE CONTRACT IN PROPER WICH<br/>WITHOUT CHARGE, REPLACE ANY WORK OR MATERNALS WHICH DEVELOP DEFECTS, EXCEPT<br/>TEAR, WITHIN ONE YEAR FROM THE DATE OF INNAL ACCEPTANCE. BENEFICIAL USES SHALL NO<br/>AND CONSTRATE OPERFARMATUS. SECOND SHOULD SOLING THE SATISFACTIO</li></ul>   | TALLED ON THE<br>ERS, BUSWAYS, FUSED AND<br>I UNITS, AUTOMATIC<br>MERS, LOAD CENTERS, AND<br>T SHALL MATCH EXISTING<br>EXISTING EQUIPMENT.<br>PROVIDE NEW TYPED<br>TO REMAIN CIRCUITS. THE<br>FIC LOCATION SHALL INDICATE<br>ACTOR SHALL INSURE THAT<br>ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>C SHOP DRAWINGS, REVISIONS<br>E DURING CONSTRUCTION. THE<br>DWPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | S = S = S $S = S$   | EMERGENCY LIGHT WITH 90 MINUTE BACKUP BATTERY<br>SINGLE POLE FLUSH TUMBLER SWITCH<br>THREE OR FOUR WAY FLUSH TUMBLER SWITCH<br>LOW VOLTAGE WALL SWITCH<br>WALL MOUNTED SWITCH WITH INTEGRAL OCCUPANCY SENSOR<br>OCCUPANCY SENSOR<br>LOW VOLTAGE DIMER SWITCH - PROVIDE DIMMER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 34" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH   | D DEDI<br>EX. OR E EXIST<br>EC EMPT<br>EPO EMER<br>FA FIRE<br>FAAP FIRE<br>FACP FIRE<br>FACP FIRE<br>FSS FUSE<br>GAP GRAF<br>GFI GROU<br>HP HORS<br>IG ISOL<br>JB JUNO<br>KVA KILOU<br>KVA KILOU<br>KVA KILOU<br>KVA KILOU<br>KVA KILOU<br>MCB MAIN<br>MH MOU<br>MLO MAIN<br>N NEW<br>NAC NOTI<br>NEC NATIU<br>NFSS NON-<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELO<br>EX. RECE<br>Ø,PH PHAS<br>P POLE<br>R RELO<br>EX. RECE<br>RM. ROO<br>TYP. TYPU<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEAT<br>X DEMO<br>XFMR TRAF  | DICATED<br>STING<br>PTY CONDUIT<br>ERGENCY POWER OFF<br>E ALARM<br>E ALARM ANNUNCIATOR PANEL<br>E ALARM CONTROL PANEL<br>E ALARM TERMINAL CABINET<br>SED SAFETY SWITCH<br>APHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>RSEPOWER<br>LATED GROUND<br>ICTION BOX<br>VOLT AMPERE<br>D CIRCULAR MILS<br>WATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LUGS ONLY<br>V<br>IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>I-FUSED SAFETY SWITCH<br>EL<br>SONAL COMPUTER<br>SE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>TI<br>ITHERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>AWINGS.   |
| <ul> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10</li> <li>11</li> </ul>   | <ul> <li>AND PLIMBING DRAWINGS TO FAMILIARIZE HINSEL? WITH ALL ASPECTS OF THOSE DESIGNE AFFECTIVE HIS WELE CERCIA. CONTRACTORS IS RESPONSIBLE TO COORDINATE WITH ALL OTHER TABLES.</li> <li>ALL ELECTRICAL MATERIALS SHALL BE NEW, EXCEPT WHERE SPECIFICALLY NOTED AS EXSTING TO BE REQUE<br/>BE LISTED BY THE UNDERWRITERS'L BLOORD TORING. TO HERE ALCED IN A MANERY MEETING THE APPROVAL<br/>ARCHTECT AND ENDINEER. WHERE APPLICABLE. ALL COMPARTS TAKLE BE NEW TO COORDINATE WITH HEM STA<br/>ARCHTECT AND ENDINEER. WHERE APPLICABLE. ALL COMPARTS TAKLE BAR DRAWER MEETING. THE APPROVAL<br/>ARCHTECT AND ENDINEER. WHERE APPLICABLE. ALL COMPARTS TAKLE BAR DRAWER AND TO THE DURING THE BAR DRAWER MEETING. THE BUILDING C<br/>F. ALL MORK SHALL BE INSTALLED IN A NEXT AND WORKMANICE MANNER.</li> <li>WHERE CONDUITS. MIRROWS WITH ALL BUILDING OULS BAR DREGULATIONS ARE PROVIDED BY THE BUILDING<br/>C. WHERE CONDUITS. MIRROWS AND OTHER BELETTICAL REQUEWYS FMASS THROUGH PIRE FAITED PARTITIONS<br/>MISTALL ALL LISTED FIRE STOP OF ROCKWOOL PIERE OF SINCOV FOMM SEAANT TO THE BUILDING C<br/>F. ALL MORK SHALL BE INSTALLED IN A NEXT AND WORKMANICE MANNER.</li> <li>WHENE CONDUITS ON FORMAN AND THE BUILDING CONDUCTOR STRUCTURE SOUR<br/>EQUIPMENT TERMINATION.</li> <li>ALL CONCENTRACION SINCE AND ECONDUIT OR CONDUCTORS FROM POWER SOUR<br/>EQUIPMENT TERMINATION.</li> <li>XARY SLEED FOR STRUCTONS, IN ADDITION REVIEW SLAP DENETRATIONS WITH STRUCTURAL ENDING<br/>HERTARED BY THE CONTRACTOR IN ORDER TO CORE DURING TO THE SITURTING STRUCTURAL ENDING<br/>HERTARED BY THE CONTRACTOR NO RORE TO CORE DURING THE OLIVINAL MURTIMENT. THE<br/>EQUIPMENT TERMINATION.</li> <li>XARY SLEID AND ADDITIONS ON DEVENTION ON CONTRACTOR SHALL MARKER STRUCTURAL ENDING<br/>HERTARED BY THE CONTRACTOR NO RORE TO CONTRACTOR SHALL MARKER THE SITURTING STRUCTURAL ENDING<br/>HERTARED BY THE CONTRACTOR SHALL BE CONTRACTOR TO AND AND ADDITIONAL RECOURDENTS TO CONTRACTOR SHALL MARKER AND STRUCTURAL ENDING<br/>HERTARED BY THE CONTRACTOR SHALL BE THONE OND TO AND AND ADDITIONAL RECOURDENT STRUCTURAL ENDING<br/>HERTAR</li></ul>  | VORK.<br>D, AND SHALL<br>ED IN THE<br>L OF THE<br>NDARDS.<br>SHALL BE<br>DWNER.<br>OR SLABS,<br>BARRIER<br>PROPERTY OF<br>ACE TO<br>TO<br>ACE TO<br>TO<br>SPACE<br>E<br>ROUND<br>DERED BY<br>GINEER DOES<br>ANS,<br>PRECAUTIONS<br>DRK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND<br>N. ALL WIRE<br>TXIBLE CABLE,<br>L CODE AND<br>N. ALL WIRE<br>TXIBLE CABLE,<br>L CODE AND<br>SHALL BE 3/4<br>TED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>ZED AND<br>SYMBOL  | <ul> <li>PANELBOARD ASSEMBLIES REFER TO THE ARCITLASH NOTES FOR DETAILS.</li> <li>PROVIDE NEW CRUIT BREAKERS AND/OR FUSED SWITCHES AS REQUIRED. NEW COUPNEN<br/>INSTALLED EQUIPMENT AND SHALL BE OF THE SAME AS THAT OF EXISTING EQUIPMENT.<br/>PANELBOARD DIRECTORY TO REFLECT CHANGES MADE AS THAT OF EXISTING EQUIPMENT.<br/>PANELBOARD DIRECTORY TO REFLECT CHANGES MADE FOR PANELBOARD AND THE EXISTING<br/>DIRECTORY SHALL INDICATE DEVICE SERVED AND SPECIFIC LOCATION OF DEVICES, SPECI<br/>ROOM NUMBER AND TYPE OF ROOM (I.e. RECEPTACLES) OFFICE SIST, SIS 516). THE CONTR<br/>COMPLANCE WITH NEC 408.4 IS NET CLEARLY ON ALL PANELBOARD DIRECTORIES.</li> <li>INTERRUPTION OF ELECTRICAL POWER</li> <li>CORDINATE ALL WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br/>WRITTER PERMISSION FROM THE BUILDING OWISE PROVED TO SHUTTING DOWN POWER TO A<br/>THE CONTRACTOR SHALL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDULED.</li> <li>SITE VISIT</li> <li>PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXIST<br/>THAT OF CONSTRUCTION WILL NOT RELEVE THE CONTRACT OF THE RESPONSIBILITY TO<br/>COMPINES OF ENSISTING CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOWN ON THE DRAWINGS FROM DEING PERFORMED. FAILURE TO SURVEY TI<br/>START OF CONSTRUCTION WILL NOT RELEVE THE CONTRACT IN PROPER WOR<br/>WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT<br/>TERR, WITHIN ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AD COUPINES OF EXISTING CONDITION THAT SETS THAT WOULD P<br/>ROPER FUNCTIONIN.</li> <li>DERNORM THE ORY EVAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AND EQUIPMENT, APPAARTUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br/>PROPER FUNCTIONIN.</li> <li>DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE BATISFACTION OF THE<br/>COMPINES ON OR RESULTING FROM DEFECTION FUNCTION OF THE<br/>COMPINES ON RESULTING STORE START AND EAULINE CONTRACT IN PROPER<br/>AND COUPINENTS.</li> <li>DEMOLITION NOTES</li> <li>A MANTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPR</li></ul> | T SHALL MATCH EXISTING<br>EXISTING EQUIPMENT.<br>PROVIDE NEW TYPED<br>TO REMAIN CIRCUITS. THE<br>TIC LOCATION SHALL INDICATE<br>ACTOR SHALL INSURE THAT<br>ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>RESPONSIBILITY FOR ANY<br>E TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>E DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>FALLES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | $ \frac{3}{S}  \frac{4}{S}  SL  SL  SL  SL  SL  SL  SL  $   | THREE OR FOUR WAY FLUSH TUMBLER SWITCH<br>LOW VOLTAGE WALL SWITCH<br>WALL MOUNTED SWITCH WITH INTEGRAL OCCUPANCY SENSOR<br>OCCUPANCY SENSOR<br>LOW VOLTAGE DIMMER SWITCH - PROVIDE DIMMER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE: 2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4* EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I E 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | ECEMPTEPOEMERFAFIREFAAPFIREFACPFIREFATCFIREFSSFUSEGAPGRAFGFIGROUHPHORSIGISOLAJBJUNCKVAKILOKVAKILOKWKILOMCBMAINMHMOUIMLOMAINNNEWNACNOTINECNATIONPNLPANEPCPERSØ,PHPHASPPOLERRELOEX.RECERM.ROOUTYP.TYPICUONUNLEVVOLTWWATXDEMANOTE:THESE ARE STANDARDON THE CONTRACT DEFLEECTR  | PTY CONDUIT<br>ERGENCY POWER OFF<br>E ALARM<br>E ALARM ANNUNCIATOR PANEL<br>E ALARM CONTROL PANEL<br>E ALARM TERMINAL CABINET<br>SED SAFETY SWITCH<br>APHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>RSEPOWER<br>LATED GROUND<br>ICTION BOX<br>DVOLT AMPERE<br>D CIRCULAR MILS<br>DWATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LIGS ONLY<br>V<br>TIFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>I-FUSED SAFETY SWITCH<br>'EL<br>SONAL COMPUTER<br>SE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>ITHERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>AWINGS.  |
| <ul> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10</li> <li>11</li> </ul>   | <ul> <li>BE LISTED BY THE UNDERWRITERS (JABORATORIES), NO. (UL). DEFECTIVE EQUIPMENT OR EQUIPMENT AND ARCHITECT AND ENDINGER. WHERE APPLICABLE, ALL EQUIPMENT GIVENER MERTING THAT APPROVAL ARCHITECT AND ENDINGER. WHERE APPLICABLE, ALL EQUIPMENT GIVEN ALL BE IN ACCORDANCE WITH NEWS STATUES AND PERFORMED IN ACCORDANCE WITH ALL BULLIONG OLDES AND RECORD RC AND FRANCES DRY THE BULLIDING CO. (C) F. ALL MON SHALL BE IN ACCORDANCE WITH ALL BULLIDING ALL SEARD RECORD ATTOMS AS PROVIDED BY THE BULLIDING CO. F. ALL MON SHALL BE INALCON AND OTHER ELECTRICAL RACEWRYS MASS INFORMED BY THE BUILDING CO. (C) F. ALL MON SHALL BE INALLED IN A NEXT, AND WORKMALL MEMANIES.</li> <li>MHERE CONDUITS, WIRENAYS, AND OTHER ELECTRICAL RACEWRYS MASS INFORMED AN EFFECTIVE WARES THE SPREAD OF HER AND SMOKE, APPROVED MUNIFICAL RECUIRE AND RECOVER THE APPROVAL SHALL BE IN TRULY CATE, DELIVERED TO THE GIRINEER AND RECOVER THE ADVISION OF THE ADVISION AND AND AND AND AND AND AND AND AND AN</li></ul>  | ED IN THE<br>L OF THE<br>NDARDS.<br>SHALL BE<br>DWNER.<br>OR SLABS, 6.<br>BARRIER<br>PROPERTY OF<br>RCE TO 7.<br>NG SPACE<br>EER<br>ROUND<br>DERED BY<br>GINEER DOES<br>ANS, 8.<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>OTED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE   | INTERRUPT RATING OF EQUIPMENT SHALL BE THE SAME AS THAT OF EXISTING EQUIPMENT.<br>PARELBOARD DIRECTORY TO REPLET CHANGES MADE TO PARLEDARD AND AND EVICE(S). SPECI-<br>ROOM NUMBER AND TYPE OF ROOM (U.e., RECEPTACIES-OFFICES (A) 6156 a 516, THE CONTR<br>COMPLIANCE WITH NEC 408.4 IS MET CLEARLY ON ALL PANELBOARD DIRECTORIES.<br>INTERRUPTION OF ELECTRICAL POWER<br>A. COORDINATE ALL WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br>WRITTEN PERMISSION FROM THE BUILDING OWNER PRIOR TO SHUTTING DOWN POWER TO A<br>THE CONTRACTOR SHALL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDULEE<br>SITE VISIT<br>A. PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXISTIN<br>ARCHITECT AND/OR ENGINEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P<br>SPECIFIE OR SHOWN ON THE DRAWINGS FROM BEING PERFORMED. FAILURE TO SURVEY T<br>START OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO<br>CONFINES OF EXISTING CONDITIONS.<br>GUARANTEE<br>A. LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOR<br>WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT<br>TEAR, WITHIN ONE YEAR RUOM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL MN<br>ACCEPTANCE.<br>B. DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS '<br>AND EQUIPMENT, PAPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br>MADEOUTHON TORE.<br>C. THE ELECTRICAL CURRANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS '<br>AND EQUIPMENT, PAPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br>PROPER FUNCTIONING.<br>C. THE ELECTRICAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.<br>D. DEMONITION FORMER SHALL BE RESPONSIBLE FOR AND ANALL INCUR FINANCIAL F<br>DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.<br>D. MANTAIN CONTINUTY OF ALL SYSTEMS IN THE DESIGN TO THE SATISFACTION OF THE<br>COMMINGS AND THEN INFORMATION SHALL BE DELIVERED TO THE OWNER UPON OR<br>B. MANTAIN CONTINUTY OF ALL SYSTEMS IN THE DESIGN TO THE SATISFACTION OF THE<br>COMMENT BOD FROMENCES HALL ING FOR                                 | PROVIDE NEW TYPED<br>TO REMAIN CIRCUITS. THE<br>FIC LOCATION SHALL INDICATE<br>ACTOR SHALL INSURE THAT<br>ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN TO BID AND<br>OT BE CONSTRUED AS FINAL<br>DE ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>CO SHOP DRAWINGS, REVISIONS<br>EDURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | SLD $SLD$ $Q$   | LUW VOLTAGE WALL SWITCH<br>WALL MOUNTED SWITCH WITH INTEGRAL OCCUPANCY SENSOR<br>OCCUPANCY SENSOR<br>LOW VOLTAGE DIMMER SWITCH - PROVIDE DIMMER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>SUBSCRIPT MAY BE "PC" OR "C" WALL MOUNTED DOUBLE DUPLEX RECEPTACLE<br>2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS ILE. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | FAAPFIREFACPFIREFATCFIREFSSFUSEGAPGRAFGFIGROHPHORSIGISOLJBJUNOKVAKILOKVAKILOKWKILOMCBMAINMHMOUMLOMAINNNEWNACNOTINECNATIONFSSNON-PNLPANEPCPERSØ,PHPHASPPOLERRELCEX.RECKM.ROOTYP.TYPIOUONUNLEVVOLTWWATMPWEATXDEMOXFMRTRANNOTE:THESE ARE STANDAREON THE CONTRACT DEFLEECTR   | E ALARM ANNUNCIATOR PANEL<br>E ALARM ANNUNCIATOR PANEL<br>E ALARM TERMINAL CABINET<br>SED SAFETY SWITCH<br>APHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>RSEPOWER<br>LATED GROUND<br>ICTION BOX<br>DVOLT AMPERE<br>D CIRCULAR MILS<br>DWATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LUGS ONLY<br>V<br>TFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>LFUSED SAFETY SWITCH<br>EL<br>SONAL COMPUTER<br>SE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>THERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>AWINGS.   |
| <ul> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10</li> <li>11</li> </ul>   | <ul> <li>DEPROVED IN ACCORDANCE WITH ALL BUILDING FULLS AND REQUIRE MANNER</li> <li>PERFORMED IN ACCORDANCE WITH ALL BUILDING FULLS AND REQUIRED ATTOM ROWINE PROVIDED AND FIRE BUILDING</li> <li>WIRKING SHALL ED AND STALLED IN A NORT AT AND WORKMANUME HANKER SPASS THROUGH FIRE RATED PARTITIONS<br/>INSTALL ALL LISTED FOR FORCEAL SHALL BE INTERPLICATE, DELIVERED TO THE BUILDING PARTEFECTIVE<br/>ACAINST THE SPREAD OF FIRE AND SMOKE APPROVED ANAULACTURERS. HLT A SM.</li> <li>ALL CERTRICATES OF PROVAL SHALL BE IN TRIPLICATE, DELIVERED TO THE BUSINEER, AND BECOME THE P<br/>THE OWNER.</li> <li>VERIFY ALL EQUIPMENT REQUIREMENTS BEFORE INSTALLING CONDUIT OR CONDUCTORS FROM POWER SOUR<br/>EQUIPMENT TERMINATION.</li> <li>X-RAY SLAB IN AREA OF PRETTRATION PRIOR TO COCE DRILLING AND COORDINATE WITH EQUIPMENT IN CELLIN<br/>BELOW TO CHECK FOR OBSTRUCTIONS. IN ADDITION, REVEW SLAB PENETRATIONS WITH STRUCTURAL ENGIN<br/>RETAINED BY THE CONTRACTOR IN ORDER TO INSURE THAT THE STRUCTURAL ENGIN<br/>RETAINER SHALL COORDINATE WITH THE BULIONS OWNER FOR ANY ADDITIONAL REQUIREMENTS OR FG<br/>OPENETRATING RADAR (BRY) SAN ACCENTRACTOR FROM OBLIGATIONS UNDER THE CONTRACTOR SHALL BOORDING.</li> <li>KENNES SCHOLTS, SCHOLT SCHOLT AND STRUCTURAL ENGINE<br/>RETAINS RADAR DEPRESSION.</li> <li>ENGINEER SCHOLT SCHOLT AND STRUCTURAL REQUIREMENTS OF THE ONLY AND<br/>CONTRACTOR SHALL COORDINATE WITH THE BULIDING OWNER FOR ANY ADDITIONAL REQUIREMENTS OR FG<br/>DENNEER WITH ALL BECONFRRUCTION FROM OBLIGATIONS UNDER THE CONTRACTOR SHALL BOORDING.</li> <li>ENGINEER SCHOLT SCHOLT AND STRUCTURAL REQUIREMENTS OF THE NEXT<br/>ADDITIONAL REQUIREMENT RECOVER SCHOLT SCHOLT AND THE ADDITIONAL REQUIREMENTS OF THE NEXT<br/>ADDITIONAL DEVENTION TO SUBJECT ON CONTRACTOR SHALL MARE SUBJECT ON CONTRACTOR SHALL BE CONFRRUCTION OF THE SCHOLT SHALL BE CONFRRUCTION SHALL BE CONFRRUCTIONS AND ALL CONTRACTOR SHALL BE CONFRRUCTION OF THE SCHOLT SHALL BE CONFRRUCTION OF THE ADDITIONS FROM THE PROCEMAGE OF THE DEVENT<br/>ADDITIONE RE RESPONSIBLE FOR DENTIFICATION ON STALE PROVIDER SHALL BE CONFRR</li></ul>   | OR SLABS, 6.<br>BARRIER 7.<br>PROPERTY OF 7.<br>ACE TO 7.<br>NG SPACE<br>EER E<br>ROUND 7.<br>DERED BY<br>GINEER DOES ANS, 8.<br>PRECAUTIONS ORK IN 8.<br>PRECAUTIONS FOR 8.<br>PRECAUTIONS FOR 9.<br>N. ALL WIRE 9.<br>N. ALL WIRE 7.<br>IBLE CABLE, 10.<br>SHALL BE 3/4<br>TED 10.<br>SHALL BE 3/4<br>TED 10.<br>SHALL BE 3/4<br>TED 2.<br>LACK OF A 10.<br>STMBOL 10.<br>STMBO | <ul> <li>NOMELIANCE WITH NEC 406 JE SMELLER ALCEPT ALCEPT ANALESSAM, DIRECTORIES.</li> <li>INTERRUPTION OF ELECTRICAL POWER</li> <li>COORDINATE ALL WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br/>WRITTEN PERMISSION FROM THE BUILDING OWNER PRIOR TO SHUTTING DOWN POWER TO A<br/>THE CONTRACTOR SHALL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDULED</li> <li>SITE VISIT</li> <li>PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILLARIZE YOURSELF WITH ALL EXISTI<br/>ARCHITECT AND/OR ENGINEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOWN ON THE DRAWINGS FROM BEING PERFORMED. FALLIRE TO SURVEY T<br/>START OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO<br/>CONFINES OF EXISTING CONDITIONS.</li> <li>GUARANTEE</li> <li>LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOM<br/>WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP EXECTS, EXCEPT<br/>TEAR, WITHIN ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AND EQUIFICATION.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AND EQUIFIENCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AND EQUIFIENCE ON INFORM DETAIL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL FOR<br/>MACEPTANCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AND EQUIFIENT, APPRATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br/>PROPER FUNCTIONING.</li> <li>THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL FO<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHARGES MADD<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE GAIRS MADD<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE CARE<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHARGES MADD<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE RAI<br/>COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXIST</li></ul>   | ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>RKING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>DT BE CONSTRUED AS FINAL<br>DF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>E TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>DURING SIGN TEAM,<br>I SIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $ \begin{array}{c} \bigcirc \\ SLD \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$  | OCCUPANCY SENSOR<br>LOW VOLTAGE DIMMER SWITCH - PROVIDE DIMMER VOLTAGE TO<br>MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V FOR PERSONAL COMPUTER.<br>SUBSCRIPT MAY BE "PC" OR "C" WALL MOUNTED DOUBLE DUPLEX RECEPTACLE<br>2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT MOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT MOMERUN TO PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 34" EC<br>MINIMUM. TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | FATC FIRE<br>FSS FUSE<br>GAP GRAF<br>GFI GROU<br>HP HORS<br>IG ISOLA<br>JB JUNO<br>KVA KILO<br>KVA KILO<br>KVA KILO<br>KVA KILO<br>KW KILO<br>MCB MAIN<br>MH MOU<br>MLO MAIN<br>MH MOU<br>MLO MAIN<br>N NEW<br>NAC NOTI<br>NEC NATIO<br>NFSS NON-<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RECE<br>RM. ROO<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEA<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARD<br>ON THE CONTRACT DE   | E ALARM TERMINAL CABINET<br>SED SAFETY SWITCH<br>APHIC ANNUNCIATOR PANEL<br>OUND-FAULT INTERRUPTER<br>RSEPOWER<br>LATED GROUND<br>ICTION BOX<br>OVOLT AMPERE<br>D CIRCULAR MILS<br>DWATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LUGS ONLY<br>V<br>'IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>'IONAL ELECTRIC CODE<br>+FUSED SAFETY SWITCH<br>EL<br>SONAL COMPUTER<br>SE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>THERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>AWINGS.   |
| 3.   | <ul> <li>INSTALLA UL LETED FIRE STOP OF ROCKWOOL FIBER OR SILICON FOAM SEALANT TO PROVIDE AN EFFECTIVE AGAINST THE SPREAD OF FIRE AND SMOKE. APPROVED NAWLFACTURESES. HIT &amp; SM</li> <li>ALL CERTIFICATES OF APPROVAL SHALL BE IN TRIPLICATE, DELIVERED TO THE ENGINEER, AND BECOME THE PTHE OWNER.</li> <li>VERIFY ALL EQUIPMENT REQUIREMENTS BEFORE INSTALLING CONDUT OR CONDUCTORS FROM POWER SOUR COUPMENT TERMINATION.</li> <li>X-RAY SLABI MAREA OF PENETRATION PRIOR TO CORE DEILLING AND COORDNATE WITH EQUIPMENT IN CELLID BELOW ON CHECK FOR OSTITUCTIONS. IN ADDITIONAL REQUIREMENT IN CELLID BELOW ON CHECK FOR OSTITUCTIONS. IN ADDITIONAL REQUIREMENT IN CELLID BELOW ON CHECK FOR OSTITUCTIONAL DOCUMENT CONTACTOR SHALL COORDNATE WITH EQUIPMENT IN CELLID CONTACTOR SHALL COORDNATE WITH FUE VILLIDON CONTACTOR SHALL COORDNATE WITH CONTACTOR SHALL COORDNATE WITH THE UNLIDING OWNER FOR ANY AND DOTIONAL REQUIREMENTS ON FIR OWNER AND AND DOTIONAL REQUIREMENTS ON THE CONTACTOR SHALL FOR CONTACTOR SHALL TO PROVE AND IN OTT RESPONSIBLE FOR DIVERSION CONTACTOR SHALL BE CONFRACTOR SHALL BE TO PROPRIME THE WITH CONTACTOR SHALL BE CONFRACTOR SHALL BE CORPER CONFIGER RESPONSIBLE FOR CONTACTOR SHALL BE CONFRACTOR DOCUMENTS AND ADDITANAL REQUIREMENTS OF THE NATIONAL LECTOR SHALL BE CONFRACTOR SHALL BE CONFRACTOR</li></ul>   | BARRIER<br>PROPERTY OF<br>ACE TO 7.<br>NG SPACE<br>ER<br>ROUND<br>DERED BY<br>SINEER DOES<br>ANS, 8.<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>TED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ul> <li>COORDINATE ALL WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER WITH THE BUILD<br/>WRITTEN PERMISSION FROM THE BUILDING OWNER PRIOR TO SHUTTING DOWN POWER TO A<br/>THE CONTRACTOR SHALL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDULED.</li> <li>SITE VISIT</li> <li>PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXISTIN<br/>ARCHITECT ANDOR BURGNEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOWN ON THE DRAWINGS FROM BEING PERFORMED. FAILURE TO SURVEY T<br/>START OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO<br/>CONFINES OF EXISTING CONDITIONS.</li> <li>GUARANTEE</li> <li>LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOR<br/>WITHOUT CHARGE. REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS. EXCEPT<br/>TEAR, WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL NO<br/>ACCEPTANCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I<br/>AND GUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br/>PROPER FUNCTIONING.</li> <li>THE LECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL F<br/>DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.</li> <li>DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE<br/>CMPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND OTHER MODIFICATIONS. IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE WORK UPON CO<br/>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. INTEGRITY TO OTHER AI<br/>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li></ul>  | ING OWNER AND SHALL OBTAIN<br>NY ELECTRICAL EQUIPMENT.<br>INTERRUPTIONS OF POWER.<br>G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>RKING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>DT BE CONSTRUED AS FINAL<br>DF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>E TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>E DURING CONSTRUCTION. THE<br>DWPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$  | MATCH FIXTURE CAPACITY CIRCUITED.<br>EMERGENCY POWER OFF BUTTON<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V<br>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V FOR PERSONAL COMPUTER.<br>SUBSCRIPT MAY BE 'PC' OR 'C' WALL MOUNTED DOUBLE DUPLEX RECEPTACLE<br>2P-3W-20A-125V<br>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS<br>INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS & NUMBERS NEXT TO<br>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS 1.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | GAP GRAF<br>GFI GROU<br>HP HORS<br>IG ISOL<br>JB JUNC<br>KVA KILO<br>KVA KILO<br>KCM KILO<br>KCM KILO<br>MCB MAIN<br>MH MOU<br>MLO MAIN<br>N NEW<br>NAC NOTI<br>NEC NATIO<br>NFSS NON-<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELC<br>EX. RECE<br>RM. ROO<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEAT<br>X DEMO   | APHIC ANNUNCIATOR PANEL<br>DUND-FAULT INTERRUPTER<br>RSEPOWER<br>LATED GROUND<br>ICTION BOX<br>DVOLT AMPERE<br>D CIRCULAR MILS<br>DWATT<br>N CIRCUIT BREAKER<br>JNTING HEIGHT<br>N LUGS ONLY<br>V<br>TIFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>I-FUSED SAFETY SWITCH<br>IEL<br>SONAL COMPUTER<br>SE<br>E<br>OCATED<br>I-EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>THERPROOF<br>OLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| <ul> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10</li> <li>11</li> </ul>   | <ol> <li>VEREY ALL BOUMENT REQUIREMENTS BEFORE INSTALLING CONDUIT OR CONDUCTORS FROM POWER SOUR<br/>EQUIPMENT TERMINATION.</li> <li>X.RAY SLAB IN AREA OF PENETRATION PRIOR TO CORE DRILLING AND COORDINATE WITH EQUIPMENT IN CELLIN<br/>BELOW TO CHECK FOR OBSTRUCTIONS. IN ADDITION, REVIEW SLAB PENETRATIONS WITH STRUCTURE A ENGIN<br/>RETAINAGE BY THE CONTRACTOR IN ONGET TO INSURE THAT THE STRUCTURES INTEGRATIONS UNTER STURIES OR IF GI<br/>PENETRATING RADA (CPR) IS AN ACCEPTABLE ALTERNATE TO X.RAY.</li> <li>E. ENGINEERS CONSTRUCTION PHASE SERVICES ARE INTENDED TO BENEFIT THE CLIENT ONLY. SERVICES RED<br/>ENGINEER DO NOT RELIEVE CONTRACTOR ROM OBLICATIONS UNDER THE CONSTRUCTION DOCUMENTS. ENN<br/>NOT HAVE AUTHORITY TO SUPERVISE, DIRECT OR CONTRACTOR, AND IS NOT RESPONSIBLE FOR NEM-<br/>METHODS. SECHIOLOGUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION OR FOR SAFETY PROBRAMS OF<br/>DURING CONSTRUCTION. NO IS ENGINEER RESPONSIBLE FOR CONTRACTOR, SHALLINE TO PENFORM THE W<br/>ACCORDANCE WITH EC CONSTRUCTION BOLOMENTS OF CONTRACTOR SHALL TO PENFORM THE W<br/>ACCORDANCE WITH EC CONSTRUCTION BOLOMENTS OF CONTRACTOR SHALL MAKE SURE THAT SUBSTRUCTION<br/>CANNOT BE RESPONSIBLE FOR DEDINTING ALL SUBSTITUTIONS OF THEY ARE CLEARLY DELINEATED AS SUCH. ENGIN<br/>CONDUCTORS SHALL ECOURTRACTOR SUBSTITUTIONS IF THEY ARE CLEARLY DELINEATED AS SUCH. ENGIN<br/>CONDUCTORS SHALL BE CORPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL RELOT<br/>MEETS ELECTRICAL REQUIREMENTS AS WELL PHYSICAL REQUIREMENTS OF SPECIFIED EQUIPMENT IS<br/>REFEDENCICLULY NOTED AS SUCH IN WRITING. CONTRACTOR SHALL BAKE SURE THAT SUBSTRUCTION ED AL<br/>MEMORY DETING AD AND AND LARGER. SOLID FOR NO. 10 AWG AND SMALLER. THE USE OF ALUMINUM CONDU<br/>ANY PURPOSE SHALL DE CONDOR OBCIDE ON TO DECREMENTS OF SPECIFIED EQUIPMENT IS<br/>REFEDENCE. AND LARGER SOLID FOR NO. 10 AWG AND SMALLER. THE USE OF ALUMINUM CONDU<br/>ANY PURPOSE SHALL DE CORPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL<br/>STRANDED FOR NO. A AWG AND LARGER. SOLID FOR NO. 10 AWG AND SMALLER. THE USITIONS ON THE VERTION<br/>OTHERWISE CHANNELY SYST</li></ol> | RCE TO 7.<br>NG SPACE<br>IEER<br>E NOUND<br>DERED BY<br>GINEER DOES<br>ANS, 8.<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>IRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>TED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ul> <li>THE CONTRACTOR SHALL ALSO PROVIDE NOTICE TO ALL OTHER TRADES OF ALL SCHEDULEL</li> <li>SITE VISIT</li> <li>A. PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILARIZE YOURSELF WITH ALL EXISTIN<br/>ARCHITECT AND/OR ENGINEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P<br/>SPECIFIED OR SHOWN ON THE DRAWINGS FROM BEING PERFORMED. FAILURE TO SURVEY T<br/>START OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO<br/>CONFINES OF EXISTING CONDITIONS.</li> <li>GUARANTEE</li> <li>A. LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOF<br/>WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS. EXCEPT<br/>TEAR, WITHIN ONE YEAR ROM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL NO<br/>ACCEPTANCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS IN<br/>AND EQUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br/>PROPER FUNCTIONING.</li> <li>THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL F<br/>DAMAGES CAUSED BY, OR RESULTING FRAM, DEFECTS IN HIS WORK.</li> <li>DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE<br/>CMPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>A MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND THER MODIFICATIONS. IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MAND<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CC</li> <li>DEMOLITION NOTES</li> <li>A. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. WORK.</li> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND THE MODIFICATIONS. INGO ORDOR PRIME AND MARKED TO RECORD ALL CHANGES MORE<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CC</li> <li>DEMOLITION NOTES</li> <li>A. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. WORK.</li> <li>MAINTAIN AT THE ATHER INF</li></ul>   | G CONDITIONS OF POWER.<br>G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>RKING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>D BE CONSTRUED AS FINAL<br>D FALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>D DURING CONSTRUCTION. THE<br>DURING S, REVISIONS<br>CONSTRUCTION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | $ \begin{array}{c}                                     $  | <ul> <li>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V</li> <li>WALL MOUNTED DOUBLE DUPLEX RECEPTACLE; 2P-3W-20A-125V</li> <li>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V FOR PERSONAL COMPUTER.</li> <li>SUBSCRIPT MAY BE "PC" OR "C" WALL MOUNTED DOUBLE DUPLEX RECEPTACLE</li> <li>2P-3W-20A-125V</li> <li>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION</li> <li>VOICE OUTLET</li> <li>DATA OUTLET</li> <li>COMBINATION DATA/ VOICE OUTLET.</li> <li>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.</li> <li>CEILING OR WALL MOUNTED JUNCTION BOX</li> <li>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION</li> <li>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS</li> <li>INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS &amp; NUMBERS NEXT TO</li> <li>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS</li> <li>INSULATED GROUND WIRE</li> <li>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC</li> <li>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG</li> <li>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.</li> <li>HOMERUN TO SWITCH LOCATION</li> <li>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)</li> <li>MOTOR CONNECTION</li> <li>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH</li> </ul>  | IG ISOLA<br>JB JUNC<br>KVA KILO<br>KVA KILO<br>KVA KILO<br>KW KILO<br>MCB MAIN<br>MH MOU<br>MLO MAIN<br>N NEW<br>NAC NOTI<br>NEC NATIO<br>NFSS NON<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELO<br>EX. RECE<br>RM. ROO<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEAT<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE   | REEPOWER<br>LATED GROUND<br>ACTION BOX<br>DVOLT AMPERE<br>D CIRCULAR MILS<br>DWATT<br>N CIRCUIT BREAKER<br>UNTING HEIGHT<br>N LUGS ONLY<br>V<br>IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>I-FUSED SAFETY SWITCH<br>IEL<br>SONAL COMPUTER<br>SE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>ITHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>AWINGS.   |
| <ul> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10</li> <li>11</li> </ul>   | <ul> <li>AND CONTRACTOR STALLED NATIONAL STANDARD NO CONCENTRATION AND THE ADDRESS PRESENTATION WITH STANDARD THE STANDARD THE CONTRACTOR NO ADDRESS TO INSURE THAT THE STRUCTURES INTEGRITY IS MAINTABLE. THE CONTRACTOR SHALLE CONTRACTOR NALLE CONTRACTOR NALLE CONTRACTOR NALLE CONTRACTOR NALLE CONTRACTOR NALLE ALTERNATE TO X RAY.</li> <li>ENDIEERS CONSTRUCTION PRASE SERVICES ARE INTEGRITY THE CULTURE STRUCTURE CONTRACTOR SHALLE ALTERNATE TO X RAY.</li> <li>ENDIEERS CONSTRUCTION PRASE SERVICES ARE INTEGRITY THE CLIENT ONLY. SERVICES REIND NOT RELIEVE CONTRACTOR SHALLE ALTERNATE TO X RAY.</li> <li>ENDIEERS CONSTRUCTION NOR SERVICES ARE INTEGRITY ADDITIONAL RESPONSIBLE FOR REIND NOT RELIEVE CONTRACTOR SHALLE ALTERNATE TO X RAY.</li> <li>ENDIERES CONSTRUCTION NOR SERVICES ARE INTEGRITY ADDITIONAL RESPONSIBLE FOR REIND NOT RELIEVE CONTRACTOR SHALL MALE SUBSTRUCTION OF OR SAFETY PROGRAMS OR FOUND EXAMINES CONSTRUCTION. NOR IS ENSIGER CONTRACTOR SHALL MARE SUBE TO PERFORM THE WILL ADDITION. NOR IS ENSIGER CONTRACTOR SHALL MARE SUBE TO PERFORM THE WILL ADDITION. NOR IS ENSIGER CONTRACTOR SHALL MAKE SUBE TO PERFORM THE WILL ADDITION DOCUMENTS OR DEVITIONS FROM THE CONTRACTOR CONSTRUCTOR SHALL MARE SUBSTRUCTION DOCUMENTS ON DEVITIONS FROM THE CONTRACT OR SHALL MARE SUBSTRUCT AND SUBMETATIONES ON DEVITIONS FROM THE CONTRACT OR SHALL MARE SUBSTRUCT ADDITION DOCUMENTS AND AND AND AND AND AND AND AND AND AND</li></ul>  | IEER<br>E<br>ROUND<br>DERED BY<br>GINEER DOES<br>ANS, 8.<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>OTED<br>ELACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE   | <ul> <li>A. PRIOR TO SUBMITTING HIS BID, VISIT THE SITE AND FAMILIARIZE YOURSELF WITH ALL EXISTIN ARCHITECT AND/OR ENGINEER IN ADVANCE OF ANY CONDITION THAT EXISTS THAT WOULD P SPECIFIED OR SHOWN ON THE DRAWINGS FROM BEING PERFORMED, FALURE TO SURVEY T START OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO CONFINES OF EXISTING CONDITIONS.</li> <li>GUARANTEE</li> <li>A. LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOY WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT TEAR, WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL NO ACCEPTANCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS IN AND EQUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO PROPER FUNCTIONING.</li> <li>THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL FUNCTIONING.</li> <li>THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL FUNCTIONING.</li> <li>DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE CMPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON COMPOND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE SET OF DRAWINGS AND CHTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON COMPOND.</li> <li>DEMOLITION NOTES</li> <ul> <li>A REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. INTEGRITY TO OTHER AND LIGHTING FIXTURES TO BE REMOVED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES TO REMAVEL ON THE ARCHITEG TO BE REMOVED.</li> <li>DEMOLITION NOTES</li></ul></ul>  | G CONDITIONS. NOTIFY THE<br>REVENT THE WORK HEREIN<br>HE SITE PRIOR TO BID AND<br>INSTALL DESIGN WITHIN THE<br>RKING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>OT BE CONSTRUED AS FINAL<br>OF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>TENANT, DESIGN TEAM,<br>O SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>OMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $ \begin{array}{c} & & & \\ & $ | <ul> <li>WALL MOUNTED DUPLEX RECEPTACLE, 2P-3W-20A-125V FOR PERSONAL COMPUTER.</li> <li>SUBSCRIPT MAY BE "PC" OR "C" WALL MOUNTED DOUBLE DUPLEX RECEPTACLE 2P-3W-20A-125V</li> <li>SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE- NEMA CONFIGURATION</li> <li>VOICE OUTLET</li> <li>DATA OUTLET</li> <li>COMBINATION DATA/ VOICE OUTLET.</li> <li>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.</li> <li>CEILING OR WALL MOUNTED JUNCTION BOX</li> <li>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION</li> <li>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION</li> <li>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS &amp; NUMBERS NEXT TO ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS</li> <li>INSULATED GROUND WIRE</li> <li>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.</li> <li>HOMERUN TO SWITCH LOCATION</li> <li>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)</li> <li>MOTOR CONNECTION</li> <li>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH</li> </ul>   | KVAKILOVKCMKILOVKCMKILOVKWKILOVMCBMAINMHMOULMLOMAINNNEWNACNOTINECNATIONPNLPANEPCPERSØ,PHPHASPPOLERRELCOEX.RECORM.ROODTYP.TYPIOUONUNLEVVOLTWWATWPWEAXXDEMOXFMRTRANNOTE:THESE ARE STANDARDON THE CONTRACT DEELECTR  | AVION BOX<br>DVOLT AMPERE<br>D CIRCULAR MILS<br>DWATT<br>N CIRCUIT BREAKER<br>UNTING HEIGHT<br>N LUGS ONLY<br>V<br>IFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>V-FUSED SAFETY SWITCH<br>IEL<br>ISONAL COMPUTER<br>ISE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>VHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.  |
| 3.   | <ul> <li>PENETRATING RADAR (GPR) IS AN ACCEPTABLE ALTERNATE TO X.RAY.</li> <li>K. ENGREERS CONSTRUCTION PAGES SERVICES ARE INTENDED TO BEINFITTHE CLIENT ONLY. SERVICES PREND<br/>NOT HAVE AUTHORITY TO SUPERVISE, DIRECT OR CONTRACTOR, AND IS NOT RESPONSIBLE FOR ME<br/>METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION OR TOR SAFETY PROGRAMS OR F<br/>DURING CONSTRUCTION. NOR IS ENSINEER RESPONSIBLE FOR CONTRACTORS FAILURE TO PERFORM THE W<br/>ACCORDANCE WITH THE CONSTRUCTION DO CUMERS OF ADVITRACTORS FAILURE TO PERFORM THE W<br/>ACCORDANCE WITH THE CONSTRUCTION DO CUMERS OR APPLICABLE LAWS OR CODES.</li> <li>ENGINEER WILL CONSIDER CONTRACTOR SUBSITUTIONS OF THEY ARE CLEARLY DELINEATED BAS SUCH. ENSIN<br/>CANNOT BE RESPONSIBLE FOR IDENTIFYING ALL SUBSTITUTIONS OF DEVIATIONS FROM THE CONTRACT DOCU<br/>UNLESS SPECIFICALLY NOTED AS SUCH IN WRITING. CONTRACTORS HALL MAKE SURE THAT SUBSTITUTED ED.<br/>MEETS ELECTRICAL REQUIREMENTS AS WELL PHYSICAL REQUIREMENTS OF SPECIFIED EQUIPMENT.</li> <li>WIRING METHODS</li> <li>A. ALL CONDUCTORS SHALL BE COPPER. CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECT<br/>STRANDED FOR NO. 8 AWG AND LARGER. SOLID FOR NO. 10 AWG AND SMALLER. THE USE OF ALUMINUM CONDU-<br/>ANY PURPOSE SHALL NO E ACCEPTABLE.</li> <li>B. ALL NEW LUGS &amp; CONNECTORS SHALL RATED FOR 75 DEGREE CENTIGRADE. WHERE EXISTING EQUIPMENT IS<br/>REFED, REPLACE ANY EXISTING &amp;00 DEGREE CENTIGRADE. COLUMN OF TABLE 310-16 OF THE NET.</li> <li>MURING SHALL DE LIMITED TO THE 75 DEGREE CENTIGRADE. COLUMN OF TABLE 310-16 OF THE NET.</li> <li>C. MINIMUM SZE CONDUCTOR SHALL BE NO. 22 AWG. CONDUCTOR SHALL BE LIMETOR COLUMN. AND PLASTIC TYPE THINNTHW<br/>AMPACITIES SHALL BE LIMITED TO THE 75 DEGREE CENTIGRADE. COLUMN OF TABLE 310-16 OF THE NET.</li> <li>C. MURING SHALL BE LIMITED TO THE 75 DEGREE CENTIGRADE. COLUMN OF TABLE 310-16 OF THE NET.</li> <li>C. CONDUCTOR SHALL BE LOCOPEDAL ON THE EXTERNOR OF THE METAL CLADDING.</li> <li>MURING SHALL BE LIMITED TO THE 75 DEGREE CENTIGRADE. COLUMON TABLE ELECTRICAL. CODE ALL FI</li></ul>   | DERED BY<br>GINEER DOES<br>ANS, 8.<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>IRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>OTED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL  | <ul> <li>START OF CONSTRUCTION WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO CONFINES OF EXISTING CONDITIONS.</li> <li>GUARANTEE</li> <li>A. LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOR WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT TEAR, WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL NG ACCEPTANCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS I AND EQUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO PROPER FUNCTIONING.</li> <li>THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL FD DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.</li> <li>DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE CMPPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO</li> <li>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. INTEGRITY TO OTHER AI COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THA TARE TO BE RELOCATED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THE AXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES WITH EXISTING LIGHTING FIXTURES THA TARE TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES THA TARE TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES WITH EXISTING LIGHTING FIXTURES WITH EXISTING LIGHTING FIXTURES WITH EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>CORDINATE WITH ARCHITECT TO MATCH NEW</li></ul>  | INSTALL DESIGN WITHIN THE<br>RKING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>DT BE CONSTRUED AS FINAL<br>DF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>E TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>E DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $ \begin{array}{c}                                     $  | SPECIAL RECEPTACLE - ALPHANUMERICS INDICATE - NEMA CONFIGURATION<br>VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT PANELBOARD ALPHANUMERICS INDICATES NEXT TO<br>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4° EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | KWKILOMCBMAINMHMOULEMLOMAINNNEWNACNOTINECNATENFSSNON-PNLPANEPCPERSØ,PHPHASPPOLERRELCEX.RECERM.ROODTYP.TYPEUONUNLEVVOLTWWATWPWEATXDEMOXFMRTRANNOTE:THESE ARE STANDAREON THE CONTRACT DEELECTR  | OWATT<br>N CIRCUIT BREAKER<br>UNTING HEIGHT<br>N LUGS ONLY<br>V<br>TIFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>IONAL ELECTRIC CODE<br>N-FUSED SAFETY SWITCH<br>IEL<br>ISONAL COMPUTER<br>ISE<br>E<br>OCATED<br>EPTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>THERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| 3.<br><b>E</b><br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10.<br>11.<br>11.<br>12.<br>12.<br>13.<br>14.<br>15.<br>16.<br>19.<br>10.<br>10.<br>11.<br>11.<br>11.<br>11.<br>11.<br>11  | <ul> <li>NOT HAVE AUTHORITY TO SUPERVISE, DIRECT OR CONTRACTOR, AND IS NOT RESPONSIBLE FOR NEW METHODS. TECHNOLES, SOR PROCEDURES OF CONSTRUCTION OR FOR SAFETY PROGRAMS OR DURING CONSTRUCTION, NOR IS ENGINEER RESPONSIBLE FOR CONTRACTORS FAILURE TO DERFORM THE WC ACCORDANCE WITH THE CONSTRUCTION OR PARIA THE VAR OLEARLY DELINEATED AS SUCH. ENGINEER WILL CONSIDER CONTRACTOR SUBSTITUTIONS OR DEVIATIONS FOR THE CONTRACTOR OUD UNLESS SPECIFICALLY NOTE AS SUCH IN WRITING. CONTRACTOR SHALL MARE SURE THAT SUBSTITUTION OR THEY ARE OLEARLY DELINEATED AS SUCH. IN WRITING. CONTRACTOR SHALL MARE SURE THAT SUBSTITUTIONE OR DEVIATIONS FROM THE CONTRACTOR OUD UNLESS SPECIFICALLY NOTE DAS SUCH IN WRITING. CONTRACTOR SHALL MARE SURE THAT SUBSTITUTIONE ON THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL REQUIREMENTS AS WELL PHYSICAL REQUIREMENTS OF THE NATIONAL ELECTRICAL REQUIREMENTS AS USED IN ANY DURY DURY DURY ON BAY GUIDA MAY PURPOSE SHALL NOT BE ACCEPTABLE.</li> <li>A. ALL CONDUCTORS SHALL BE COPPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL THE USE OF ALUMINUM COND ANY PURPOSE SHALL NOT BE ACCEPTABLE.</li> <li>A. ALL ONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE VASE OF ANY EXISTING DEGREE CENTIGRADE LUGS.</li> <li>MINNUM SIZE CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.</li> <li>ALL ONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL FLE AC OR MC ETC, SHALL BE CONCEDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE OLINI OT THE METAL CLADDING.</li> <li>CONTRACTOR SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL FLE AC OR MC ETC, SHALL BE CONCEDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ALL FLE AC OR MC ETC, SHALL BE CONCEDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ALL FLE AC OR MC ETC, SHALL BE CONCEDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ALL FLE AC OR MC ETC. SHALL BE CONCEDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ALL FLE AC ON MICH AR</li></ul>   | ANS, 8.<br>PRECAUTIONS<br>ORK IN<br>NEER<br>MENTS,<br>JIPMENT<br>IRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>OTED<br>ELACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>LOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE   | <ul> <li>GUARANTEE</li> <li>A. LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WOR WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT TEAR, WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL NG ACCEPTANCE.</li> <li>B. DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS A AND EQUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO PROPER FUNCTIONING.</li> <li>C. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL F DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.</li> <li>D. DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE CMPPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>A. MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE AND DTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO DEMOLITION NOTES</li> <li>A. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION. INTEGRITY TO OTHER AIL LIGHTING FIXTURES TO BE RELOCATED. AND LIGHTING FIXTURES TO BE RELOCATED.</li> <li>D. CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>D. COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>D. COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>D. CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>D. CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>D. CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE</li></ul>   | RKING ORDER AND SHALL,<br>FROM ORDINARY WEAR AND<br>OT BE CONSTRUED AS FINAL<br>OF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>TENANT, DESIGN TEAM,<br>O SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>OMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$  | VOICE OUTLET<br>DATA OUTLET<br>COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS<br>INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS & NUMBERS NEXT TO<br>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4° EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH   | MH MOUL<br>MLO MAIN<br>N NEW<br>NAC NOTI<br>NEC NATIO<br>NFSS NON<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELC<br>RM. ROOU<br>TYP. TYPIO<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEAT<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE   | UNTING HEIGHT<br>N LUGS ONLY<br>N<br>TIFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>TONAL ELECTRIC CODE<br>N-FUSED SAFETY SWITCH<br>IEL<br>SONAL COMPUTER<br>ISE<br>E<br>OCATED<br>E<br>PTACLE<br>M<br>ICAL<br>ESS OTHERWISE NOTED<br>T<br>T<br>T<br>NHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.  |
| 3.   | <ul> <li>ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS OR APPLICABLE LAWS OR CODES.</li> <li>I. ENGINEER WILL CONSIDER CONTRACTOR SUBSTITUTIONS OR DEVATIONS FROM THE CONTRACT DOCUUUNLESS SPECIFICAL REQUIREMENTS AS UCH IN WRITING. CONTRACTOR SHALL MAKE SURE THAT SUBSTITUTED EQUIVEETS ELECTRICAL REQUIREMENTS AS WELL PHYSICAL REQUIREMENTS OF SPECIFIC EQUIPMENT.</li> <li>WIRING METHODS</li> <li>A. ALL CONDUCTORS SHALL BE COPPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECT STRANEED FOR NO. 8 AWG AND LARGER, SOLD FOR NO. 10 AWG AND SMALLER. THE USE OF ALUMINUM CONDU ANY PURPOSE SHALL NOT BE ACCEPTABLE.</li> <li>A. ALL NEW LUGS &amp; CONNECTORS SHALL RATED FOR 75 DEGREE CENTIGRADE. WHERE EXISTING EQUIPMENT IS REFED, REPLACE ANY EXISTING 6D DEGREE CENTIGRADE LUGS WITH NEW 1/05 S ACONDUCTOR SHALL BE THE NOT ANY CONDUCTOR SHALL BE INTERVOLASTIC TYPE THINNTHWITH AMPACITIES SHALL BE LIMITED TO THE 75 DEGREES CENTIGRADE COUNN OF TABLE 310-16 OT THE NEC.</li> <li>MINIMUM SIZE CONDUCTOR SHALL BE NO. 12 AWG. CONDUCTOR SHALL BE THEMOPLASTIC TYPE THINNTHWITH AMPACITIES SHALL BE LIMITED TO THE 75 DEGREES CENTIGRADE COUNN OF TABLE 310-16 OT THE NEC.</li> <li>ALL NEW LUGS &amp; CONDUCTOR SHALL BE NO. 2000 DUTGS SHALL BE THEMOPLASTIC TYPE THINNTHWITH AMPACITIES SHALL BE LIMITED TO THE 75 DEGREES CENTIGRADE COUNN OF TABLE 310-16 OT THE NEC.</li> <li>ALL ONDUCTOR SHALL BE COLOR CODED NO THE EXTERIOR OF THE METAL CONDUIT.</li> <li>CONDUCTION SHALL BE COLOR CODED ON THE EXTERIOR OF THE METAL CONDUIT. MINIMUM CONDUCTOR SHALL BE THENTICAL SYSTEM SHALL BE INSCIDENCE WITH THE NATIONAL ELECTRICAL AS INDICATED ON DRAWINGS.</li> <li>F. ALL WIRING SHALL BE INSTALLED IN CONDUIT (EM.T. OR FLEXIBLE METAL CONDUIT. MINIMUM CONDUIT SIZE SYNCHYL AND WINGS SHALL BE THENCE.</li> <li>ALL VIEND SHALL BE INSTALL BE USED. UNSTALL ACONDUIT. MINIMUM CONDUIT SIZE SYNCHYL AND WALLS WILLESS SPECIFICALLY NO OTHERWINGS.</li> <li>F. ALL WIRING SHALL BE INSTALL BU NECODAVEAU ALL CONDUIT.</li>          ANYL WITH BU</ul>  | NEER<br>MENTS,<br>JIPMENT<br>REUCAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>OTED<br>LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ul> <li>WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT<br/>TEAR, WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. BENEFICIAL USE SHALL NO<br/>ACCEPTANCE.</li> <li>DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS (<br/>AND EQUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br/>PROPER FUNCTIONING.</li> <li>THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL F<br/>DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.</li> <li>DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE<br/>CMIPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO<br/>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CROUTS AFFECTED BY DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CROUTS AFFECTED BY DEMOLITION INTEGRITY TO OTHER AI<br/>COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CROUTS AFFECTED BY DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CROUTS AFFECTED BY DEMOLITION WORK.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES TO BE RELOCATED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE RELOCATED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXIS</li></ul>   | FROM ORDINARY WEAR AND<br>DT BE CONSTRUED AS FINAL<br>DF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   |   | COMBINATION DATA/ VOICE OUTLET.<br>FLUSH FLOOR BOX WITH FLIP LID AND RECESSED RECEPTACLES AND OUTLETS.<br>CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS<br>INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS & NUMBERS NEXT TO<br>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | NNEWNACNOTINECNATIONNFSSNON-PNLPANEPCPERSØ,PHPHASPPOLERRELCOEX.RECOTYP.TYPIONUONUNLEVVOLTWWATWPWEATXDEMOXFMRTRANNOTE:THESE ARE STANDARDON THE CONTRACT DEELECTR   | N<br>TIFICATION APPLIANCE CIRCUIT EXTENDER PANEL<br>TIONAL ELECTRIC CODE<br>N-FUSED SAFETY SWITCH<br>VEL<br>SSONAL COMPUTER<br>SE<br>.E<br>.OCATED<br>.EPTACLE<br>.M<br>ICAL<br>ESS OTHERWISE NOTED<br>.T<br>.T<br>.T<br>.THERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| 3.<br><b>E</b><br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11<br>11   | <ul> <li>UNLESS SPECIFICALLY NOTED AS SUCH IN WRITING. CONTRACTOR SHALL MAKE SURE THAT SUBSTITUTED EQUIMEETS ELECTRICAL REQUIREMENTS AS WELL PHYSICAL REQUIREMENTS OF SPECIFIED EQUIPMENT.</li> <li>WRING METHODS         <ul> <li>ALL CONDUCTORS SHALL BE COPPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECT STRANDED FOR NO. 8 AWG AND LARGER, SOLD FOR NO. 10 AWG AND SMALLER. THE USE OF ALUMINUM CONDIANY PURPOSE SHALL NOT BE ACCEPTABLE.</li> <li>ALL NEW LUGS &amp; CONNECTORS SHALL RATED FOR 75 DEGREE CENTIGRADE. WHERE EXISTING EQUIPMENT IS REFED. REPLACE ANY EXISTING 60 DEGREE CENTIGRADE LUGS WITH NEW 75 DEGREE CENTIGRADE LUGS.</li> <li>MINNUM SIZE CONDUCTOR SHALL BE NO. 12 AWG. CONDUCTORS SHALL BE THERMOPLASTIC TYPE THHIN/THW AMPACITIES SHALL BE LIMITED TO THE 75 DEGREES CENTIGRADE COLLIMO OF TABLE 310-16 OF THE MEC.</li> <li>ALL CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL FLE AC OR MC ETC, SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL FLE AC OR MC ETC, SHALL BE INSTELLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE SINCH.</li> <li>GROUNDING OF THE ENTIRE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SIZE SINCH.</li> <li>ALL WIRING SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE SINCH.</li> <li>ALL WIRING SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE SINCH.</li> <li>ALL ONNOLT AND WIRING SHALL BE CONCEALED IN CELINGS AND/OR WALLS WILLESS SPECIFICALLY NO OTHERWISE. CHANNEL EXSITING WALLS WHERE WIRING RUNS ARE EXPOSED DUE TO THE NEW FINISHED CELING, E.M.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND PERPENDICULAR WITH BUILDING WILLS WHEN EWIRING RUNS ARE EXPOSED DUE TO THE NEW FINISHED CELING. EMANEL KESSTED AND NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN B</li></ul></li></ul>   | JIPMENT<br>FRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>TED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL  | <ul> <li>B. DURING THE ONE YEAR GUARANTEE PERIOD, PROVIDE PROPER REPAIR AND ADJUSTMENTS'<br/>AND EQUIPMENT, APPARATUS, DEVICES, ETC., INSTALLED AND DO ALL WORK NECESSARY TO<br/>PROPER FUNCTIONING.</li> <li>C. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL F<br/>DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.</li> <li>D. DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE<br/>CMPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>A. MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADS<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO<br/>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION. INTEGRITY TO OTHER AI<br/>C. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXISTING LIGHTING FIXTURES TO REMA<br/>LIGHTING FIXTURES TO BE RELOCATED, AND LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES WITH EXISTING LIGHTING<br/>F. REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF<br/>G. DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>ALL RECEPTACLES, UITLETS, FIRE ALARM DEVICES, SWITH EXISTING LIGHTING<br/>FIRTURE, STOBE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>MALL RECEPTACLES, UTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>MEMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF<br/>G. DEMOLISH ALL RECEPTACLES, UNTLETS, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED. REMOVE ALL</li></ul>   | DF ALL ELECTRICAL SYSTEMS<br>ENSURE EFFICIENT AND<br>RESPONSIBILITY FOR ANY<br>ETENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}\\ \end{array}\\ \end{array}\\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}$  | CEILING OR WALL MOUNTED JUNCTION BOX<br>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION<br>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS<br>INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS & NUMBERS NEXT TO<br>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | NEC NATION<br>NFSS NON-<br>PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELC<br>EX. RECE<br>RM. ROOU<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W VAT<br>WP WEAT<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE   | TIONAL ELECTRIC CODE<br>N-FUSED SAFETY SWITCH<br>NEL<br>SSONAL COMPUTER<br>ASE<br>.E<br>.OCATED<br>DEPTACLE<br>DM<br>ICAL<br>ESS OTHERWISE NOTED<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T   |
| 3.<br><b>E</b><br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11   | <ol> <li>WIRING METHODS</li> <li>A. ALL CONDUCTORS SHALL BE COPPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECT<br/>STRANDED FOR NO. 8 AWG AND LARGER, SOLID FOR NO. 10 AWG AND SMALLER. THE USE OF ALUMINUM CONDI<br/>ANY PURPOSE SHALL NOT BE ACCEPTABLE.</li> <li>B. ALL NEW LUGS &amp; CONNECTORS SHALL BATE DFOR 75 DEGREE CENTIGRADE. WHERE EXISTING EQUIPMENT IS<br/>REFED, REPLACE ANY EXISTING 60 DEGREE CENTIGRADE LUGS WITH NEW 75 DEGREE CENTIGRADE LUGS.</li> <li>MINIMUM SIZE CONDUCTOR SHALL BE NO. 12 AWG, CONDUCTORS SHALL BE THERMOPLASTIC TYPE THHINTHW<br/>AMPACITIES SHALL BE COLOR CODED IN ACCORDANCE WITH THE WATIONAL ELECTRICAL CODE. ALL FLE<br/>AC OR MC ETC, SHALL BE COLOR CODED IN ACCORDANCE WITH THE WATIONAL ELECTRICAL CODE. ALL FLE<br/>AC OR MC ETC, SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL<br/>CONDUTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL<br/>AS INDICATED ON DRAWINGS.</li> <li>GROUNDING OF THE ENTRE LECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL<br/>AS INDICATED ON DRAWINGS.</li> <li>ALL WRING SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE SINCH. ALL CONDUIT AND WIRING SHALL BE USD. INSTALL ALL CONDUITS IN RUNS ARE EXPOSED DUE TO THE<br/>NEW FINISHED CELLING, E.M.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND<br/>PERPENDICULAR WITH BUILDING LINES.</li> <li>TYPE MC OR AC CABLE MAY BE USED IN LIEU OF EMT IN CONCEALED SPACES WHERE PERMITTED BY CODES AN<br/>OWNER.</li> <li>PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BI<br/>CIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BC<br/>WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CELING AREAS THESE SHALL BE REL<br/>ADOYE ACCESSIBLE CELING FOR CODE REQUIRED ACCESS. ACCESS PANELS ARE ALLOWED, ONLY IF APPROV<br/>ARCHTECT. TO BID PURPOSES, ASSUME JUNCTION BOX RELIOCATION MUST OCCUP. SEAR ATHEC</li></ol>   | IRICAL CODE,<br>UCTORS FOR<br>REUSED AND 9.<br>N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>OTED<br>LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>LOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ul> <li>C. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL F<br/>DAMAGES CAUSED BY, OR RESULTING FROM, DEFECTS IN HIS WORK.</li> <li>D. DEMONSTRATE OPERABILITY OF ALL SYSTEMS IN THIS DESIGN TO THE SATISFACTION OF THE<br/>CM/PM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>A. MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO</li> <li>DEMOLITION NOTES</li> <li>A. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>B. MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION. INTEGRITY TO OTHER AI<br/>C COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>D. CLEAN, RELAMP AND REPAR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>D. CLEAN, RELAMP AND REPARE EXISTING LIGHTING FIXTURES TO BE RELOCATED.</li> <li>E. COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES WITH EXISTING LIGHTING<br/>F. REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF</li> <li>D. DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>H. ALL RECEPTACLES, UIFT FIXTURES, EXISTING, ALL RECEPTACLES, SUT A EXISTING COATED AND "X" INDICATES TO BE DE<br/>PATCH OVER AND PAINT TO METCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>J. REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE<br/>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ul>  | ESPONSIBILITY FOR ANY<br>TENANT, DESIGN TEAM,<br>D SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | P $P3 14T_5\overline{3}\overline{1}$  | <ul> <li>BRANCH CIRCUIT PANELBOARD - ALPHANUMERICS INDICATES PANEL DESIGNATION</li> <li>BRANCH CIRCUIT HOMERUN TO PANELBOARD - NUMBER OF ARROWHEADS<br/>INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS &amp; NUMBERS NEXT TO<br/>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS</li> <li>INSULATED GROUND WIRE</li> <li>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br/>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br/>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.</li> <li>HOMERUN TO SWITCH LOCATION</li> <li>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)</li> <li>MOTOR CONNECTION</li> <li>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH</li> </ul>  | PNL PANE<br>PC PERS<br>Ø,PH PHAS<br>P POLE<br>R RELC<br>EX. RECE<br>RM. ROOU<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W VAT<br>WP WEAT<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE  | NEL<br>RSONAL COMPUTER<br>ASE<br>E<br>.OCATED<br>.PTACLE<br>DM<br>ICAL<br>ESS OTHERWISE NOTED<br>.T<br>IT<br>ATHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>STRANDED FOR NO. 8 AWG AND LARGER, SULL FOR NO. 10 AWG AND SMALLER.</li> <li>ALL NEW LUGS &amp; CONNECTORS SHALL RATED FOR 75 DEGREE CENTIGRADE. WHERE EXISTING EQUIPMENT IS<br/>REFED, REPLACE ANY EXISTING 60 DEGREE CENTIGRADE LUGS WITH NEW 75 DEGREE CENTIGRADE LUGS.</li> <li>MINIMUM SIZE CONDUCTOR SHALL BE NO. 12 AWG. CONDUCTORS SHALL BE THERMOPLASTIC TYPE THHN/THW<br/>AMPACITIES SHALL BE LIMITED TO THE 75 DEGREES CENTIGRADE COLUMN OF TABLE 310-16 OF THE REC.</li> <li>ALL CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL FLE<br/>AC OR MC ETC, SHALL BE COLOR CODED ON THE EXTERIOR OF THE METAL CLADDING.</li> <li>GROUNDING OF THE ENTIRE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL<br/>AS INDICATED ON DRAWINGS.</li> <li>ALL WIRING SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE S<br/>INCH. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN CELLINGS AND/OR WALLS UNLESS SPECIFICALLY NO<br/>OTHERWISE. CHANNEL EXISTING WALLS WHERE REQUIRED. WHERE WIRING RUNS AWE EXPOSED DUE TO THE<br/>NEW FINISHED CELLING, E.M.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND<br/>PERPENDICULAR WITH BUILDING LINES.</li> <li>TYPE MC OR AC CABLE MAY BE USED IN LIEU OF EMT IN CONCEALED SPACES WHERE PERMITTED BY CODES AN<br/>OWNER.</li> <li>PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BI<br/>CIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BI<br/>CIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BC<br/>WHERE EXISTING JUNCTION DOXES ARE LOCATED ABOVE NEW DRIVALL CELLING AREAS THESE SHALL BE<br/>ABOVE ACCESSIBLE CELLING FOR CODE REQUIRED ACCESS. ACCESS PANELS ARE ALLOWED, ONLY THE<br/>PROVIDE ACCESS PANELS.</li> <li>ALL CONNECTORS PARELS.</li> <li>ALL CONDUCTORS FER NATIONAL ELECTRIC</li></ul>   | REUSED AND 9.<br>N. ALL WIRE<br>EXIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>TED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL  | <ul> <li>CMPM &amp; BUILDING ENGINEER AS NECESSARY AND REQUESTED.</li> <li>RECORD DRAWINGS</li> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO</li> <li>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION. INTEGRITY TO OTHER AN<br/>C. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXISTING LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES WITH EXISTING LIGHTING<br/>F. REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF<br/>G. DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW,<br/>"E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE<br/>PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE<br/>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ul>  | D SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $\frac{1}{4T_5}$  | INDICATE NUMBER OF CIRCUITS IN RUN. LETTERS & NUMBERS NEXT TO<br>ARROWHEADS DESIGNATE PANELBOARD AND CIRCUIT NUMBERS<br>INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | Ø,PH PHAS<br>P POLE<br>R RELC<br>EX. RECE<br>RM. ROOU<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEAT<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE   | ASE<br>.E<br>.OCATED<br>CEPTACLE<br>DM<br>'ICAL<br>ESS OTHERWISE NOTED<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T<br>.T   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>REPED, REPEAU EARLY EAR INIG BUDGREE CENTIGRADE LOGS WITH NEW 75 DEGREE CENTIGRADE LOGS.</li> <li>C. MINMUM SIZE CONDUCTORS SHALL BE LIMITED TO THE 75 DEGREES CENTIGRADE COLUMN OF TABLE 310-16 OF THE NEC.</li> <li>D. ALL CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL FLE AC OR MC ETC, SHALL BE COLOR CODED ON THE EXTRIPOR OF THE METAL CLADDING.</li> <li>E. GROUNDING OF THE ENTIRE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CADE. ALL FLE AC OR MC ETC, SHALL BE COLOR CODED ON THE EXTERIOR OF THE METAL CLADDING.</li> <li>F. ALL WIRNG SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE S INCH. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN CEILINGS AND/OR WALLS UNLESS SPECIFICALLY NO OTHERWISE. CHANNEL EXISTING WALLS WHERE REQUIRED. WHERE WIRING RUNS ARE EXPOSED DUE TO THE NEW FINISHED CEILING, EM.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND PERPENDICULAR WITH BUILDING LINES.</li> <li>G. TYPE MC OR AC CABLE MAY BE USED IN LIEU OF EMT IN CONCEALED SPACES WHERE PERMITTED BY CODES AT OWNER.</li> <li>PROVIDE ANCESS PANELS WHERE REQUIRED FOR RPOPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BC WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CEILING AREAS THESE SHALL BE REL ABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS ACCESS PANELS ARE ALLOWED, ONLY IF APPROV ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL P SPECIFICATIONS OF ACCESS PANELS.</li> <li>ALL CONNECTORS SHALL SWHERE REQUIRED ADR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BC WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CEILING AREAS THESE SHALL BE REL ABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS ANCESS PANELS ARE ALLOWED, ONLY IF APPROV ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL P SPECIFICATIONS OF ACCESS PANELS.</li> <li>ALL CONNECTORS SHALL BE REQUIRED TO PUT THE FIRE</li></ul>   | N. ALL WIRE<br>XIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>DTED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>DOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL  | <ul> <li>MAINTAIN AT THE SITE, FOR THE OWNER, ONE COPY OF ALL DRAWINGS, ADDENDA, APPROVE<br/>AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE<br/>SET OF DRAWINGS AND OTHER INFORMATION SHALL BE DELIVERED TO THE OWNER UPON CO</li> <li>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. INTEGRITY TO OTHER AF<br/>C. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXISTING LIGHTING FIXTURES TO REMA<br/>LIGHTING FIXTURES TO BE RELOCATED, AND LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES WITH EXISTING LIGHTING<br/>FIXTURES TO BE RELOCATED, AND LIGHTING FIXTURES WITH EXISTING LIGHTING<br/>REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF<br/>DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW,<br/>"E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE<br/>PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE<br/>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ul>   | D SHOP DRAWINGS, REVISIONS<br>DURING CONSTRUCTION. THE<br>DMPLETION OF WORK.<br>REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | $4\overline{1}_{5}$   | INSULATED GROUND WIRE<br>BRANCH CIRCUIT WIRING CONCEALED IN CEILING OR WALL - HOMERUNS 3/4" EC<br>MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | R RELC<br>EX. RECE<br>RM. ROOU<br>TYP. TYPIO<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEA<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DE   | OCATED<br>CEPTACLE<br>OM<br>PICAL<br>ESS OTHERWISE NOTED<br>.T<br>IT<br>ATHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.  |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>AC ORMOGYTORS SHALL BE COLOR CODED ON THE EXTERIOR OF THE METAL CLADDING.</li> <li>GROUNDING OF THE ENTIRE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL AS INDICATED ON DRAWINGS.</li> <li>ALL WIRING SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE SINCH. ALL CONDUIT AND WIRING SHALL BE ECONCEALED IN CEILINGS AND/OR WALLS UNLESS SPECIFICALLY NO OTHERWISE. CHANNEL EXISTING WALLS WHERE REQUIRED. WHERE WIRING RUNS ARE EXPOSED DUE TO THE NEW FINISHED CEILING, E.M.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND PERPENDICULAR WITH BUILDING LINES.</li> <li>TYPE MC OR AC CABLE MAY BE USED IN LIEU OF EMT IN CONCEALED SPACES WHERE PERMITTED BY CODES AN OWNER.</li> <li>PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BICIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BOW WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW WEYWALL CEILING AREAS THESE SHALL BE REL CAST FITTINGS ARE NOT ACCESTABLE BE REL ABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS PANELS ARE ALLOWED, ONLY IF APPROV ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL P SPECIFICATIONS OF ACCESS PANELS.</li> <li>ALL CONNECTORS AND/OR COUPLERS SHALL BE STEEL. CAST FITTINGS ARE NOT ACCEPTABLE.</li> <li>SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR EAPHASE CONDUCTORS IF MORE THAN THREE PHASE CONDUCTORS ARE INSTALLED IN A SINGLE PIPE.</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORK</li></ul>   | AIBLE CABLE,<br>L CODE AND 10.<br>SHALL BE 3/4<br>DTED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>LOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ol> <li>DEMOLITION NOTES</li> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION. INTEGRITY TO OTHER AI<br/>C. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXISTING LIGHTING FIXTURES TO BE READ<br/>LIGHTING FIXTURES TO BE RELOCATED, AND LIGHTING FIXTURES TO BE REMOVED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES WITH EXISTING LIGHTING<br/>FIXTURES TO BE DEMOLISHED. REMOVE ALL WIRING BIXTURES SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW,<br/>"E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE<br/>PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE<br/>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ol>  | REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  |   | MINIMUM - TICK MARKS INDICATE NUMBER OF CONDUCTORS I.E. 3#12AWG<br>CONDUCTORS WITH A SEPARATE UL LISTED EQUIPMENT GROUND PATH.<br>HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | RM. ROOL<br>TYP. TYPIC<br>UON UNLE<br>V VOLT<br>W WAT<br>WP WEA<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DF   | OM<br>PICAL<br>.ESS OTHERWISE NOTED<br>.T<br>IT<br>ATHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>F. ALL WIRING SHALL BE INSTALLED IN CONDUIT (E.M.T. OR FLEXIBLE METAL CONDUIT). MINIMUM CONDUIT SIZE S<br/>INCH. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN CEILINGS AND/OR WALLS UNLESS SPECIFICALLY NO<br/>OTHERWISE. CHANNEL EXISTING WALLS WHERE REQUIRED. WHERE WIRING RUNS ARE EXPOSED DUE TO THE<br/>NEW FINISHED CEILING, E.M.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND<br/>PERPENDICULAR WITH BUILDING LINES.</li> <li>G. TYPE MC OR AC CABLE MAY BE USED IN LIEU OF EMT IN CONCEALED SPACES WHERE PERMITTED BY CODES AN<br/>OWNER.</li> <li>H. PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BI<br/>CIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE MICIESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BC<br/>WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CEILING AREAS THESE SHALL BE REL<br/>ABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS. ACCESS PANELS ARE ALLOWED, ONLY IF APPROV<br/>ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL P<br/>SPECIFICATIONS OF ACCESS PANELS.</li> <li>J. ALL CONNECTORS AND/OR COUPLERS SHALL BE STEEL. CAST FITTINGS ARE NOT ACCEPTABLE.</li> <li>K. SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR FAMILES.</li> <li>J. ALL CONNECTORS FER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR FAMILES.</li> <li>SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR FAMILES.</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE<br/>AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT<br/>DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ul>  | SHALL BE 3/4<br>TED<br>E LACK OF A<br>ND BUILDING<br>RANCH<br>DXES, ETC.<br>OCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ul> <li>REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION WORK.</li> <li>MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION. INTEGRITY TO OTHER AF</li> <li>COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXISTING LIGHTING FIXTURES TO REMALLIGHTING FIXTURES TO BE RELOCATED, AND LIGHTING FIXTURES TO BE RELOCATED.</li> <li>CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.</li> <li>COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES WITH EXISTING LIGHTING</li> <li>REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF</li> <li>DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>H. ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW, "E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE</li> <li>PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>J. REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ul>   | REAS SHALL NOT BE DAMAGED.<br>IN, NEW LIGHTING FIXTURES,<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | $\frac{4\mathbf{T}_{5}}{3}$   | HOMERUN TO SWITCH LOCATION<br>DRY TYPE TRANSFORMER - NUMERAL DENOTES SIZE (SEE SCHEDULE)<br>MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | V VOLT<br>W WAT<br>WP WEA<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DF   | LESS OTHERWISE NOTED<br>T<br>TT<br>ATHERPROOF<br>IOLISH<br>NSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>NEW FINISHED CEILING, E.M.T. SHALL BE USED. INSTALL ALL CONDUITS IN RUNS WHICH ARE PARALLEL AND PERPENDICULAR WITH BUILDING LINES.</li> <li>TYPE MC OR AC CABLE MAY BE USED IN LIEU OF EMT IN CONCEALED SPACES WHERE PERMITTED BY CODES AN OWNER.</li> <li>PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BI CIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BC WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CEILING AREAS THESE SHALL BE REL ABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS. ACCESS PANELS ARE ALLOWED, ONLY IF APPROV ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL P SPECIFICATIONS OF ACCESS PANELS.</li> <li>ALL CONNECTORS AND/OR COUPLERS SHALL BE STEEL. CAST FITTINGS ARE NOT ACCEPTABLE.</li> <li>SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR EA PHASE CONDUCTORS ARE INSTALLED IN A SINGLE PIPE.</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ul>   | ND BUILDING<br>RANCH<br>DXES, ETC.<br>DOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL  | LIGHTING FIXTURES TO BE RELOCATED, AND LIGHTING FIXTURES TO BE REMOVED.<br>D. CLEAN, RELAMP AND REPAIR EXISTING LIGHTING FIXTURES THAT ARE TO BE RELOCATED.<br>E. COORDINATE WITH ARCHITECT TO MATCH NEW LIGHTING FIXTURES WITH EXISTING LIGHTING<br>F. REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF<br>G. DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.<br>H. ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW,<br>"E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE<br>I. PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br>ARE TO BE DEMOLISHED OR RELOCATED.<br>J. REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE<br>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.<br>FIRE ALARM SYMBOLS LIS   | FIXTURES.<br>TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  | ()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>(   | MOTOR CONNECTION<br>DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | WP WEA<br>X DEMO<br>XFMR TRAN<br>NOTE:<br>THESE ARE STANDARE<br>ON THE CONTRACT DF<br>ELECTR  | ATHERPROOF<br>IOLISH<br>INSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>OWNER.</li> <li>PROVIDE MINIMUM NO. 10 AWG CONDUCTOR SIZE IN BRANCH CIRCUIT RUNS OVER 75 FEET AND NO. 8 AWG IN BICIRCUIT OVER 120 FEET IN LENGTH FOR 120V CIRCUITS.</li> <li>PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BOW WHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CEILING AREAS THESE SHALL BE RELABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS. ACCESS PANELS ARE ALLOWED, ONLY IF APPROVA ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL PSPECIFICATIONS OF ACCESS PANELS.</li> <li>J. ALL CONNECTORS AND/OR COUPLERS SHALL BE STEEL. CAST FITTINGS ARE NOT ACCEPTABLE.</li> <li>K. SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR EAPHASE CONDUCTORS IF MORE THAN THREE PHASE CONDUCTORS ARE INSTALLED IN A SINGLE PIPE.</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ul>  | RANCH<br>DXES, ETC.<br>LOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL   | <ul> <li>F. REMOVE ALL UNUSED WIRING BACK TO PANEL AND/OR EXISTING TO REMAIN FIXTURE, RECEF</li> <li>G. DEMOLISH ALL RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, SWITCHES, ETC. THAT ARE IN<br/>COLUMNS TO BE DEMOLISHED. REMOVE ALL WIRING BACK TO NEAREST REMAINING DEVICE.</li> <li>H. ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW,<br/>"E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE</li> <li>PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>J. REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUD<br/>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ul>   | TACLE, ETC. AS APPLICABLE.<br>PARTITIONS AND/OR<br>UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN   | □ / ⊠'  | DISCONNECT SWITCH/STARTER DISCONNECT SWITCH  | XFMR TRAN<br>NOTE:<br>THESE ARE STANDARD<br>ON THE CONTRACT DF  | ANSFORMER<br>D SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ol> <li>PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BOWHERE EXISTING JUNCTION BOXES ARE LOCATED ABOVE NEW DRYWALL CEILING AREAS THESE SHALL BE RELABOVE ACCESSIBLE CEILING FOR CODE REQUIRED ACCESS. ACCESS PANELS ARE ALLOWED, ONLY IF APPROVARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL PSPECIFICATIONS OF ACCESS PANELS.</li> <li>ALL CONNECTORS AND/OR COUPLERS SHALL BE STEEL. CAST FITTINGS ARE NOT ACCEPTABLE.</li> <li>SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR EAPHASE CONDUCTORS IF MORE THAN THREE PHASE CONDUCTORS ARE INSTALLED IN A SINGLE PIPE.</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ol>   | DXES, ETC.<br>LOCATED TO<br>/ED BY THE<br>PLANS FOR<br>ACH THREE<br>SYMBOL  | <ul> <li>H. ALL RECEPTACLES, LIGHT FIXTURES, EXIT SIGNS, OUTLETS, ETC. SHOWN ON PLAN ARE NEW,<br/>"E" INDICATES EXISTING TO REMAIN, "R" INDICATES RELOCATED AND "X" INDICATES TO BE DE<br/>PATCH OVER AND PAINT TO MATCH EXISTING, ALL RECEPTACLES, FIRE ALARM DEVICES, OUT<br/>ARE TO BE DEMOLISHED OR RELOCATED.</li> <li>J. REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE<br/>RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C.</li> </ul>  | UNLESS OTHERWISE NOTED.<br>MOLISHED.<br>LETS, SWITCHES, ETC. THAT<br>IO-VISUAL CABLING IN  |   |  | THESE ARE STANDARD<br>ON THE CONTRACT DF<br>ELECTR  | RD SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR<br>RAWINGS.   |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>ARCHITECT. FOR BID PURPOSES, ASSUME JUNCTION BOX RELOCATION MUST OCCUR. SEE ARCHITECTURAL P<br/>SPECIFICATIONS OF ACCESS PANELS.</li> <li>J. ALL CONNECTORS AND/OR COUPLERS SHALL BE STEEL. CAST FITTINGS ARE NOT ACCEPTABLE.</li> <li>K. SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR EA<br/>PHASE CONDUCTORS IF MORE THAN THREE PHASE CONDUCTORS ARE INSTALLED IN A SINGLE PIPE.</li> <li>EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE<br/>AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT<br/>DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ul>   | CH THREE  | ARE TO BE DEMOLISHED OR RELOCATED. J. REMOVE ALL OBSOLETE INACTIVE OR OTHERWISE UNUSED DATA, VOICE, SECURITY AND AUE RACEWAYS AND ABOVE CEILINGS PER NEC 800.3.C. FIRE ALARM SYMBOLS LIS   | IO-VISUAL CABLING IN   |   |  | IELECTR   |  |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11  | <ul> <li>SEPARATE CONDUCTORS PER NATIONAL ELECTRICAL CODE AND PROVIDE ONE NEUTRAL CONDUCTOR FOR FAR PHASE CONDUCTORS IF MORE THAN THREE PHASE CONDUCTORS ARE INSTALLED IN A SINGLE PIPE.</li> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ul>   | SYMBOL  | FIRE ALARM SYMBOLS LIS   |  |   |  |   | ICAL DRAWING LIST  |
| E<br>1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11.<br>12.<br>12.<br>12.<br>13.<br>14.<br>14.<br>14.<br>14.<br>14.<br>14.<br>14.<br>14  | <ol> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ol>  | SYMBOL  | FIRE ALARM SYMBOLS LIS   |  |   |  | E001 ELECTRIC<br>E101 ELECTRIC<br>E102 ELECTRIC   | CAL COVER SHEET<br>CAL FIRST LEVEL DEMOLITION PLAN<br>CAL FIRST LEVEL NEW WORK PLAN  |
| 1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11   | <ol> <li>CONTRACTOR SHALL INSTALL NEW FIRE DEVICES TO EXISTING FIRE ALARM SYSTEM EQUIPMENT:</li> <li>CONTRACTOR SHALL BE REQUIRED TO PUT THE FIRE ALARM SYSTEM INTO FIRST CLASS WORKING ORDER, IN THE AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ol>  | SYMBOL  |  | T  |   |  | E700 ELECTRIC<br>E701 ELECTRIC  | CAL PANEL SCHEDULES AND RISER DIAGRAM<br>CAL PANEL SCHEDULES   |
|  | <ul> <li>AREA OR WORK INCLUDING THE FOLLOWING:</li> <li>A. ALL NEW PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES AND SMOKE/HEAT<br/>DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.</li> </ul>   |   | DESCRIPTION  |  |   |  | ILE   |  |
| 3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11.  | DETECTORS SHALL BE TESTED AND PUT IN GOOD WORKING ORDER.   | (F)<br>(S)  | AUTOMATIC HEAT DETECTOR<br>AUTOMATIC SMOKE DETECTOR - CEILING MOUNTED. "I" INDICATES IONIZATION  | N/A  | TYF<br>A  | Image: region of the second  | MOUNT SURFACE WALL MOUNTED EME  | REMARK<br>/ERGENCY LIGHTS WITH 90 MINUTE BACKUP  |
| 3.<br>4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11.<br>11.   | B. ALL NEW AC UNIT DUCT SMOKE DETECTORS SHALL BE TESTED TO INSURE PROPER OPERATION FOR   | [S <b></b>  | AND "P" INDICATES PHOTOELECTRIC<br>AUTOMATIC DUCT MOUNTED SMOKE DETECTOR WITH AIR FLOW PROBE   | N/A  | В   | B LITHONIA WSQ<br>LED-P1-40K-SR2-MVOLT-BBW-PE-E20WC-XX 1 LED UNV 20W   | SURFACE MINUTE BACKUP BAT<br>FINISH WITH ARCHIT   | UNTED EMERGENCY LIGHT FIXTURE WITH 90<br>ATTERY & INTEGRAL PHOTOCELL. COORDINATE<br>ITECT.   |
| 4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11.  | ALARM AND UNIT SHUT-DOWN. 3. CONTRACTOR SHALL VERIFY ENTIRE FIRE ALARM SYSTEM, INCLUDING ANNUNCIATION AND MAIN FIRE ALARM  |   |  |  | с   | C LITHONIA ZL1N-L48-3000LM-40K-FST 1 LED 120V 48W  | SURFACE RESTROOM LIGHT FI   | IXTURES  |
| 4.<br>5.<br>6.<br>7.<br>8.<br>9.<br>10<br>11.  | EQUIPMENT IS OPERATING IN GOOD WORKING CONDITION FOR ALL ALARM AND TROUBLE SIGNALS ASSOCIATED<br>WITH THIS AREA.   |   | FIRE ALARM MANUAL STATION  | 48" AFF UON<br>80" AFF UON   |   |  |   |  |
| 6.<br>7.<br>9.<br>10.<br>11.<br>12.  | <ol> <li>ENTIRE BUILDING IS EQUIPPED WITH SPRINKLERS.</li> <li>ALL FIRE ALARM EQUIPMENT SHALL REMAIN OPERATIONAL AND IN PLACE AS THE BUILD OUT OCCURS.</li> </ol>  |   | SUBSCRIPT NDICATES CANDELA RATING<br>COMBINATION AUDIO/VISUAL ADA STROBE DEVICE - FLUSH CEILING OR   | 80" AFF UON  |   |  |   |  |
| 7.<br>8.<br>9.<br>10.<br>11.<br>12.  | 6. IF THE CONSTRUCTION REQUIRES INTERRUPTION OF THE BUILDING FIRE ALARM SYSTEM, OBTAIN WRITTEN<br>PERMISSION FROM THE BUILDING OWNER PRIOR TO THE INTERRUPTION. THE CONTRACTOR SHALL FOLLOW ALL<br>BUILES AND REGULATIONS PROVIDED BY THE BUILDING OWNER AND ALL CODE REQUIREMENTS FOR A FIRE  | Φ Ψ   | WALL MOUNT. SUBSCRIPT INDICATES CANDELA RATING   |  |   |  | ARC-FLAS  | ,H NOTES   |
| 8.<br>9.<br>10.<br>11.   | <ul> <li>ALARM INTERRUPTION.</li> <li>CONTRACTOR SHALL PROVIDE A SEPARATE AND COMPLETE FIRE ALARM SHOP DRAWING PACKAGE TO THE FIRE</li> </ul>  | <u>ل</u> ال   | JUNCTION BOX FOR TAMPER AND FLOW SWITCH - VERIFY EXACT LOCATION<br>WITH SPRINKLER SYSTEM SUPPLIER  | N/A  | 1.1 A   | ARC-FLASH HAZARD ANALYSIS  |   | 2) ADDING ARC REDUCTION MAINTENANCE FAULT CU   |
| 8.<br>9.<br>10<br>11.<br>12.   | MARSHALL AND OBTAIN APPROVAL PRIOR TO ANY WORKFIRE ALARM DEVICES INDICATED ARE INTENDED TO<br>SHOW DESIGN INTENT ONLY. MODIFICATIONS TO EXISTING BASE BUILDING FIRE ALARM CONTROL PANEL,<br>BATTERIES, ANNUNCIATOR PANEL, ETC., SHALL BE INDICATED WITHIN FIRE ALARM SUBMITTALS PREPARED BY  | FACP  | FIRE ALARM ANNUNCIATOR PANEL   | N/A  | A. 1<br>N   | THE ARC FLASH HAZARD ANALYSIS SHALL BE PERFORMED ACCORDING TO THE IEEE 1584 EQUATIONS TH NFPA 70E' AND ITS ANNEX D FOR HAZARD ANALYSIS STUDY.  | AT ARE PRESENTED IN   | <ul> <li>a) ADD CURRENT LIMITING FUSED SWITCHES TO EQUIF</li> <li>4) REVISE SPECIFIED CIRCUIT BREAKER CONSTRUCTION</li> </ul>  |
| 9.<br>10.<br>11.<br>12.  | <ol> <li>MANUFACTURER.</li> <li>MATCH NEW FIRE ALARM EQUIPMENT WITH EXISTING. PROVIDE RACEWAY AND CONDUCTOR TYPES. QUANTITIES</li> </ol>   |   |  | N/A  | B. V<br>V   | WHEN APPROPRIATE, THE SHORT CIRCUIT CALCULATIONS AND THE CLEARING TIMES OF THE PHASE O'<br>WILL BE RETRIEVED FROM THE SHORT-CIRCUIT AND COORDINATION STUDY MODEL. ALTERNATIVE<br>PRESENTED IN THE PROPOSAL.  | VERCURRENT DEVICES 1.2 /<br>METHODS SHALL BE  | ADJUSTING<br>A. MAKE MODIFICATIONS TO EQUIPMENT INTERRUPTING   |
| 10.<br>11.<br>12.  | <ul> <li>AND SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.</li> <li>9. CONNECT NEW FIRE ALARM STRIKING STATIONS, VISUAL ALARM DEVICES, AUDIBLE ALARM DEVICES, AND</li> </ul>  |   |  |  | C. (  | CALCULATE MAXIMUM AND MINIMUM CONTRIBUTIONS OF FAULT-CURRENT SIZE.<br>1. THE MINIMUM CALCULATION SHALL ASSUME THAT THE UTILITY CONTRIBUTION IS AT A MINIMUM AND MOTOR LOAD.  | ND SHALL ASSUME NO  | ADJUSTED DOWNWARD WITHOUT THE UTILITY COMPANY'S<br>CURRENT PROVIDED REPRESENTS THE MAXIMUM POSSIBLE \  |
| 11.  | <ul><li>SMOKE/HEAT DETECTORS TO EXISTING FIRE ALARM EQUIPMENT.</li><li>10. CONTRACTOR SHALL PROVIDE NEW FIRE ALARM EQUIPMENT (PULL STATIONS, VISUAL ALARM DEVICES, AUDIBLE</li></ul>   |   | FIRE ALARM ABBREVIATIONS   |  | 2   | <ol> <li>THE MAXIMUM CALCULATION SHALL ASSUME A MAXIMUM CONTRIBUTION FROM THE UTILITY AND SHAL<br/>BE OPERATING UNDER FULL-LOAD CONDITIONS.</li> </ol>   | L ASSUME MOTORS TO  | THE BUILDING.<br>B. ADJUST RELAY AND PROTECTIVE DEVICE SETTINGS ACC<br>COORDINATION STUDY. FIELD ADJUSTMENTS SHALL BE COMF   |
| 11.  | ALARM DEVICES AND SMOKE/HEAT DETECTORS, ETC.) TO MATCH EXISTING SYSTEMS REQUIREMENTS AND MAINTAIN SYSTEM UL LISTING.   | <b>A.F.</b> F<br>A  | F.ABOVE FINISHED FLOORKWKILOWATTAMPM.C.B.MAIN CIRCUIT BI   | REAKER   | D. C<br>S   | CALCULATE THE ARC-FLASH PROTECTION BOUNDARY AND INCIDENT ENERGY AT LOCATIONS IN THE ELE SYSTEM (SWITCHBOARDS, SWITCHGEAR, MOTOR-CONTROL CENTERS, PANELBOARDS, BUSWAY, DISCON SPLITTERS) WHERE PERSONNEL COULD PERFORM WORK ON ENERGIZED PARTS.   | CTRICAL DISTRIBUTION<br>INECTING MEANS, AND   | MANUFACTURER UNDER THE STARTUP AND ACCEPTANCE TES<br>C. MAKE MODIFICATIONS TO EQUIPMENT AS REQUIRED TO A<br>DEVICE COORDINATION STUDIES  |
| 12   | 11. ALL FIRE ALARM STROBE UNITS EITHER EXISTING OR NEW, OCCURRING IN AREA OF WORK SHALL CONFORM WITH<br>THE AMERICANS WITH DISABILITIES ACT (ADA), UL, ANSI, AND NFPA STANDARDS. INSTALL UNITS WITH A MINIMUM<br>15 CANDELA AND MAXIMUM 110 CANDELA, AND SIMULTANEOUS FLASH RATE OF 1 TO 3 HZ. 15/75 CANDELA   | С.В.<br>С.  | CIRCUIT BREAKERM.H.MOUNTING HEIGCONDUITM.L.O.MAIN LUGS ONL   | ΉT<br>Y  | E. II<br>F.   | INCLUDE MEDIUM- AND LOW-VOLTAGE EQUIPMENT LOCATIONS<br>SAFE WORKING DISTANCES SHALL BE SPECIFIED FOR CALCULATED FAULT LOCATIONS BASED  | ON THE CALCULATED   | <ul> <li>D. TESTING AND ADJUSTING SHALL BE BY THE CONTRACTOR OR</li> <li>1. PERFORM EACH VISUAL AND MECHANICAL INSPECTION</li> </ul>   |
| 12   | STROBES ARE NOT ACCEPTABLE. MOUNTING HEIGHT SHALL BE 80 INCHES AFF TO THE BOTTOM OF LENS OR 6<br>INCHES BELOW CEILING TO TOP OF LENS, WHICHEVER IS LOWER. REPLACE ALL EXISTING NON-COMPLIANT UNITS<br>SHOWN ON PLAN WITH 15 CANDELA OR HIGHER STROBES AND VERIFY CIRCUIT CAPACITY. INSTALL STROBES AS  | D<br>E.A.   | DEDICATEDN.E.C.NATIONAL ELECEMPTY CONDUITN.F.S.S.NON-FUSED SAF   | TRIC CODE<br>ETY SWITCH  | G. II   | ARC-FLASH BOUNDARY, CONSIDERING INCIDENT ENERGY OF 1.2 CAL/SQ.CM.<br>INCIDENT ENERGY CALCULATIONS SHALL CONSIDER THE ACCUMULATION OF ENERGY OVER TIME<br>ARC-FLASH CALCULATIONS ON BUSES WITH MULTIPLE SOURCES. ITERATIVE CALCULATIONS SHALL TAK   | E WHEN PERFORMING<br>(E INTO ACCOUNT THE  | SPECIFICATION. CERTIFY COMPLIANCE WITH TEST PAR<br>ADJUSTABLE OVERCURRENT PROTECTIVE DEVICES.  |
|  | <ul> <li>REQUIRED TO PROVIDE THE MINIMUM ILLUMINATION LEVEL REQUIRED BY THE STANDARDS REFERENCED ABOVE.</li> <li>12. CONTRACTOR TO FIELD VERIFY EXISTING FIRE ALARM CONTROL PANEL AND DEVICE CIRCUIT AMPACITY FOR</li> </ul>   | EPO<br>E.W.C.   | EMERGENCY POWER OFF PNL PANEL<br>C. ELECTRIC WATER COOLER PC PERSONAL COM  | PUTER  |   | CHANGING CURRENT CONTRIBUTIONS, AS THE SOURCES ARE INTERRUPTED OR DECREMENTED WIT<br>CALCULATION SHALL ASSUME THAT THE UTILITY CONTRIBUTION IS AT A MINIMUM AND SHALL ASSUME A MONVERSELY, THE MAXIMUM CALCULATION SHALL ASSUME A MAXIMUM CONTRIBUTION FROM THE UTILITY  | H TIME. THE MINIMUM<br>MINIMUM MOTOR LOAD. 1.3 /<br>I'Y AND SHALL ASSUME  | ARC FLASH LABELING   |
| 13.  | <ul><li>INSTALLATION OF ADA APPROVED FIRE STROBE UNITS.</li><li>13. ALL FIRE ALARM STROBE DEVICES SHALL BE SYNCHRONIZED FOR SIMULTANEOUS FLASH WITH AREA OF WORK,</li></ul>  | F.A.<br>FAAP  | FIRE ALARM     Ø     PHASE       P     FIRE ALARM ANNUNCIATOR PANEL     P     POLE   |  | N<br>E  | MOTORS TO BE OPERATING UNDER FULL-LOAD CONDITIONS. FAULT CONTRIBUTION FROM MOTORS AND G<br>DECREMENTED AS FOLLOWS:   | GENERATORS SHALL BE   | A. APPLY ONE ARC-FLASH LABEL FOR 600-V AC, 480-V AC, AND A!<br>AS FOLLOWS, BUT NOT LIMITED TO:   |
| 14.  | <ul> <li>AND ANY OTHER SPACES VISIBLE FROM THE AREA OF WORK.</li> <li>14. ALL CEILING MOUNTED AND WALL MOUNTED FIRE ALARM DEVICES ARE TO BE WHITE WITH RED LETTERING,</li> </ul>   | FACP<br>F.S.S.  | P     FIRE ALARM CONTROL PANEL     REC.     RECEPTACLE       S.     FUSED SAFETY SWITCH     RM.     ROOM   |  | 2   | <ol> <li>FAULT CONTRIBUTION FROM SYNCHRONOUS MOTORS AND GENERATORS SHOULD BE DECAYED TO<br/>DECREMENT OF EACH AS CLOSELY AS POSSIBLE (E.G., CONTRIBUTIONS FROM PERMANENT MAGN</li> </ol>   | D MATCH THE ACTUAL<br>ET GENERATORS WILL  | <ol> <li>MOTOR-CONTROL CENTER.</li> <li>LOW-VOLTAGE SWITCHBOARD.</li> <li>SWITCHGEAR.</li> </ol>   |
| 15.  | <ul><li>15. COORDINATE ALL WORK WITH LOCAL FIRE MARSHALL'S OFFICE.</li></ul>   | G.F.I.<br>HP  | . GROUND-FAULT INTERRUPTER U.O.N. UNLESS OTHER'  | NISE NOTED   | H. <i>I</i>   | ARC-FLASH COMPUTATION SHALL INCLUDE BOTH LINE AND LOAD SIDE OF A CIRCUIT BREAKER AS FOLLOWS<br>1. WHEN THE CIRCUIT BREAKER IS IN A SEPARATE ENCLOSURE.   | S:  | <ol> <li>DISCONNECT SWITCHES</li> <li>METERING EQUIPMENT</li> <li>COMPINIATION DISCONNECT AND MOTOR CONTROLLER</li> </ol>  |
| 16   | 16. PROVIDE SMOKE DETECTOR(S) MOUNTED IN RETURN TO AC FOR ALL UNITS 2,000 CFM OR MORE. SMOKE DETECTOR SHALL BE INTERCONNECTED TO AC UNIT AND BUILDING FIRE ALARM SYSTEM. UPON SMOKE DETECTOR SENSING SMOKE AC UNIT SHALL BE DEACTIVATED AND AN ALARM SIGNAL SHALL BE SENT TO   | HP<br>H.W.H   | HTR. HOT WATER HEATER W WATT   | F  | 2<br>I.   | <ol> <li>WHEN THE LINE TERMINALS OF THE CIRCUIT BREAKER ARE SEPARATE FROM THE WORK LOCATION.</li> <li>BASE ARC-FLASH CALCULATIONS ON ACTUAL OVERCURRENT PROTECTIVE DEVICE CLEARING</li> </ol>  | TIME. CAP MAXIMUM   | <ul><li>6. COMBINATION DISCONNECT AND MOTOR CONTROLLER.</li><li>7. PANEL BOARDS.</li><li>B. PROVIDE A 6-INCH BY 4-INCH THERMAL TRANSFER TYPE L/</li></ul>  |
|  | BUILDING FIRE ALARM SYSTEM.  | J.B.  | JUNCTION BOX XFMR TRANSFORMER  |  | J. 1  | CLEARING TIME AT TWO SECONDS BASED ON IEEE 1584, SECTION B.1.2.<br>ARC-FLASH HAZARD ANALYSIS SHALL INCLUDE INCIDENT ENERGY AND FLASH PROTECTION BOUNDARY (<br>THE ANALYSIS SHALL ALSO INCLUDE ARC-FLASH INCIDENT ENERGY AND FLASH PROTECTION BOUNDARY (  | NDARY CALCULATIONS.<br>CALCULATIONS DURING  | ANALYZED. THE LABEL SHALL HAVE AN ORANGE HEADER V<br>INCLUDE THE FOLLOWING INFORMATION:  |
|  |  | NOTE:<br>THESE  | E:<br>SE ARE STANDARD SYMBOLS AND ABBREVIATIONS, AND MAY NOT ALL APPEAR ON THE CONTRACT  | DRAWINGS.  | E   | EQUIPMENT MAINTENANCE WHEN THE ARMS DEVICE IS ACTIVATED ON THE CORRESPONDING UPSTREAM C<br>EQUIPMENT THAT CAN BE FED FROM MULTIPLE SOURCES CONSIDER ALL SUCH UPSTREAM SOURCE BREAK<br>1. ARCING FAULT MAGNITUDE  | CIRCUIT BREAKER. FOR<br>ERS AND SHOW:   | <ol> <li>2. NOMINAL SYSTEM VOLTAGE</li> <li>3. FLASH PROTECTION BOUNDARY</li> </ol>  |
|  |  | 0L  |  |  |   | 2. DEVICE CLEARING TIME<br>3. DURATION OF ARC  |   | <ol> <li>HAZARD RISK CATEGORY</li> <li>AVAILABLE INCIDENT ENERGY</li> <li>WORKING DISTANCE</li> </ol>  |
|  |  |   |  |  | 4   | 4. ARC FLASH BOUNDARY  | )<br>1  | C. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD MARKIN(<br>D. LABELS SHALL BE FIELD INSTALLED BY THE STUDY SPECIAL   |
|  |  |   |  |  | 5   | 5. WORKING DISTANCE<br>6. INCIDENT ENERGY  | •   | ACCEPTANCE TESTING CONTRACT PORTION.   |
|  |  |   |  |  | 5<br>6<br>7<br>8  | <ol> <li>WORKING DISTANCE</li> <li>INCIDENT ENERGY</li> <li>HAZARD RISK CATEGORY</li> <li>ADJUSTMENTS FOR ARC FLASH ENERGY REDUCTION</li> </ol>  | 1.4 [   | DEMONSTRATION  |
|  |  |   |  |  | 5<br>6<br>7<br>8  | <ol> <li>WORKING DISTANCE</li> <li>INCIDENT ENERGY</li> <li>INCIDENT ENERGY</li> <li>HAZARD RISK CATEGORY</li> <li>ADJUSTMENTS FOR ARC FLASH ENERGY REDUCTION         <ul> <li>WHERE THE INITIAL ARC FLASH STUDY INDICATES INCIDENT ENERGY AVAILABLE HIGHER THAN ADOPTED CODE, THE CONTRACTOR SHALL PROVIDE ADDITIONAL EQUIPMENT, DEVICES, FEATUR NECESSARY TO ALLOW FOR OLIALIFIED MAINTENANCE PERSONNEL TO APPROACH THE FUR</li> </ul> </li> </ol>   | ALLOWABLE PER THE<br>RES, AND RATINGS AS  | DEMONSTRATION<br>A. ENGAGE THE ARC-FLASH STUDY SPECIALIST TO TRAIN OW<br>HAZARDS ASSOCIATED WITH WORKING ON ENERGIZED EQ<br>LABELS.  |

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- AND PROVIDE ARMS DEVICES AND
- ICTION.
- ACCOMPLISH COMPLIANCE WITH THE DOCUMENTS AND MAY NOT BE THE MAXIMUM AVAILABLE FAULT TILITY COMPANY OVER THE LIFE OF
- D SETTINGS PROVIDED BY THE VICE DIVISION OF THE EQUIPMENT SHORT-CIRCUIT AND PROTECTIVE
- D IN NETA ACCEPTANCE TESTING STS AND INSPECTIONS FOR ALL
- CONTAINING LIVE PARTS EXAMPLE

- STER FOR EACH WORK LOCATION ARC FLASH HAZARD", AND SHALL

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- EL IN THE POTENTIAL ARC-FLASH CE OF THE ARC-FLASH WARNING
- DS ASSOCIATED WITH WORKING ON ANCE WITH THE REQUIREMENTS OF LACES, SHALL BE PROVIDED IN THE UCATION UNITS (CEUS) BY THE

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![](_page_32_Figure_54.jpeg)

![](_page_32_Figure_55.jpeg)

![](_page_33_Figure_0.jpeg)

7. ALL CONDUITS AND WIRES FEEDING EXISTING EQUIPMENT TO REMAIN, SHALL NOT BE DEMOLISH.

9. WHERE EXISTING EQUIPMENT IS TO BE RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND RE-INSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACE OR REPAIR TO THE SATISFACTION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. ALL FIXTURES SHALL BE CLEAN, BURNED OUT

10. WHERE AREAS OR EQUIPMENT ARE NOT SPECIFICALLY SCHEDULED ON THE DOCUMENT TO BE DEMOLISHED, RELOCATED, OR ALTERED UNDER THE CONTACT DOCUMENT, ELECTRICAL EQUIPMENT SHALL REMAIN AS PREVIOUSLY PERMITTED AND INSTALLED. THE CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE ELECTRICAL SERVICE OR NORMAL AND STAND BY POWER EQUIPMENT AND CIRCUITS, AS WELL AS APPLICABLE FIRE ALARM, SECURITY, AND OTHER NECESSARY ELECTRICAL FEATURE REQUIRED FOR THE CONTINUED OPERATION OF EXISTING AREA AND EQUIPMENT DESCRIBED THROUGHOUT THE

11. CONTRACTOR SHALL PROTECT EXISTING LED LIGHTS DURING CONSTRUCTION FROM DUST AND DAMAGE.

![](_page_33_Figure_18.jpeg)

![](_page_33_Figure_19.jpeg)

![](_page_34_Figure_0.jpeg)

![](_page_34_Figure_8.jpeg)

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|          | © GRIMM AND PARKER ARCHITECTURE, INC. |
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|-----------|----------|----------------|----------|----------|----------|-----------|--------------|------------------------|----------------------|--------------|--------------------|------------|----|----------------|------------|-----------------------|------------|
| 12        | 20 208   | 3              |          | 4        |          |           | -<br>-       | IV                     | 1200A                |              | (EXIS              | STING      | )  | SURF           | ACE        |                       |            |
|           |          |                | Т        | YPE LEGI | END      |           |              |                        |                      |              |                    |            |    |                |            |                       | N          |
| R         | RECEPT   | ACLES          |          |          | K        |           | FXISTIN      |                        |                      |              |                    |            |    |                |            |                       |            |
| H         | ELEC. H  | EAT            |          |          | C        | )         | OTHER        |                        |                      |              |                    |            |    |                |            |                       |            |
| A         | A/C LOA  | VD             |          |          | V        | 1         | ELEVATO      | DRS                    |                      |              |                    |            |    |                |            |                       |            |
| M         |          | S<br>2Y        |          |          | C        | ;         |              |                        |                      |              |                    |            |    |                |            |                       |            |
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| ð         |          | SERVED         | )        | F        | - N      |           | CON          | TRIP                   | P                    | (VA)         | [표] ( <sup>)</sup> | /A)        | Р  | TRIP           | CON        | N                     |            |
| 1         |          | SPACE          |          |          |          |           |              |                        | 1                    |              | A                  |            | 1  |                |            |                       |            |
| 3         |          | SPACE          |          |          |          |           |              |                        | 1                    |              | В                  |            | 1  |                |            |                       |            |
| 5         |          | SPACE          |          |          |          |           |              |                        | 1                    |              | C                  |            | 1  |                |            |                       |            |
| 9         |          | SPACE<br>SPACE |          |          |          |           |              |                        | 1                    |              | B                  |            | 1  |                |            |                       |            |
| 11        |          | SPACE          |          |          |          |           |              |                        | 1                    |              | C                  |            | 1  |                |            |                       |            |
| 13        | _        | SPACE          |          |          |          |           |              |                        | 1                    |              | Α                  |            | 1  |                |            |                       |            |
| 15        |          | SPACE          |          |          |          |           |              |                        | 1                    |              | B                  |            | 1  |                |            |                       |            |
| 19        |          | SPACE          |          |          |          |           |              |                        | 1                    |              | A                  |            | 1  |                |            |                       |            |
| 21        |          |                |          |          |          |           |              |                        |                      | 3314         | В                  |            |    |                | SEE        | SEE                   |            |
| 23        |          | EX. RTU UI     | NIT      | Ν        | Λ        | EX.       | EX.          | 100A                   | 3                    | 3314         | C                  |            | 3  | 100A           | RISER      | RISER                 |            |
| 25<br>27  |          |                |          |          |          |           |              |                        |                      | 3314<br>8166 | B                  |            |    |                |            |                       |            |
| 29        |          |                |          |          |          |           |              |                        |                      | 8166         | C                  |            |    |                |            |                       |            |
| 31        |          | EX. RTU U      | NIT      | Ν        | Λ        | EX.       | EX.          | 150A                   | 3                    | 8166         | Α                  |            | 3  | 150A           | SEE        | SEE                   |            |
| 33        |          |                |          |          |          |           |              |                        |                      |              | B                  |            | -  |                | RISER      | RISER                 |            |
| 37        |          |                |          |          |          |           |              |                        |                      |              | A                  |            |    |                |            |                       |            |
| 39        |          |                |          |          |          |           |              |                        |                      | 8166         | В                  |            |    |                |            |                       |            |
| 41        |          |                |          |          |          |           |              |                        |                      | 8166         | С                  |            |    |                |            |                       |            |
| 43        |          | EX. RTU U      | NIT      | Ν        | Л        | EX.       | EX.          | 150A                   | 3                    | 8166         | A                  |            | 3  | 400A           | SEE        | SEE                   |            |
| 47        |          |                |          |          |          |           |              |                        |                      |              | C                  |            |    |                | NOEN       | TRIOER                |            |
| 49        |          |                |          |          |          |           |              |                        |                      |              | Α                  |            |    |                |            |                       |            |
| 51        |          |                |          |          |          |           |              |                        |                      |              | В                  |            |    |                |            |                       |            |
| 53        |          |                |          |          |          | SEE       | SEE          |                        |                      |              |                    |            |    |                | SEE        | SEE                   |            |
| 57        |          | EX. PANEL      | . P1     |          |          | RISER     | RISER        | 400A                   | 3                    |              | B                  |            | 3  | 150A           | RISER      | RISER                 |            |
| 59        |          |                |          |          |          |           |              |                        |                      |              | С                  |            |    |                |            |                       |            |
| 61        |          |                |          |          |          |           |              |                        | -                    |              | A                  |            |    |                |            |                       |            |
| 65        |          |                |          |          |          |           |              |                        |                      |              | С                  |            |    |                |            |                       |            |
| 67        |          |                | 0<br>م   |          |          | SEE       | SEE          | 200 4                  |                      |              | A                  |            | 2  | 150 4          | EV         | EV                    |            |
| 69        |          | EA. FANEL      | 2        |          |          | RISER     | RISER        | 2004                   |                      |              | В                  |            | 3  | 130A           | EA.        | EA.                   |            |
| 71        |          |                |          |          |          |           |              |                        |                      |              |                    |            |    |                |            |                       |            |
| 75        |          |                |          |          |          | _         |              |                        |                      | 9607         | B                  |            | 1  |                |            |                       |            |
| 77        | NEW A    | CFD AIR CO     | MPRESSOR | . N      | Л 1      | 4#3       | 1-1/4"       | ~200A                  | 3                    | 9607         | С                  |            | 1  |                |            |                       |            |
| 79        |          | SDACE          |          |          |          |           |              |                        | 1                    | 9607         | A                  |            | 1  |                |            |                       |            |
| 83        |          | SPACE<br>SPACE |          |          |          |           |              |                        | 1                    |              | C                  |            | 1  |                |            |                       |            |
| I         |          |                |          |          |          |           | 1            | 1                      |                      |              | 1 1                |            |    |                |            |                       | 1          |
|           |          |                |          |          |          | A         | В            | C                      | 1                    |              | ٦                  |            |    |                |            |                       |            |
|           |          |                | CO       | NNECTED  | LOAD (VA | ) 29255   | 29200        | 29200                  |                      | 07700        |                    |            |    |                |            |                       |            |
|           |          | LOAD           | EX.      | EX.      | EX.      | EX.       | EX.          | EX.                    |                      | CONN         | SIZI               | ١G         | S  | SIZING         |            | NOTES                 |            |
|           | E        | (VA)           | PNL P1   | PNL P2   | PNL P3   | PNL P4    | PNL P5       | PNL P                  | 7                    | LD(VA)       | FACT               | OR         | LO | AD (VA)        | Ъ          | * 1ST 10K             | (VA        |
|           |          | 0              | 12287    | 0        | 7500     | 9202      | 9000<br>7200 | 0                      |                      | 30489        | 125                | %          |    | 38111<br>21120 | _          | ** SIZE. F            | AC<br>SIN/ |
| ELEC. HEA | T        | 0              | 3994     | 0        | 0        | 0         | 0            | 0                      |                      | 3994         | 100                | %          |    | 3994           | ***        | **** - 1ST            | 30         |
| VC LOAD   |          | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            | 100                | %          |    | 0              | ***        |                       |            |
| IOTORS    |          | 84444          | 3090     | 0        | 21904    | 3699      | 7819         | 0                      |                      | 120955       | 100                | %          | 1  | 20955          | _          | + SIZE. F             | AC         |
|           | RS       | 0              | 0        | 0        | 0        | 0         | 0            | 0                      | _                    | 0            | 100                | %          |    | 0              | +          | ++ SIZE F<br>+++ SIZE | FA         |
| OF ELEV   | -<br>!   | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            |                    | -          |    | -              | J<br>-     | 5.26                  |            |
| ITCHEN E  | Q        | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            | 100                | %          |    | 0              | **         |                       |            |
|           |          | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            | 100                | <u>ж</u> 1 |    | 0              | ]          |                       |            |
| OF COO    | K TOP    | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            | 100                | /U         |    | U              | _ ++       |                       |            |
| LOTHES    | DRYER    | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            | 100                | %          |    | 0              | +++        |                       |            |
| OF DRYE   | RS       | 0              | 0        | 0        | 0        | 0         | 0            | 0                      |                      | 0            |                    |            |    |                | 7          | (GFCI) PF             | 20         |
|           |          | 0              | 0        | 0        | 0        | 0<br>8427 | 0            | 0                      |                      | 0<br>8427    | 100                | %          |    | U<br>8427      | -          | (PDLK) Pl             | RO         |
| THER      |          | 0              | 67682    | 32152    | 0        | 86970     | 0            | 13000                  | )                    | 199804       | 100                | %          | 1  | 99804          | 1          | (SI) PRU              | VIL        |
| ARGEST    | CONNECTE | D MOTOR        | 1        | •        |          |           | 1            |                        |                      |              | 25%                | 6          |    | 0              | 1          |                       |            |
|           |          |                |          |          |          |           | CONNEC       |                        | (VA)                 | 395908       | -                  |            | 3  | 92410          | SIZING T   | OTAL (VA)             |            |
|           |          |                |          |          |          | (         |              | υ ΑΜΡΑΟΠ<br>ΙΔΝΠ ΤΠΤΔΙ | ι Υ (A)<br>_ (\/Δ)   | 392410       | -                  |            | 1  | UUY.ZZ         | J SIZING A | MPACITY               | (A)        |
|           |          |                |          |          |          |           | DEMAN        |                        | - ( • / ·)<br>[Y (A) | 1089.22      | 1                  |            |    |                |            |                       |            |

![](_page_35_Figure_7.jpeg)

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![](_page_35_Figure_14.jpeg)

OAD TYPE

RECEPTACLES

LEC. HEAT

LIGHTING

A/C LOAD

MOTORS

# OF ELEV

ELEVATORS

KITCHEN EQ

# OF KITCH EQ

COOKTOP RANGE

CLOTHES DRYER 0

LARGEST CONNECTED MOTOR

# OF COOK TOP

# OF DRYERS

LAUNDRY

EXISTING

OTHER

(VA)

0

0

0

0

0

0

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0

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## C. IN ACCORDANCE TO NEC 220-20 MULTANEOUS LOAD 3000 VA @ 100%, NEXT 117.000 VA @ 35% C. IN AC C. IN AC

OVIDE GND FAULT CIRCUIT INTERRUPTER OVIDE PADLOCK IDE SHUNT TRIP

| 3000 VA @ 100%, NEXT 117,000 VA @ 35 |
|--------------------------------------|
| ABOVE 120,000 @ 25%                  |
| C. IN ACCORDANCE TO NEC 620          |
| C. IN ACCORDANCE WITH NEC 220.55     |
| AC. IN ACCORDANCE WITH NEC 220.54    |
|                                      |

![](_page_35_Picture_19.jpeg)

FACTOR LOAD (VA)

100% 0

 100%
 0

 100%
 0

100% 0

100% 0

100% 0

\*\*\*\* 0

32152

0

32152 SIZING TOTAL (VA)

89.25 SIZING AMPACITY (A)

0 100% 0 ++

100%

25%

0 100% 0

125%

LD(VA)

0

0

0

0

0

0 0

0

0

0

0

32152

CONNECTED TOTAL (VA) 32152

DEMAND TOTAL (VA) 32152 DEMAND AMPACITY (A) 89.25

CONNECTED AMPACITY (A) 89.25

0

Project Type: Exterior Lighting Zone Construction Site: Allowed Exterior Lighting Power

## Area/Surface Category

Egress Door (Other door (not main entry))

(a) Wattage tradeoffs are only allowed betw (b) A supplemental allowance equal to 600 Proposed Exterior Lighting Power Fixture ID : Description / Lar

Egress Door ( Other door (not main entry) LED: B: Surface mounted: Other:

## Exterior Lighting PASSES Exterior Lighting Compliance State Compliance Statement: The proposed e building plans, specifications, and other

systems have been designed to meet the applicable mandatory requirements listed Name - Title

Project Title: Data filename: K:\219\21903801\Electrica

13

![](_page_35_Figure_35.jpeg)

|          | EX.        | EX.       |                   | 0     | EX. LOAD           | 32 | 41                |        |        |               |          |           |        | 1801   | C 100     | 1 20     | )A 3      | 3/4" 2     | 2#12      | 3 N       | 1            | MOTORIZ    |
|----------|------------|-----------|-------------------|-------|--------------------|----|-------------------|--------|--------|---------------|----------|-----------|--------|--------|-----------|----------|-----------|------------|-----------|-----------|--------------|------------|
|          | EV         | EV        |                   |       | EX LOAD            | 34 |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
|          | ⊏∧.        | EA.       |                   |       | EX. LOAD           | 36 |                   |        |        |               | A        | В         | С      | TOTAL  | -         |          |           |            |           |           |              |            |
|          | EV         | EV        |                   |       | EXIOAD             | 38 |                   |        | CONNEC | TED LOAD (VA) | 28465    | 31185     | 25500  | 85150  |           |          |           |            |           |           |              |            |
|          | EA.        | EA.       |                   |       | EX. LOAD           | 40 |                   | LOAD   | EX.    |               |          |           | CONN   | SIZING | SIZING    |          | NO        | TES        |           |           |              |            |
|          |            |           |                   |       | SPACE              | 42 | LOAD TYPE         | (VA)   | PNL P6 |               |          |           | LD(VA) | FACTOR | LOAD (VA) |          | * 15      | ST 10KVA   | . @ 100%  | , REMAINI | NG @ 50%     |            |
|          |            |           |                   |       |                    |    | LIGHTING          | 7254   | 5033   |               |          |           | 12287  | 125%   | 15359     |          | ** 5      | SIZE. FAC  | . IN ACC  | ORDANCE   | TO NEC 220   | -20        |
|          |            |           |                   |       |                    |    | RECEPTACLES       | 4440   | 11660  |               |          |           | 16100  | *      | 13050     |          | ***       | NON-SIM    | ULTANE    | OUS LOAD  |              |            |
|          |            |           |                   |       |                    |    | ELEC. HEAT        | 3994   | 0      |               |          |           | 3994   | 100%   | 3994      | ***      | ****      | ' - 1ST 30 | 00 VA @   | 100%, NE  | XT 117,000 V | /A @ 35%   |
|          |            |           |                   |       |                    |    | A/C LOAD          | 0      | 0      |               |          |           | 0      | 100%   | 0         | ***      |           |            |           |           | ABOVE 120,   | ,000 @ 25% |
|          | 0750       |           |                   |       |                    |    | MOTORS            | 340    | 2750   |               |          |           | 3090   | 100%   | 3090      |          | + S       | JZE. FAC.  | IN ACCC   | ORDANCE   | TO NEC 620   |            |
| N        | IOTES      |           |                   |       |                    |    |                   |        | 0      |               |          |           |        |        |           |          | ++        | SIZE FAC   | . IN ACC  | ORDANCE   | WITH NEC 2   | 220.55     |
| *        | 1ST 10K    | VA @ 100  | )%, REMA          | INING | @ 50%              |    | ELEVATORS         | 0      | 0      |               |          |           | 0      | 100%   | 0         | +        | ++-       | + SIZE FA  | C. IN ACC | CORDANC   | E WITH NEC   | 220.54     |
| *1       | * SIZE. FA | AC. IN AC | CORDAN            | CE TO | NEC 220-20         |    | # OF ELEV         | 0      | 0      |               |          |           | 0      |        |           | _        |           |            |           |           |              |            |
| *:       | ** NON-S   | IMULTAN   | IEOUS LO          | AD    |                    |    | KITCHEN EQ        | 0      | 0      |               |          |           | 0      | 100%   | 0         | **       | ~ P       | ROVIDE     | NEW CIR   | CUIT BRE  | AKER         |            |
| *:       | *** - 1ST  | 3000 VA   | @ 100%            | NEXT  | 117 000 VA @ 35%   |    | # OF KITCH EQ     | 0      | 0      |               |          |           | 0      |        |           | _        |           |            |           |           |              |            |
|          | 101        | 0000 111  | <b>W</b> 10070, 1 |       | 0.VE 120 000 @ 25% |    | COOKTOP RANGE     | 0      | 0      |               |          |           | 0      | 100%   | 0         | ++       |           |            |           |           |              |            |
|          | 0.75 54    | o         |                   |       |                    |    | # OF COOK TOP     | 0      | 0      |               |          |           | 0      |        |           |          |           |            |           |           |              |            |
| +        | SIZE. FA   | C. IN AC  | CORDAN            | EIO   | NEC 620            |    | CLOTHES DRYER     | 0      | 0      |               |          |           | 0      | 100%   | 0         | +++      |           |            |           |           |              |            |
| +        | + SIZE F/  | AC. IN AC | CORDAN            | CE WI | TH NEC 220.55      |    | # OF DRYERS       | 0      | 0      |               |          |           | 0      |        |           | _        | (GF       | -CI) PRO\  | /IDE GNE  | ) FAULT C | IRCUIT INTE  | RRUPTER    |
| +        | ++ SIZE F  | FAC. IN A | CCORDA            | NCE V | VITH NEC 220.54    |    | LAUNDRY           | 0      | 0      |               |          |           | 0      | ****   | 0         |          | ,<br>(PE  | JLK) PRO   | VIDE PAC  | DLOCK     |              |            |
|          |            |           |                   |       |                    |    | EXISTING          | 0      | 0      | -             |          |           | 0      | 100%   | 0         |          | (ST       | i) provid  | E SHUN    | t trip    |              |            |
| ~        |            | E NEW C   |                   | REAKE | R                  |    | OTHER             | 64962  | 2720   |               |          |           | 67682  | 100%   | 67682     |          |           |            |           |           |              |            |
|          | T NO VID   |           |                   |       | - 1 1              |    | LARGEST CONNECTER | DMOTOR | •      |               |          |           |        | 25%    | 0         |          |           |            |           |           |              |            |
|          |            |           |                   |       |                    |    |                   |        |        | CONN          | ECTED TO | OTAL (VA) | 103153 |        | 103175    | SIZING T | OTAL (VA) | )          |           |           |              |            |
|          |            |           |                   |       |                    |    |                   |        |        | CONNEC        | TED AMP  | ACITY (A) | 286.32 |        | 286.38    | SIZING A | MPACITY   | (A)        |           |           |              |            |
|          |            |           |                   |       |                    |    |                   |        |        | DI            | EMAND TO | OTAL (VA) | 103175 |        |           |          |           | ( )        |           |           |              |            |
|          |            |           |                   |       |                    |    |                   |        |        | DEM           | AND AMP  | ACITY (A) | 286.38 |        |           |          |           |            |           |           |              |            |
| ((       | GECI) PR   | OVIDE G   | ND FAULT          |       |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
| (        | סם (א וחכ  |           |                   | •     |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
| ()<br>/( |            |           |                   |       |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
| (;       | 51) PROV   |           |                   |       |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
|          |            |           |                   |       |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
|          |            |           |                   |       |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |
| . (V     | A)         |           |                   |       |                    |    |                   |        |        |               |          |           |        |        |           |          |           |            |           |           |              |            |

5

EX. LOADS

EX. LOADS

EX. LOADS

EX. LOADS

| oftware Ve | ersion 4.0.8.2 |             |
|------------|----------------|-------------|
| .ighting   | Compliance     | Certificate |

EX. LOAD

EX. LOAD

EX. LOAD

EX. LOAD

EX. LOAD

24

26

28

30

| 2015 1600   |   |  |  |                                  |
|---|---|--|--|----------------------------------|
| Alteration<br>2 (Light industrial area with limited nig   | uhttime use)  |  |  |                                  |
| Owner/Agent:  | Designer/C  | contractor:  |  |                                  |
| B<br>Quantit  | C<br>ty Allowed<br>Watts / Unit   | D<br>Tradable<br>Wattage   | Allowe<br>(B   | E<br>ed Watts<br>X C)            |
| 4 ft of do  | or 20   | Yes  |  | 80                               |
| Tota<br>ween tradable areas/surfaces.<br>watts may be applied toward compliance   | Total Trada<br>Total A<br>I Allowed Supplemer<br>of both non-tradable                     | ble Watts (a) =<br>lowed Watts =<br>ital Watts (b) =<br>and tradable a | =<br>=<br>=<br>areas/surfac                                    | 80<br>80<br>600<br>xes.          |
| ۵   | В   | С  | D  | F                                |
| mp / Wattage Per Lamp / Ballast   | Lamps/<br>Fixture   | # of<br>Fixtures   | Fixture<br>Watt.   | (C X D)                          |
| ) 4 ft of door width): Tradable Wattag  |   |  |  |                                  |
| <u>) 4 it of door width). Tradable Wattage</u>  | 2   |  |  |                                  |
|   | <u>1</u>  | 4  | 20   | 80                               |
|   | 2<br>1<br>Total Tra   | 4<br>adable Propos   | 20<br>ed Watts =   | <u>80</u><br>80                  |
| ement<br>exterior lighting alteration project repr<br>calculations submitted with this perm<br>e 2015 IECC requirements in COM <i>che</i><br>d in the Inspection Checklist.             | 2<br>Total Tra<br>esented in this doo<br>it application. The<br><i>ck</i> Version 4.0.8.2 | 4<br>adable Propos<br>cument is co<br>proposed ex<br>and to comp       | 20<br>eed Watts =<br>nsistent w<br>kterior ligh<br>oly with an | 80<br>80<br>ith the<br>ting<br>y |
| ement<br>ement<br>xterior lighting alteration project repr<br>calculations submitted with this perm<br>e 2015 IECC requirements in COM <i>che</i><br>d in the Inspection Checklist.     | 2<br>Total Tra<br>esented in this doo<br>it application. The<br><i>ck</i> Version 4.0.8.2 | 4<br>adable Propose<br>cument is co<br>proposed ex<br>and to comp<br>  | 20<br>ed Watts =<br>nsistent w<br>kterior ligh<br>oly with an  | 80<br>80<br>ith the<br>ting<br>y |
| ement<br>xterior lighting alteration project repr<br>calculations submitted with this perm<br>e 2015 IECC requirements in COM <i>che</i><br>d in the Inspection Checklist.<br>Signature | 2<br>Total Tra<br>esented in this doo<br>it application. The<br><i>ck</i> Version 4.0.8.2 | 4<br>adable Propos<br>proposed ex<br>and to comp<br>Date               | 20<br>eed Watts =<br>nsistent w<br>kterior ligh<br>oly with an | 80<br>80<br>ith the<br>ting<br>y |

|  | M <i>check</i> S<br>terior L   | oftware V<br>ighting   | ersion 4.<br>Comp  | 0.8.2<br>liance (  | Certifi  | cate                                | 9                     |
|--|--|--|--|--|--|-------------------------------------|-----------------------|
|  |  |  |  |  |  |                                     |                       |
| Project Information  |  |  |  |  |  |                                     |                       |
| Energy Code:<br>Project Title:   | 2  | 015 IECC   |  |  |  |                                     |                       |
| Project Type:  | ŀ  | Alteration   |  |  |  |                                     |                       |
| Construction Site:   |  | Owner/Agent:   |  | Designer/  | Contractor:                                      |                                     |                       |
| Allowed Interior Lig   | hting Power  |  |  |  |  |                                     |                       |
|  | A<br>Area Categ  | jory   |  | B<br>Floor Area<br>(ft2)   | C<br>Allowed<br>Watts / ft2                      | Allov<br>)                          | D<br>wed Wa<br>B X C) |
| -Vehicle Storage Wareho  | use (Warehouse:Me  | dium/Bulky/Pallet Mate   | erial Storage):  |  |  |                                     |                       |
| 2-Restroom (Common Spa   | ace Types:Restrooms  | :)   |  | 293  | 0.98   |                                     | 287                   |
|  |  |  |  | т  | otal Allowed Wat                                 | its =                               | 287                   |
| Area Category Exemp  | tion Qualification   | S  | # E:   | 4  | -  | 1.41.547.77                         |                       |
|  | Activity Area  |  | # ۲۱×<br>Pre-∆lt   | Ropl /Addad  | l ota  | II # Watt                           | S                     |
| Vehicle Storage Wareh<br>Narehouse:Medium/Bu<br>Exemption: Less than 1   | <u>ouse (</u><br>Ilky/Pallet Material<br>0% fixture replaceme  | Storage 21114<br>ent.  | 176  | 0  | 9856.000   | 9                                   | 856.000               |
| Fixture ID :   | Description / Lar  | A<br>np / Wattage Per L<br>  | .amp / Ballast<br>et Material Stora  | в<br>Lamps/<br>Fixture<br>ge 21114 sq.ft.): E:                     | # of F<br>Fixtures                               | D<br>Fixture<br>Watt.               | (C X [                |
| Restroom ( Common Sp   | pace Types:Restro  | <u>oms 293 sq.ft.)</u>   |  | 1  | 4  | 48                                  | 19                    |
|  |  |  |  | Y  | Total Proposed                                   | d Watts =                           | 19                    |
| nterior Lighting PA  | SSES   |  |  |  |  |                                     |                       |
| nterior Lighting Co<br>Compliance Statement:<br>building plans, specifica<br>systems have been des<br>applicable mandatory r | mpliance Stater<br>The proposed int<br>ations, and other c<br>signed to meet the<br>equirements listed | nent<br>erior lighting altera<br>alculations submitt<br>2015 IECC require<br>I in the Inspection C | ition project repr<br>ed with this pern<br>ments in COM <i>che</i><br>Checklist. | esented in this doo<br>nit application. The<br>eck Version 4.0.8.2 | cument is cons<br>proposed inte<br>and to comply | istent wi<br>Prior light<br>With an | th the<br>ting<br>ly  |
| Name - Title   |  | Signatu  | ıre  |  | Date   |                                     |                       |
|  |  |  |  |  |  |                                     |                       |
| Project Title:<br>Data filename: K:\219\   | 21903801\Electric  | al\Comcheck\ComC   | heck.cck   |  | Re   | port date<br>Page                   | e: 11/00<br>1 of      |
| 5  | 4  |  | 3  |  |  | 2                                   |                       |

![](_page_35_Figure_40.jpeg)

|  |                       | © GRIMM AND PARKER ARCHITECTURE, INC. | 17   | 10   | 6 15   | 14  | 13   | 12 11  | 10  | 9 8   | 7  | 6   | 5   | 4 3  | 2   |
|--|-----------------------|---------------------------------------|--|--|--|---|--|--|---|---|--|---|---|--|---|
|  |                       |                                       | VOLTAGE PHASE<br>120 208 3   | EXIST<br>WIRE 4  | ING PANELBOARD SCHEDUL<br>MCB (A) MLO (A) A<br>- 100A EXIS   | E<br>IC MOUNTING MANUFA<br>STING SURFACE -  | AC. MDL # FED FROM<br>- REFER TO RISER   | VOLTAGE PHASE<br>120 208 3   | EXISTING PANELBOARD SCHEDUL         WIRE       MCB (A)       MLO (A)       A         4       -       400A       EXIS         TYPE LEGEND       -       400A       EXIS  | C MOUNTING MANUFAC. MDL #<br>TING SURFACE   | P4 SEC 1<br>FED FROM VOLTA<br>REFER TO RISER 120   | GE PHASE WIF<br>208 3 4<br>TYPE LE  | EXISTING PANELBOARD SCHEDULE         RE       MCB (A)       MLO (A)       AIC         -       100A       EXISTING   | MOUNTING MANUFAC. MDL # SURFACE  | P4 SEC 2<br>FED FROM<br>REFER TO RISER  |
|  |                       |                                       | L LIGHTING<br>R RECEPTACLES<br>H ELEC. HEAT  | TYPE LEGEND K<br>K<br>E<br>O                               | KITCHEN EQ 1. PROVIDE NEW<br>EXISTING<br>OTHER   | NOTES<br>CIRCUIT BREAKER  |  | L LIGHTING<br>R RECEPTACLES<br>H ELEC. HEAT<br>A A/C LOAD<br>M MOTORS  | K     KITCHEN EQ     1. PROVIDE NEW (       E     EXISTING     2. VERIFY THAT E       O     OTHER     BREAKER LOCA       V     ELEVATORS       C     COOKTOP RANGE  | CIRCUIT BREAKER AT INDICATED BREAKER SPACE AS SCHEDULED.<br>KISTING CIRCUIT BREAKER IS A "SPARE" BEFORE CONNECTING NEW<br>TION.   | LOAD AT INDICATED  | LIGHTING<br>RECEPTACLES<br>ELEC. HEAT<br>A/C LOAD<br>MOTORS                         | K     KITCHEN EQ     1. PROVIDE NEW CIRCUI       E     EXISTING       O     OTHER       V     ELEVATORS       C     COOKTOP RANGE   |  |   |
|  | _M                    |                                       | A A/C LOAD<br>M MOTORS<br>W LAUNDRY<br># ITEM  | V<br>С<br>О<br>Ш (1)<br>С                                  | ELEVATORS<br>COOKTOP RANGE<br>CLOTHES DRYER<br>CLOTHES DRYER<br>CKT. BRK LOAD W LC   | <br>AD CKT. BRK اج سے دی  | ш ITEM ж   | W LAUNDRY<br># ITEM<br>SERVED  | D     CLOTHES DRYER       B     B                                       | AD CKT. BRK LA RAN AN A  | ITEM #. ¥.<br>SERVED SERVED  | ITEM<br>SERVED  | D     CLOTHES DRYER       H     SH       SH     SH       SH <t< td=""><td>CKT. BRK     Ling     BRK     Ing       P     TRIP     OO     BUN     SI</td><td>TEM #.</td></t<>  | CKT. BRK     Ling     BRK     Ing       P     TRIP     OO     BUN     SI   | TEM #.  |
|  |                       |                                       | SERVED<br>1<br>3 ROLLUP DOOR   | M 1  | Image: Non-State         TRIP         P         (VA)         VH - (VA)   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   | SERVED 2<br>- SPARE 4  | 1<br>3<br>EX. LOADS<br>5<br>7<br>0<br>EX. LOADS  | O         EX.         EX.         50A         3         3603         A         36           O         EX.         EX.         50A         3         3603         C         36           3603         C         36         3603         A         36         3603         C         36           3603         A         36         3603         A         36         3603         A         36           O         EX         EX         50A         2         3603         A         36   | 03     03     03     03     03     03     00       03     33     50A     EX.     EX.     0  | 2         43           EX. LOADS         4           6         47           8         49           51         51   | EX. LOADS<br>EX. LOADS<br>EX. LOADS   | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | 1         20A         EX.         EX.         O         EX.           1         20A         EX.         EX.         R         EX.         Image: Constraint of the second | LOADS44COPIER46LOADS48LOADS50LOADS52  |
|  |                       |                                       | 5<br>7<br>9 ROLLUP DOOR<br>11  | M 1  | 3#10         3/4"         ~20A         3         1801         A           1801         C         1801         A         1801         A   | <u>)</u><br><u>)</u><br><u>)</u><br><u>)</u><br><u>3</u><br><u>20A</u>  | - SPARE 10   | 9 EX. LOADS<br>11<br>13<br>15 EX. LOADS<br>17  | 0     EX.     EX.     50A     3     3603     B     36       0     EX.     EX.     50A     3     3603     C     36       0     EX.     EX.     50A     3     3603     A     42       0     EX.     EX.     50A     3     3603     B     42       3603     C     42       3603     C     42       3603     C     42   | 13     3     50A     EX.     EX.     0       13     13     60A     EX.     EX.     0       13     3     60A     EX.     EX.     0   | EX. LOADS 10 51<br>12 53<br>EX. LOADS 16 57<br>18 59   | EX. LOADS<br>EX. OVEN<br>EX. LOADS  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | I         20A         EX.         EX.         O         EX.           1         20A         EX.         EX.         O         EX.  | LOADS         52           LOADS         54           LOADS         56           LOADS         58           LOADS         60  |
|  | L                     |                                       | 13           15           17           19  | TEM M 1  | 4#8 3/4" ~80A 3 3699 A 3699 B 3699 C 0 4   | J         3         20A         -         -           J         3         20A         -         -           J000         1         20A         3/4"         2#12  | -         SPARE         14           -         SPARE         16           18         18         18   | 19         EX. LOADS           21         EX. LOADS           23         EX. LOADS           25         EX. PUMP           27         EX. PUMP   | O         EX.         EX.         20A         1         720         A         0           O         EX.         EX.         20A         1         720         B         0           O         EX.         EX.         20A         1         720         B         0           O         EX.         EX.         20A         1         720         B         0           O         EX.         EX.         70A         3         3362         C         0           O         EX.         EX.         70A         3         3362         A         11  | 1     3     100A     EX.     EX.     EX.     EX.     EX.       77     1     20A     3/4"     2#10+G     1     L       77     1     20A     3/4"     2#10+G     1     L  | 20         61           PANEL P4 SEC 2         22         63           24         65         65           LIGHTING         26         28   | EX. LOADS   | E     EX.     EX.     20A     1     720     A     720       O     EX.     EX.     20A     1     720     A     720       O     EX.     EX.     30A     2     2080     B     720       A     B     C     TOTAL  | 1         20A         EX.         EX.         O         EX.           1         20A         EX.         EX.         R         EX. REC           1         20A         EX.         EX.         O         EX. REC           1         20A         EX.         EX.         O         EX. REC  | LOADS     62       EPTACLES     64       LOADS     66   |
|  |                       |                                       | 21         SPARE           23         25           27         SPARE  | -  | 20A 3 0 B 10<br>0 C 10<br>20A 3 0 B 0  | J0         1         20A         3/4"         2#12           00         1         20A         3/4"         2#12           J         1         30A         -         -           0         1         30A         -         -   | R       RETRACTABLE RECEPTACLES       22         R       RETRACTABLE RECEPTACLES       24         -       SPARE       26         -       SPARE       28                                    | 29         SPARE           31         SPARE           33         SPARE           35         37           37         NEW PLYMOVENT SYST   | -         -         -         20A         -         0         C         10           -         -         -         -         20A         -         0         A         10           -         -         -         20A         -         0         B         96           -         -         -         -         20A         -         0         B         96           EM         M         1         4#8         3/4"         ~80A         3         3699         A         11  | 70       1       20A       3/4"       2#10+G       1       L         70       1       20A       3/4"       2#10+G       1       L         3       1       20A       3/4"       2#10+G       1       L         3       1       20A       3/4"       2#10+G       1       L         77       1       20A       3/4"       2#10+G       1       L  | LIGHTING30LIGHTING32LIGHTING34LIGHTING36LIGHTING38   | CONNECT<br>LOAD<br>(VA)<br>0  | ED LOAD (VA) 7093 9813 8480 25387<br>CONN SIZING SIZING<br>LD(VA) FACTOR LOAD (VA)<br>0 125% 0  | NOTES<br>* 1ST 10KVA @ 100%, REMAINING @ 50%<br>** SIZE. FAC. IN ACCORDANCE TO NEC 220-20  |   |
|  |                       |                                       | 29       31     RETRACTABLE RECEPTA       33     RETRACTABLE RECEPTA       35     RETRACTABLE RECEPTA       37     PETRACTABLE RECEPTA           | ACLES R  | 0         C           2#12         3/4"         20A         1         1000         A           2#12         3/4"         20A         1         1000         B           2#12         3/4"         20A         1         1000         C           2#12         3/4"         20A         1         1000         C           2#12         3/4"         20A         1         1500         A   | $\begin{array}{c c c c c c c c c c c c c c c c c c c $  | -         SPARE         30           -         SPARE         32           -         SPARE         34           -         SPARE         36           SPARE         38                       |  | A         B         C         TOTAL           CONNECTED LOAD (VA)         33421         33742         31310         98472   | 05 1 20A 3/4" 2#10+G 1 L  | LIGHTING 40 RECEPTACLE<br>SPACE 42 ELEC. HEAT<br>A/C LOAD<br>MOTORS  | S         1440           0         0           0         0           0         0    | 1440         *         1440           0         100%         0         *           0         100%         0         *           0         100%         0         *           0         100%         0         *   | *** NON-SIMULTANEOUS LOAD<br>*** 1ST 3000 VA @ 100%, NEXT 117,000 VA @ 35%<br>ABOVE 120,000 @ 25%<br>+ SIZE. FAC. IN ACCORDANCE TO NEC 620<br>++ SIZE FAC. IN ACCORDANCE WITH NEC 220.55   | Ď   |
|  | K                     |                                       | 39     SPARE       41     SPARE  | -  | -         -         20A         1         1300         A         1           -         -         20A         1         0         B         0         C         0<  | 1 ~20A<br>1 ~20A<br>1 ~20A  | -         SPARE         30           -         SPARE         40           -         SPARE         42   | LOAD EX.<br>LOAD TYPE (VA) P4 SI<br>LIGHTING 9202 C<br>RECEPTACLES 0 14  | CONN         SIZING         SIZING           C 2         LD(VA)         FACTOR         LOAD (*           9202         125%         1150           10         1440         *         1440  | G NOTES<br>/A) * 1ST 10KVA @ 100%, REMAINING @ 50%<br>*** SIZE. FAC. IN ACCORDANCE TO NEC 220-20<br>*** NON-SIMULTANEOUS LOAD   | ELEVATORS<br># OF ELEV<br>KITCHEN EQ<br># OF KITCH E<br>COOKTOP R/   | 0<br>0<br>0<br>2<br>0<br>NGE 0  | 0         100%         0           0         0         0           0         100%         0           0         0         100%         0           0         0         100%         0         4   | <ul> <li>++++ SIZE FAC. IN ACCORDANCE WITH NEC 220.54</li> <li>** ~ PROVIDE NEW CIRCUIT BREAKER</li> <li>+++</li> </ul>  |   |
|  |                       |                                       | LOAD<br>LOAD TYPE (VA)   | CONNECTED LOAD (VA)  | 10801 9301 9301 29404<br>CONN SIZING SIZIN<br>LD(VA) FACTOR LOAD (   | .G <u>NOTES</u><br>(VA) * 1ST 10KVA @ 100%, REM.  | AINING @ 50%   | ELEC. HEAT         0         0           A/C LOAD         0         0           MOTORS         3699         0           ELEVATORS         0         0  | 0         100%         0           0         0         100%         0           3699         100%         3699           0         0         100%         0           0         0         100%         0  | ****         ****         1ST 3000 VA @ 100%, NEXT 117,000 VA @ 33           ****         ABOVE 120,000 @           +         SIZE. FAC. IN ACCORDANCE TO NEC 620           ++         SIZE FAC. IN ACCORDANCE WITH NEC 220.55           +         +++ SIZE FAC. IN ACCORDANCE WITH NEC 220.54  | 4 # OF COOK T<br># OF DRYERS | OP         0           /ER         0           0         0           0         8427 | 0         0           0         100%         0           0         0         *****         0           0         8427         100%         8427   | ++<br>(GFCI) PROVIDE GND FAULT CIRCUIT INTERRUPTER<br>(PDLK) PROVIDE PADLOCK<br>(ST) PROVIDE SHUNT TRIP  |   |
|  |                       |                                       | LIGHTING0RECEPTACLES7500ELEC. HEAT0A/C LOAD0   |  | 0         125%         0           7500         *         7500           0         100%         0           0         100%         0   | ** SIZE. FAC. IN ACCORDAN *** NON-SIMULTANEOUS LC **** *** *** *** *** *** *** *** ***  | NCE TO NEC 220-20<br>OAD<br>, NEXT 117,000 VA @ 35%<br>ABOVE 120,000 @ 25%   | # OF ELEV         0         0           KITCHEN EQ         0         0           # OF KITCH EQ         0         0           COOKTOP RANGE         0         0           # OF COOK TOP         0         0 | 0         0           0         100%         0           0         0         100%         0           0         100%         0         0           0         100%         0         0   | ** ~ PROVIDE NEW CIRCUIT BREAKER  | OTHER<br>LARGEST CC  | 15520<br>INECTED MOTOR  | 15520         100%         15520           25%         0         0           CONNECTED TOTAL (VA)         25387         25387           CONNECTED AMPACITY (A)         70.47         70.47           DEMAND TOTAL (VA)         25387         5  | SIZING TOTAL (VA)<br>SIZING AMPACITY (A)   |   |
|  | J                     |                                       | MOTORS         21904           ELEVATORS         0           # OF ELEV         0           KITCHEN EQ         0                                  |  | 21904         100%         2190           0         100%         0           0         100%         0           0         100%         0   | + SIZE. FAC. IN ACCORDANC<br>++ SIZE FAC. IN ACCORDAN<br>++ SIZE FAC. IN ACCORDAN<br>++ +++ SIZE FAC. IN ACCORDA  | NCE TO NEC 620<br>NCE WITH NEC 220.55<br>ANCE WITH NEC 220.54  | CLOTHES DRYER         0         0           # OF DRYERS         0         0           LAUNDRY         0         0           EXISTING         0         84           OTHER         71450         155        | 0         100%         0           0         0         0           0         0         *****         0           27         8427         100%         8427           20         86970         100%         86970  | +++ (GFCI) PROVIDE GND FAULT CIRCUIT INTERRUPT (PDLK) PROVIDE PADLOCK (ST) PROVIDE SHUNT TRIP )   | TER  |   | EXISTING PANELBOARD SCH   | HEDULE   | ]<br>[  |
|  |                       |                                       | # OF KITCH EQ0COOKTOP RANGE0# OF COOK TOP0CLOTHES DRYER0   |  | 0         0           0         100%         0           0         100%         0           0         100%         0           0         100%         0  | ++<br>++  |  | LARGEST CONNECTED MOTOR  | 25%         0           CONNECTED TOTAL (VA)         109737           CONNECTED AMPACITY (A)         304.60           DEMAND TOTAL (VA)         112038           DEMAND AMPACITY (A)         310.99   | 8 SIZING TOTAL (VA)<br>9 SIZING AMPACITY (A)  | VOL<br>12<br>  | AGE PHASE   | WIRE         MCB (A)         MLO (A)           4         -         100A           TYPE LEGEND         K         KITCHEN EQ         1. PRO   | AIC MOUNTING MANUE<br>EXISTING SURFACE -<br>NOTE<br>OVIDE NEW CIRCUIT BREAKER AT INDICATED BREAKER S   | AC. MDL #   |
|  |                       |                                       | # OF DRYERS0LAUNDRY0EXISTING0OTHER0  |  | 0           0         ****         0           0         100%         0           0         100%         0   | (GFCI) PROVIDE GND FAULT<br>(PDLK) PROVIDE PADLOCK<br>(ST) PROVIDE SHUNT TRIP   | LT CIRCUIT INTERRUPTER   | VOLTAGE PHASE  | EXISTING PANELBOARD SCHEDUL   | C MOUNTING MANUFAC. MDL #   | P6 M W   | RECEPTACLES       ELEC. HEAT       A/C LOAD       MOTORS       LAUNDRY              | E     EXISTING     2. VEH       O     OTHER     BRE       V     ELEVATORS       C     COOKTOP RANGE       D     CLOTHES DRYER   | AFY THAT EXISTING CIRCUIT BREAKER IS A "SPARE" BEFC<br>EAKER LOCATION.   | IRE CONNECTING NEW LOAD AT INL  |
|  | Н                     |                                       | LARGEST CONNECTED MOTOR  | CONNEC<br>CONNECTE<br>DEM                                  | 25%         0           CTED TOTAL (VA)         29404         2940           ED AMPACITY (A)         81.62         81.6           AND TOTAL (VA)         29404         10  | 4 SIZING TOTAL (VA)<br>2 SIZING AMPACITY (A)  |  | L LIGHTING<br>R RECEPTACLES<br>H ELEC. HEAT  | 4     -     100A     EXIS       TYPE LEGEND     K     KITCHEN EQ     1. VERIFY THAT E:       E     EXISTING     CONNECTING N       O     OTHER     2. DISCONNECT A  | ING SURFACE NOTES<br>NOTES<br>(ISTING CIRCUIT BREAKER(S) IS MADE SPARE UPON COMPLETION OF<br>EW LOAD AT INDICATED BREAKER SPACE(S).<br>ND REMOVE EXISTING CIRCUIT BREAKER(S) AT INDICATED BREAKER   | F DEMOLITION BEFORE  | ITEM  | Image: Second contract of the second contract of th | D     BSPH     LOAD     CKT. BRK     LOAD     SET       (VA)     P     TRIP     TRIP     TRIP  | ITEM<br>SERVED  |
|  |                       |                                       |  | EXIST  | ING PANELBOARD SCHEDUL   |   | P5   | M MOTORS<br>W LAUNDRY  | V     ELEVATORS     3. PROVIDE NEW       C     COOKTOP RANGE       D     CLOTHES DRYER       U     U     CKT. BRK       U     U       U     < |   | ITEM     1       3       5       7       2       9   | EX. LOADS<br>EX. LOADS<br>EX. LOADS   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   | A         1040         2         20A         EX.         EX.           )         B         1040         2         20A         EX.         EX.           )         C         720         1         20A         EX.         EX.           )         A         720         1         20A         EX.         EX.           )         A         720         1         20A         EX.         EX.  | O         EX. LOADS           O         EX. LOADS           O         EX. LOADS           O         EX. LOADS   |
|  |                       |                                       | VOLTAGE     PHASE       120     208     3  | WIKE         K           4         K           K         E | MCB (A) MLO (A) A<br>- 100A EXIS<br>KITCHEN EQ 1. VERIFY THAT E<br>EXISTING CONNECTING N   | Image: Mounting     Manufai       FING     SURFACE     -       NOTES     NOTES       XISTING CIRCUIT BREAKER(S) IS MADE SPARE L   | AC.     MDL #     FED FROM       -     REFER TO RISER  | O     SERVED       1     EX. LIGHTS       3     EX. LIGHTS       5     EX. LIGHTS       7     EX. RECEPTACLES  | L         EX.         EX.         20A         1         1000         A         72           L         EX.         EX.         20A         1         1000         A         72           L         EX.         EX.         20A         1         1000         B         72           L         EX.         EX.         EX.         20A         1         1000         C         72           L         EX.         EX.         EX.         20A         1         1000         C         72           R         EX.         EX.         EX.         20A         1         720         A         72  | A)         P         TRIP         B         Z <thz< th="">         Z         Z         Z</thz<>   | SERVED3RECEPTACLES2RECEPTACLES4RECEPTACLES6EX. J-BOX IG8   | EX. LOADS<br>EX. LOADS<br>VPN SYSTEM<br>EX. LOADS<br>EX. LOADS                      | O         EX.         EX.         20A         1         120           O         EX.         EX.         20A         1         720           O         2         2#12+G         3/4"         20A         1         100           O         EX.         EX.         EX.         20A         1         720           O         EX.         EX.         20A         1         720           O         EX.         EX.         20A         1         720   | C         720         1         20A         EX.         EX.           C         720         1         20A         EX.         EX.           A         720         1         20A         EX.         EX.           B         720         1         20A         EX.         EX.           C         720         1         20A         EX.         EX.           D         B         720         1         20A         EX.         EX.           O         C         100         1         20A         3/4"         2#12+G         1  | O         EX. LOADS           O         EX. LOADS |
|  | G                     |                                       | HELEC. HEATAA/C LOADMMOTORSWLAUNDRY  | 0<br>V<br>C<br>D   | OTHER 2. DISCONNECT A<br>ELEVATORS 3. PROVIDE NEW<br>COOKTOP RANGE<br>CLOTHES DRYER  | ND REMOVE EXISTING CIRCUIT BREAKER(S) AT<br>CIRCUIT BREAKER AS SCHEDULED.   | INDICATED BREAKER SPACES.  | 9         EX. RECEPTACLES           11         EX. RECEPTACLES           13         EX. RECEPTACLES           15         EX. EXHAUST FAN RM 7           17         EX. EXHAUST FAN RM 7                    | R         EX.         EX.         20A         1         720         B         72           R         EX.         EX.         EX.         20A         1         720         C         72           R         EX.         EX.         EX.         20A         1         720         C         72           Q4         M         EX.         EX.         20A         1         750         B         72           04         M         EX.         EX.         20A         1         750         C         50  | 0         1         20A         EX.         EX.         R         EX.           0         1         20A         EX.         EX.         M         EX.   | RECEPTACLES10RECEPTACLES12RECEPTACLES14EX. J-BOX IG16. EXHAUST FAN18   | сс  | A B C TOTAL<br>DNNECTED LOAD (VA) 4340 4960 3700 13000  |  |   |
|  |                       |                                       | #     ITEM       X     SERVED       1     EX.LIGHTS  | n TYPE NOTES   | Image: Non-Ward Non-War<br>Non-Ward Non-Ward N | AD         CKT. BRK         Ling         Weight         Single           'A)         P         TRIP         OS         Weight         Single           20         1         20A         EX.         EX.         EX.   | R EX. RECEPTACLES 2  | 19         EX. EXHAUST FAN           21         NEW RESTROOM RECEPT/           23         LIGHTING           25         LIGHTING           27         EX. LOADS  | M         EX.         EX.         20A         1         750         A         722           ACLES         R         1         2#12         3/4"         20A         1         860         B         722           L         1,2,3         2#10+G         3/4"         20A         1         963         C         722           L         1,2,3         2#10+G         3/4"         20A         1         1070         A         722           O         EX.         EX.         20A         1         1000         B         323   | 0         1         20A         EX.         EX.         O           0         1         20A         EX.         EX.         R         EX.           1         20A         EX.         EX.         R         EX.           1         1         20A         3/4"         2#10+G         1,2,3         Image: Constraint of the second secon | EX. LOADS20RECETPACLES22RECETPACLES24LIGHTING26LIGHTING28  | LOAD<br>(VA)<br>.ES 0   | CONN SIZING<br>LD(VA) FACTOR<br>0 125%<br>0 *   | SIZING         NOTES           LOAD (VA)         * 1ST 10KVA @ 100%, RE™           0         ** SIZE. FAC. IN ACCORD.           0         *** NON-SIMULTANEOUS           0         **** - 1ST 3000 VA @ 100  | //AINING @ 50%<br>ANCE TO NEC 220-20<br>LOAD<br>% NEXT 117.000 VA @ 35%   |
|  |                       |                                       | 3EX. LIGHTS5EX. LIGHTS7EX. RECEPTACLES9EX. LIGHTS  | L L R L L  | EX.         EX.         20A         1         1000         B         77           EX.         EX.         20A         1         1000         C         77           EX.         EX.         20A         1         1000         C         77           EX.         EX.         20A         1         720         A         77           EX.         EX.         20A         1         1000         B         77   | .0         1         20A         EX.         EX.           20         1         20A         EX.         EX.           20         1         20A         EX.         EX.           0         -         -         -         -  | REX. RECEPTACLES4REX. RECEPTACLES6REX. RECEPTACLES8-SPACE10  | 29 EX. LOADS   | O         EX.         EX.         20A         1         1000         C         C           A         B         C         TOTAL           CONNECTED LOAD (VA)         7860         7531         7093         22484   | 1 20A - 1,2,3   | SPARE 30 A/C LOAD<br>MOTORS<br>ELEVATOR  | 0<br>0<br>0   | 0         100%           0         100%           0         100%           0         100%           0         100%  | 0         ***           0         + SIZE. FAC. IN ACCORD/           ++ SIZE FAC. IN ACCORD         ++ SIZE FAC. IN ACCORD           0         +  | ABOVE 120,000 @ 25%<br>NCE TO NEC 620<br>ANCE WITH NEC 220.55<br>DANCE WITH NEC 220.54  |
|  | F                     |                                       | 11SPARE13SPARE15SPARE17SPARE10EX LICUTE  |  | -         -         20A         1         0         C         77           -         -         20A         1         0         A         10           -         -         20A         1         0         B         10           -         -         20A         1         0         C         77           -         -         20A         1         0         B         10           -         -         20A         1         0         C         77           -         -         20A         1         0         C         77   | 0         1         20A         EX.         EX.           00         1         20A         EX.         EX.           00         1         20A         EX.         EX.           20         1         20A         EX.         EX.           20         1         20A         EX.         EX. | R         EX. GAS POWER         12           M         EX. FAN         14           M         EX. FAN         16           R         EX. RECEPTACLES         18                            | LOAD TYPE (VA) LIGHTING 5033 RECEPTACLES 11660 ELEC. HEAT 0  | CONN         SIZING         SIZIN           LD(VA)         FACTOR         LOAD (           5033         125%         6291           11660         *         1083           0         100%         0   | A)         NOTES           (A)         * 1ST 10KVA @ 100%, REMAINING @ 50%           ** SIZE. FAC. IN ACCORDANCE TO NEC 220-20           *** NON-SIMULTANEOUS LOAD           ****           ****  | # OF ELEV<br>KITCHEN E<br># OF KITCH<br>55%  | 0<br>0<br>EQ 0<br>RANGE 0   | 0         0           0         100%           0         0           0         0           0         100%   | 0 ** ~ PROVIDE NEW CIRCUIT   | BREAKER   |
|  |                       |                                       | 19         EX. LIGHTS           21         SPARE           23         EX. LIGHTS           25         EX. LIGHTS           27         EX. LIGHTS | L<br>L<br>L  | EX.         EX.         20A         1         1000         A         7           -         -         20A         1         0         B         0           EX.         EX.         20A         1         1000         C         0           EX.         EX.         20A         1         1000         A         100           EX.         EX.         20A         1         1000         A         100           EX.         EX.         20A         1         1000         B         0   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   | R         EX. RECEPTACLES         20           -         SPARE         22           -         SPARE         24           M         EX. FAN         26           -         SPARE         28 | A/C LOAD         0           MOTORS         2750           ELEVATORS         0           # OF ELEV         0   | 0         100%         0           2750         100%         2750           0         100%         0           0         100%         0           0         0         100%         0  | ***         ABOVE 120,000 @           + SIZE. FAC. IN ACCORDANCE TO NEC 620           ++ SIZE FAC. IN ACCORDANCE WITH NEC 220.55           +           ++ SIZE FAC. IN ACCORDANCE WITH NEC 220.54   | 4 F COOK<br>4 F COOK<br>4 F OF COOK<br>CLOTHES I<br># OF DRYE<br>LAUNDRY<br>EXISTING   | TOP         0           RYER         0           RS         0           0         0 | 0         0           0         100%           0         0           0         ****           0         100%  | 0 +++<br>(GFCI) PROVIDE GND FAI<br>(PDLK) PROVIDE PADLO(<br>(ST) PROVIDE SHI INT TE  | JLT CIRCUIT INTERRUPTER<br>CK   |
|  |                       |                                       | 29         EX. LIGHTS           31         EX. RECEPTACLES           33  | L R M 1  | EX.         EX.         20A         1         1000         C         C           EX.         EX.         20A         1         720         A         72           3#10         3/4"         ~30A         3         1273         C         12   | 1         20A         -         -           20         1         20A         EX.         EX.           00         1         20A         EX.         EX.           273   | -         SPARE         30           R         EX. RECEPTACLES         32           M         EX. FAN         34           36         36   | KITCHEN EQ     0       # OF KITCH EQ     0       COOKTOP RANGE     0       # OF COOK TOP     0       CLOTHES DRYER     0   | 0         100%         0           0         0         0           0         100%         0           0         0         100%         0           0         0         100%         0           0         0         100%         0  | ** ~ PROVIDE NEW CIRCUIT BREAKER  | OTHER<br>LARGEST (   | 13000<br>ONNECTED MOTOR   | CONNECTED TOTAL (VA)         13000         25%           CONNECTED AMPACITY (A)         36.08         36.08   | 13000         0           13000         SIZING TOTAL (VA)           36.08         SIZING AMPACITY (A)  | Ţ   |
|  | E                     |                                       | 37<br>39<br>41<br>SPARE  | -  |  | 73         3         ~30A         3/4"         3#10         1           73         -         -         -         -         -  | M         FAN F-1         38           40         -         SPACE         42   | # OF DRYERS     0       LAUNDRY     0       EXISTING     0       OTHER     2720       LARGEST CONNECTED MOTOR  | 0         0           0         0         ****         0           0         0         100%         0           2720         100%         2720           25%         0  | (GFCI) PROVIDE GND FAULT CIRCUIT INTERRUPT<br>(PDLK) PROVIDE PADLOCK<br>(ST) PROVIDE SHUNT TRIP   | TER  |   | DEMAND TOTAL (VA) 13000<br>DEMAND AMPACITY (A) 36.08  |  |   |
| 1        |                       |                                       | LOAD<br>LOAD TYPE (VA)   | CONNECTED LOAD (VA)  | X         B         C         101AL           11866         8266         7706         27837           CONN         SIZING         SIZIN           LD(VA)         FACTOR         LOAD (   | IG <u>NOTES</u><br>(VA) * 1ST 10KVA @ 100%, REM.  | AINING @ 50%   |  | CONNECTED TOTAL (VA) 22163 2259<br>CONNECTED AMPACITY (A) 61.52 62.7<br>DEMAND TOTAL (VA) 22591<br>DEMAND AMPACITY (A) 62.71  | I SIZING TOTAL (VA)<br>SIZING AMPACITY (A)  |  |   |   |  |   |
|  |                       |                                       | LIGHTING9000RECEPTACLES7200ELEC. HEAT0A/C LOAD0  |  | 9000         125%         1125           7200         *         7200           0         100%         0           0         100%         0           0         100%         0  | ) ** SIZE. FAC. IN ACCORDAN<br>*** NON-SIMULTANEOUS LC<br>**** - 1ST 3000 VA @ 100%,<br>***   | NCE TO NEC 220-20<br>OAD<br>, NEXT 117,000 VA @ 35%<br>ABOVE 120,000 @ 25%   |  |   |   |  |   |   |  |   |
|  | D                     |                                       | MOTORS         7819           ELEVATORS         0           # OF ELEV         0           KITCHEN EQ         0                                   |  | 7819         100%         7819           0         100%         0           0         100%         0           0         100%         0  | + SIZE. FAC. IN ACCORDANC<br>++ SIZE FAC. IN ACCORDAN<br>++ SIZE FAC. IN ACCORDAN<br>++ +++ SIZE FAC. IN ACCORDA  | NCE TO NEC 620<br>NCE WITH NEC 220.55<br>ANCE WITH NEC 220.54  |  |   |   |  |   |   |  |   |
| C     Image: Control Transmitter State S |                       |                                       | # OF KITCH EQ0COOKTOP RANGE0# OF COOK TOP0CLOTHES DRYER0   |  | 0         0           0         100%         0           0         0         100%         0           0         100%         0         0   | ++<br>++  |  |  |   |   |  |   |   |  |   |
| B          |                       |                                       | # OF DRYERS0LAUNDRY0EXISTING0OTHER0  |  | 0           0         ****         0           0         100%         0           0         100%         0   | (GFCI) PROVIDE GND FAULT<br>(PDLK) PROVIDE PADLOCK<br>(ST) PROVIDE SHUNT TRIP   | LT CIRCUIT INTERRUPTER   |  |   |   |  |   |   |  |   |
|  | С                     |                                       | LARGEST CONNECTED MOTOR  | CONNEC<br>CONNECTE<br>DEM<br>DEMAN                         | 25%         0           CTED TOTAL (VA)         24019           ED AMPACITY (A)         66.67           AND TOTAL (VA)         26269           ID AMPACITY (A)         72.91   | <ul> <li>SIZING TOTAL (VA)</li> <li>SIZING AMPACITY (A)</li> </ul>  |  |  |   |   |  |   |   |  |   |
|  |                       |                                       |  | DEIVIAN  |  |   |  | _  |   |   |  |   |   |  |   |
|  |                       |                                       |  |  |  |   |  |  |   |   |  |   |   |  |   |
|  |                       |                                       |  |  |  |   |  |  |   |   |  |   |   |  |   |
|  | sr   4/10/08   9:18 F |                                       |  |  |  |   |  |  |   |   |  |   |   |  |   |

В \_\_\_\_\_ A

![](_page_36_Figure_20.jpeg)