# LEGEND

| | | |
|---|---|---|
| AAV | AUTOMATIC AIR VENT | |
| A/C | AIR CONDITIONING | |
| AD | AREA DRAIN | |
| A/H | AIR HANDLING UNIT | |
| B | BIDET | |
| BD | BALCONY DRAIN | |
| BFS | BELOW FLOOR SLAB | |
| BT | BATH TUB | |
| BTU/H | BRITISH THERMAL UNITS PER HOUR | |
| BTU/M | BTU/METER | |
| BV | BYPASS TYPE VARIABLE AIR VOLUME UNIT | |
| CC | COOLING COIL | |
| CO | CLEAN-OUT | |
| CCO | CEILING OR WALL CLEAN-OUT | |
| CD | SUPPLY CEILING DIFFUSER | |
| CI | CAST IRON | |
| CL | CEILING LEVEL | |
| CLB | CEILING LEVEL BELOW | |
| CP | CONTROL PANEL | |
| CPV | CHROME PLATED VALVE | |
| C/U | CONDENSING UNIT | |
| CW | COLD WATER SUPPLY PIPE | |
| D | DRAIN OR CONDENSATE DRAIN PIPE | |
| DB | DRY BULB TEMPERATURE | |
| BDD | BACK DRAFT DAMPER | |
| DF | DRINKING FOUNTAIN | |
| DL | DOOR LOUVER | |
| DN | DOWN | |
| DR | DRY RISER | |
| DW | DRINKING WATER PIPE | |
| DWM | DISH WASHING MACHINE | |
| EAL | EXHAUST AIR LOUVER | |
| EA | EXHAUST AIR | |
| EAD | EXHAUST AIR DUCT UP/DN | |
| EAT | ENTERING AIR TEMPERATURE | |
| E/B | EVAPORATOR BLOWER UNIT | |
| ECD | EXHAUST CEILING DIFFUSER | |
| EG | EXHAUST GRILLE | |
| EHE | ELECTRIC HEATING ELEMENT | |
| ER | EXHAUST REGISTER | |
| EWH | ELECTRIC WATER HEATER | |
| EWT | ENTERING WATER TEMPERATURE | |
| ET | EXPANSION TANK | |
| EX | EXPANSION WATER PIPE | |
| EXF | EXHAUST FAN | |
| FA | FRESH AIR | |
| FAB | FROM ABOVE | |
| FA-A/H | FRESH AIR-AIR HANDLING UNIT | |
| FB | FROM BELOW | |
| FAD | FRESH AIR DUCT UP/DN | |
| FAF | FRESH AIR FAN | |
| FAG | FRESH AIR GRILLE | |
| FAL | FRESH AIR LOUVER | |
| FAO | FRESH AIR OPENING | |
| FAR | FRESH AIR REGISTER | |
| FC | FALSE CEILING | |
| FCO | FLOOR CLEAN-OUT | |
| FD | FLOOR DRAIN | |
| FDR | FIRE DAMPER | |
| FE | DRY POWDER FIRE EXTINGUISHER | |
| FE | CO2 FIRE EXTINGUISHER | |
| FFL | FINISHED FLOOR LEVEL | |
| FHC | FIRE HOSE CABINET | |
| FTK | FLUSH TANK | |
| FLX | FLEXIBLE DUCT | |
| GPM | U.S. GALLONS PER MINUTE | |
| GGT | GARAGE GULLY TRAP | |
| GS | GALVANIZED STEEL | |
| GT | GULLY TRAP | |
| HB | HEATING BOILER | |
| H/B | HOSE BIBB | |
| HC | HEATING COIL | |
| HL | HIGH LEVEL | |

| | | |
|---|---|---|
| HRC | | HOSE REEL CABINET |
| HRR | | HOSE REEL RISER |
| HW | | HOT WATER SUPPLY (DOMESTIC USE) |
| HHWS | HHWS | HEATING HOT WATER SUPPLY |
| HWR | | HOT WATER RETURN (DOMESTIC USE) |
| HHWR | HHWR | HEATING HOT WATER RETURN |
| HHWRR | HHWRR | HEATING HOT WATER REVERSE RETURN |
| IC | | INSPECTION CHAMBER |
| IGPM | | IMPERIAL GALLONS PER MINUTE |
| IL | | INVERT LEVEL |
| IV | | ISOLATING VALVE |
| IW | IW | IRRIGATION WATER |
| IWL | | IN WALL |
| JS | | JANITOR SINK |
| KCAL | | KILO-CALORIE |
| KS | | KITCHEN SINK |
| KW | | KILOWATT |
| LAV | | LAVATORY |
| LL | | LOW LEVEL |
| LPS OR L/S | | LITERS PER SECOND |
| LPM | | LITERS PER MINUTE |
| LS | | LAUNDRY SINK |
| LWT | | LEAVING WATER TEMPERATURE |
| MBH | | 1000 x BTU/H |
| MH | | MANHOLE |
| MSIU | | MINI-SPLIT INDOOR UNIT |
| MSOU | | MINI-SPLIT OUTDOOR UNIT |
| MVD | | MOTORIZED VOLUME DAMPER |
| NTS | | NOT TO SCALE |
| P | | PLUMBING |
| PL | PL | PUMP LINE |
| PMH | | PERCOLATING MANHOLE |
| PVC | | POLYVINYL CHLORIDE PIPES |
| RA | | RETURN AIR |
| RAD | | RETURN AIR DUCT UP/DN |
| | | RADIATOR |
| RAF | | RETURN AIR FAN |
| RCD | | RETURN CEILING DIFFUSER |
| RCS | | REMOTE CONTROL STATION |
| RD | | ROOF DRAIN |
| RG | | RETURN GRILLE |
| RL | | REFRIGERANT LIQUID LINE |
| RLCD | | RETURN LINEAR CEILING DIFFUSER |
| RLBG | | RETURN LINEAR BAR GRILLE |
| RLSD | | RETURN LINEAR SLOT DIFFUSER |
| RM | | ROOM |
| RS | | REFRIGERANT SUCTION LINE |
| RTU | | ROOF TOP UNIT |
| RVC | | ROOF VENT CAP |
| RW | | RAIN WATER PIPE |
| SA | | SUPPLY AIR |
| SAD | | SUPPLY AIR DUCT UP/DN |
| SAT | | SOUND ATTENUATOR |
| SD | | SPLITTER DAMPER |
| SG | | SUPPLY GRILLE |
| SH | | SHOWER TRAY |
| SKR | | SPRINKLER HEAD |
| SLCD | | SUPPLY LINEAR CEILING DIFFUSER |
| SLBG | | SUPPLY LINEAR BAR GRILLE |
| SLSD | | SUPPLY LINEAR SLOT DIFFUSER |
| SP | | STATIC PRESSURE |
| SR | | SUPPLY REGISTER |
| SS | | SOIL STACK |
| SV | | STACK VENT |
| SCD | | SUPPLY CEILING DIFFUSER |
| SMFDR | | SMOKE MOTORIZED FIRE DAMPER |
| TA OR TAB | | TO ABOVE |
| TB | | TO BELOW |
| TG | | TRANSFER GRILLE |
| TYP | | TYPICAL |
| U/C | | UNIT COOLER |
| UR | | URINAL |
| UT | | UNDER TILES |

| | | |
|---|---|---|
| VAV | | VARIABLE AIR VOLUME (SHUT-OFF TYPE) |
| VD | | MANUAL VOLUME DAMPER |
| VP | | VENT PIPE |
| VS | | VENT STACK |
| WB | | WET BULB |
| WC | | EUROPEAN WATER CLOSET |
| WL | | WALL |
| WM | | WASHING MACHINE |
| WR | WR | WET RISER |
| WS | | WASTE STACK |
| WM | | WATER METER |
| W/U | | WINDOW UNIT |
| | | WALL SHALL NOT CONTINUE ABOVE F.C. |
| | | THERMOMETER |
| | | DRAINAGE PIPE AT CEILING LEVEL |
| | | DRAINAGE PIPE BFS OR AT CLB |
| F | | FIRE WATER LINE |
| FOS | | FUEL OIL SUPPLY LINE |
| FOR | | FUEL OIL RETURN LINE |
| SP | | SPRINKLER LINE |
| | | DUCT WITH 1" ACOUSTIC INTERNAL LINING |
| | | GATE VALVE |
| | | GLOBE VALVE |
| | | DOUBLE REGULATING VALVE |
| | | BUTTERFLY VALVE |
| | | SOLENOID VALVE |
| | | EXPANSION VALVE |
| | | PRESSURE REDUCING VALVE |
| | | FLOAT VALVE |
| | | PRESSURE GAUGE |
| | | 2-WAY MOTORIZED VALVE |
| | | 3-WAY MOTORIZED VALVE |
| | | PRESSURE RELIEF VALVE |
| | | CHECK VALVE |
| | | STRAINER |
| | | FLANGE OR UNION |
| | | PIPE EXPANSION JOINT |
| | | VALVE BOX |
| | | THERMOSTAT |
| | | SPACE NUMBER ONE |
| HS | | ABSOLUTE HUMIDITY SENSOR |
| C | | CONTACTOR |
| | | REMOTE SETTING |
| P | | STATIC PRESSURE DIFFERENTIAL SENSOR |
| F | | FLOW DETECTOR |
| SW | | SUMMER / WINTER CHANGE-OVER SWITCH |
| M | | MAIN CIRCUIT BREAKER |
| B | | BRANCH CIRCUIT BREAKER |
| WTC | | WINTER TEMPERATURE CONTROLLER |
| TS | | TEMPERATURE SENSOR |
| S | | STARTER |
| SPC | | STATIC PRESSURE CONTROLLER |
| STC | | SUMMER TEMPERATURE CONTROLLER |
| | | ON/OFF PUSH BUTTON |
| CT | | CONTROL TRANSFORMER |
| | | PILOT LIGHTS |
| TC | | TEMPERATURE CONTROLLER |
| PRS | | PRESSURE REDUCING STATION |
| RISER NO | | RISER NUMBER |
| JEF | | JET FAN |

| S.N. | File No. | Sheet No. | Drawing name | | Scale |
|---|---|---|---|---|---|
| | | | GENERAL | | |
| 1 | BY1516-GNL-00 | M-00 | Legend , General Notes and List of Mechanical Drawings | | N.T.S |
| 2 | BY1516-GNL-01 | M-01 | Mechanical Miscellaneous Details | | AS SHOWN |
| 3 | BY1516-GNL-02 | M-02 | Mechanical Risers Diagram | | AS SHOWN |
| | | | HVAC | | |
| 4 | BY1516-HVAC-B02 | H100 | 2nd Basement Floor Plan | HVAC LAYOUT | 1/100 |
| 5 | BY1516-HVAC-B01 | H101 | 1st Basement Floor Plan | HVAC LAYOUT | 1/100 |
| 6 | BY1516-HVAC-GFL | H102 | Ground Floor Plan | HVAC LAYOUT | 1/100 |
| 7 | BY1516-HVAC-F01 | H103 | First Floor Plan | HVAC LAYOUT | 1/100 |
| 8 | BY1516-HVAC-F02 | H104 | Second Floor Plan | HVAC LAYOUT | 1/100 |
| 9 | BY1516-HVAC-F03 | H105 | Third Floor Plan | HVAC LAYOUT | 1/100 |
| 10 | BY1516-HVAC-RFL | H106 | Roof Plan | HVAC LAYOUT | 1/100 |
| | | | DRAINAGE | | |
| 11 | BY1516-DR-B02 | DR100 | 2nd Basement Floor Plan | DRAINAGE LAYOUT | 1/100 |
| 12 | BY1516-DR-B01 | DR101 | 1st Basement Floor Plan | DRAINAGE LAYOUT | 1/100 |
| 13 | BY1516-DR-GFL | DR102 | Ground Floor Plan | DRAINAGE LAYOUT | 1/100 |
| 14 | BY1516-DR-F01 | DR103 | First Floor Plan | DRAINAGE LAYOUT | 1/100 |
| 15 | BY1516-DR-F02 | DR104 | Second Floor Plan | DRAINAGE LAYOUT | 1/100 |
| 16 | BY1516-DR-F03 | DR105 | Third Floor Plan | DRAINAGE LAYOUT | 1/100 |
| 17 | BY1516-DR-RFL | DR106 | Roof Plan | DRAINAGE LAYOUT | 1/100 |
| 18 | BY1516-DR-TRF | DR107 | Top of Roof | DRAINAGE LAYOUT | 1/100 |
| | | | WATER SUPPLY & FIRE FIGHTING LAYOUT | | |
| 19 | BY1516-WS-B02 | WS100 | 2nd Basement Floor Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |
| 20 | BY1516-WS-B01 | WS101 | 1st Basement Floor Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |
| 21 | BY1516-WS-GFL | WS102 | Ground Floor Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |
| 22 | BY1516-WS-F01 | WS103 | First Floor Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |
| 23 | BY1516-WS-F02 | WS104 | Second Floor Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |
| 24 | BY1516-WS-F03 | WS105 | Third Floor Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |
| 25 | BY1516-WS-RFL | WS106 | Roof Plan | WATER SUPPLY / FIRE FIGHTING LAYOUT | 1/100 |

# MECHANICAL GENERAL NOTES

## AIR CONDITIONING & HEATING GENERAL NOTES

1-THESE DRAWINGS SHALL BE USED FOR HEATING, COOLING & VENTILATION PURPOSES ONLY, DO NOT SCALE FROM THESE DRAWINGS.

2-THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS OF DIFFERENT TRADES FOR COORDINATION PURPOSES.

3-THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THREE SETS OF SHOP DRAWINGS SHOWING OPENINGS & SLEEVES IN CONCRETE WALLS & SLABS BEFORE WORK CAN BEGIN. HE SHALL ALSO PREPARE ANOTHER THREE SETS OF SHOP DRAWINGS FOR APPROVAL SHOWING THE SYSTEM EXACTLY IN PLACE.

4-ALL EQUIPMENT SHOULD BE APPROVED BEFORE PURCHASE ORDER HAS BEEN PLACED.

5-ALL PIPES CROSSING CONCRETE EXPANSION JOINTS SHALL HAVE PIPE EXPANSION JOINTS.

6-ALL DUCTS CROSSING CONCRETE EXPANSION JOINTS SHALL HAVE DUCT EXPANSION JOINTS.

7-ALL A/C PIPES & DUCTS RUN AT CEILING LEVEL UNLESS INDICATED OTHERWISE.

8-ALL ROOMS EQUIPPED WITH FM200 SYSTEM OR ANY OTHER TOTAL FLOODING SYSTEM SHALL HAVE SEALED DOORS WITH AUTOMATIC SHUTTERS.

9-THE FALSE CEILING VOID IS CONSIDERED AS RETURN AIR PLENUM UNLESS INDICATED OTHERWISE.

10-FOR LOCATION OF FLOOR DRAIN WHERE A/C CONDENSATE DRAIN IS DISCHARGED REFER TO THE CORRESPONDING DRAINAGE LAYOUT DWG.

11-ALL VALVES HAVE THE SAME SIZE AS THE PIPE SERVED UNLESS INDICATED OTHERWISE.

12-ALL FIRE DAMPERS SHALL HAVE ACCESS PANEL.

13-THE CONTRACTOR HAS TO CONFIRM THE STATIC HEAD OF ALL FANS, AIR HANDLING UNITS AND PUMPS HEAD.

14-THE CONTRACTOR HAS TO SUPPLY AND INSTALL ALL BASES FOR VRV, FANS, AIR HANDLING UNITS, PUMPS, GENERATORS, ETC. ALL ELECTRO-MECHANICAL EQUIPMENT TO THE APPROVAL OF THE ACOUSTIC CONSULTANTS AND THE ENGINEER AT NO EXTRA COST.

15-ALL SMOKE EXHAUST DUCT WORK SHALL BE FIRE RATED TO WITHSTAND A TEMPERATURE OF 400°C FOR TWO HOURS.

16-THE EXACT LOCATION OF THERMOSTATS SHALL BE DETERMINED DURING CONSTRUCTION IN COORDINATION WITH ALL CONCERNED PARTIES INCLUDING THE INTERIOR DESIGNER AND SHALL BE SUBMITTED FOR REVIEW & APPROVAL OF THE ENGINEER.

17-WIRE MESH SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:
- -AIR INLETS & OUTLETS EXPOSED TO THE ATMOSPHERE.
- -INLETS OF FAF'S & EXF'S WHOSE INTAKE IS NOT DUCTED
- -RETURN AIR & EXHAUST AIR DUCT INLETS.

18-AIR OPENINGS OF ADEQUATE SIZE SHALL BE PROVIDED WHERE NECESSARY FOR PASSAGE OF RETURN AIR ABOVE FALSE CEILING.

19-RETURN AIR DUCTS ABOVE FALSE CEILING SHALL TERMINATE WITH A DUCT PIECE HAVING AIR INLET FACE AREA TWICE THE AREA OF THE RESPECTIVE DUCT.

20-AUTOMATIC BACK DRAFT DAMPERS SHALL BE PROVIDED ON ALL FANS WHICH ARE NOT ALREADY PROVIDED WITH MOTORIZED DAMPERS.

21-THE CONTRACTOR SHALL PREPARE DURING CONSTRUCTION SHOP DRAWINGS SHOWING THE LOCATIONS AND SIZES OF ALL ACCESS PANELS IN FALSE CEILING THAT ARE REQUIRED FOR MAINTENANCE, ADJUSTMENT OR REPLACEMENT OF MECHANICAL ITEMS. THESE SHOP DRAWINGS SHALL BE DONE IN COORDINATION WITH ALL CONCERNED PARTIES INCLUDING THE INTERIOR DESIGNER AND SHALL BE SUBMITTED FOR REVIEW & APPROVAL OF THE ENGINEER ON SITE.

22-EACH RADIATOR SECTION SHALL HAVE HEATING OUTPUT OF 170W AT 50°C TEMPERATURE DIFFERENCE IN CASE THE ACTUALLY SELECTOR RADIATOR HAS DIFFERENT OUTPUT DURING CONSTRUCTION, THE NECESSARY ADJUSTMENT TO THE NUMBER OF SECTIONS SHALL BE MADE.

## WATER SUPPLY GENERAL NOTES

1-THESE DRAWINGS SHALL BE USED FOR WATER SUPPLY PURPOSES ONLY , DO NOT SCALE FROM THESE DRAWINGS.

2-THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS OF DIFFERENT TRADES FOR COORDINATION PURPOSES.

3-ALL EQUIPMENT & FIXTURES SHALL BE APPROVED BEFORE ORDERING.

4-THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THREE SETS OF SHOP DRAWINGS HOWING OPENINGS & SLEEVES IN CONCRETE WALLS & SLABS BEFORE WORK CAN BEGIN. HE SHALL ALSO PREPARE ANOTHER THREE SETS OF SHOP DRAWINGS FOR APPROVAL SHOWING THE SYSTEM EXACTLY IN PLACE.

5-ALL PIPES CROSSING CONCRETE EXPANSION JOINTS SHALL HAVE PIPE EXPANSION JOINTS.

6-THE CONTRACTOR SHALL PREPARE DURING CONSTRUCTION SHOP DRAWINGS SHOWING THE LOCATIONS AND SIZES OF ALL ACCESS PANELS IN FALSE CEILING THAT ARE REQUIRED FOR MAINTENANCE, ADJUSTMENT OR REPLACEMENT OF MECHANICAL ITEMS.THESE SHOP DRAWINGS SHALL BE DONE IN COORDINATION WITH ALL CONCERNED PARTIES INCLUDING THE INTERIOR DESIGNER AND SHALL BE SUBMITTED FOR REVIEW & APPROVAL OF THE ENGINEER.

## FIRE FIGHTING GENERAL NOTES

1-THESE DRAWINGS SHALL BE USED FOR FIRE FIGHTING ONLY, DO NOT SCALE FROM THESE DRAWINGS.

2-THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THREE SETS OF SHOP DRAWINGS SHOWING OPENINGS & SLEEVES IN CONCRETE WALLS & SLABS BEFORE WORK CAN BEGIN. HE SHALL ALSO PREPARE ANOTHER THREE SETS OF SHOP DRAWINGS FOR APPROVAL SHOWING THE SYSTEM EXACTLY IN PLACE.

3-THE CONTRACTOR SHALL PREPARE DURING CONSTRUCTION SHOP DRAWINGS SHOWING THE LOCATIONS AND SIZES OF ALL ACCESS PANELS IN FALSE CEILING THAT ARE REQUIRED FOR MAINTENANCE, ADJUSTMENT OR REPLACEMENT OF MECHANICAL ITEMS.THESE SHOP DRAWINGS SHALL BE DONE IN COORDINATION WITH ALL CONCERNED PARTIES INCLUDING THE INTERIOR DESIGNER AND SHALL BE SUBMITTED FOR REVIEW & APPROVAL OF THE ENGINEER.

## DRAINAGE GENERAL NOTES

1- THESE DRAWINGS SHALL BE USED FOR DRAINAGE PURPOSES ONLY, DO NOT SCALE FROM THESE DRAWINGS.

2- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS OF DIFFERENT TRADES FOR COORDINATION.

3- ALL HORIZONTAL DRAINAGE PIPES IN ALL FLOORS RUN AT CEILING LEVEL BELOW SLAB , EXCEPT WHERE INDICATED OTHERWISE.

4-ALL EQUIPMENT & FIXTURES SHALL BE APPROVED BEFORE ORDERING.

5-THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THREE SETS OF SHOP DRAWINGS SHOWING OPENINGS & SLEEVES IN CONCRETEWALLS & SLABS BEFORE WORK CAN BEGIN. HE SHALL ALSO PREPAREANOTHER THREE SETS OF SHOP DRAWINGS FOR APPROVAL SHOWINGTHE SYSTEM EXACTLY IN PLACE.

6-ALL SLEEVES FOR SANITARY FIXTURES SHOULD BE CHECKED VERSUS THE SELECTED FIXTURES BEFORE POURING CONCRETE.

7- ALL PIPES CROSSING CONCRETE EXPANSION JOINTS SHALL HAVE PIPE EXPANSION JOINTS.

8-ALL PRESSURIZED DRAINAGE PIPES LIKE SUBMERSIBLE PUMPS DISCHARGE SHOULD BE ANCHORED.

9-ALL DRAINAGE PIPES CROSSING THE SLABS AND WALLS SHALL BE PROPERLY SEALED WITH ACCOUSTIC AND FIRE RETARDANT MATERIAL.

10-THE CONTRACTOR SHALL PREPARE DURING CONSTRUCTION SHOP DRAWINGS SHOWING THE LOCATIONS AND SIZES OF ALL ACCESS PANELS IN FALSE CEILING THAT ARE REQUIRED FOR MAINTENANCE, ADJUSTMENT OR REPLACEMENT OF MECHANICAL ITEMS.THESE SHOP DRAWINGS SHALL BE DONE IN COORDINATION WITH ALL CONCERNED PARTIES INCLUDING THE INTERIOR DESIGNER AND SHALL BE SUBMITTED FOR REVIEW & APPROVAL OF THE ENGINEER.

NOTES

| No. | REVISION | APP'D | DATE |
|---|---|---|---|

CLIENT

الجمهورية اللبنانية
مجلس الإنماء والإعمار

CONSULTANT

خطيب وعلمي
شركة خطيب وعلمي للاستشارات الهندسية
Khatib & Alami
consolidated engineering company S.A.L

PROJECT TITLE

CHHIM GOVERNMENTAL OFFICES BUILDING

DRAWING TITLE

LEGEND , GENERAL NOTES AND LIST OF MECHANICAL DRAWINGS

| | NAME | DRAWING No. |
|---|---|---|
| DESIGNED | W.H | M-00 |
| DRAWN | I.F | |
| COORDINATED | H. JARRAH | PROJECT No. |
| CHECKED | Y.K | BY151600 |
| APPROVED | Y.K | |
| SCALE | AS SHOWN | FILE NAME |
| DATE | February 2016 | BY1516-GNL-00 |

APPROVED FOR CONSTRUCTION — SHEET No.

TENDER SUBMISSION