#### Shillong Smart City Limited Shillong, Meghalaya

#### **Bidding Document**

#### for

GRID CONNECTED ROOF TOP SOLAR PHOTO-VOLTAIC SYSTEM AT VARIOUS BUILDINGS IN SHILLONG, EAST KHASI HILLS DISTRICT, MEGHALAYA UNDER SMART CITIES MISSION

#### **Section 6: Drawings**

Tender No.: SSCL/Tender/2020-21/MEG-SHI-012

#### Office of the Shillong Smart City Limited

House No. C/B-037, Top Floor, Centre Nongrim Hills, Near JJ Cables, Shillong, East Khasi Hills District, Meghalaya – 793003 Bidding Document for Grid Connected Roof Top Solar Photo-Voltic system for various buildings in Shillong, East Khasi Hills District, Meghalaya under Smart Cities Mission

#### List of Buildings under Project

Bidding Document for Grid Connected Roof Top Solar Photo-Voltic system for various buildings in Shillong, East Khasi Hills District, Meghalaya under Smart Cities Mission

| S.<br>No. | Name of the building   | Concerned Department/ Agency                  | Jurisdiction  | Available Roof<br>Top Area<br>(Sqm) @90%<br>of total roof<br>area identified<br>for solar<br>installation | Capacity<br>of Solar<br>Plant<br>(KWp) |
|-----------|--|---|---------------|---|--|
| 1         | Raitong Building   | Urban Affairs Department                      | State Govt.   | 415.80  | 42.00                                  |
| 2         | State Disaster Management Authority                                | Revenue and Disaster Management<br>Department | State Govt.   | 236.19  | 6.00                                   |
| 3         | Secretariat, Government of Meghalaya                               | Secretariat Administration Department         | State Govt.   | 882.54  | 88.00                                  |
| 4         | 3 <sup>rd</sup> Secretariat Building                               | Secretariat Administration Department         | State Govt.   | 812.70  | 81.00                                  |
| 5         | Directorate of Printing and Stationery, Government of Meghalaya    | Printing and Stationery Department            | State Govt.   | 2,195.10  | 189.00                                 |
| 6         | Office of the Chief Commissioner of Income Tax                     | Income Tax Department                         | Central Govt. | 811.44  | 81.00                                  |
| 7         | BSNL Circle Office   | BSNL  | Central Govt. | 882.00  | 88.00                                  |
| 8         | National Informatics Centre (NIC)                                  | Department of IT&C, Govt. of Meghalaya        | State Govt.   | 352.49  | 35.00                                  |
| 9         | Office of Public Works Department (PWD)                            | Public Works Department                       | State Govt.   | 622.80  | 62.00                                  |
| 10        | Office of Public Health and Engineering Department (PHED)          | Public Health and Engineering Department      | State Govt.   | 986.90  | 99.00                                  |
| 11        | Jawaharlal Nehru Stadium   | Shillong Recreational Grounds Trust<br>(SRGT) | State Govt.   |   |  |
| 12        | State Sports Council, District Sports Complex (Indoor Stadium)     | Department of Sports and Youth Affairs        | State Govt.   | 9,252.72  | 925.00                                 |
| 13        | Indoor Training Hall, Polo, Shillong                               | Department of Sports and Youth Affairs        | State Govt.   |   |  |
| 14        | The Meghalaya Co-Operative Apex Bank Ltd, Police Bazar             | The Meghalaya Co-Operative Apex Bank<br>Ltd.  | State Govt.   | 351.00  | 35.00                                  |
| 15        | Director of Account (Postal) - DAP                                 | Postal and Communication Department           | Central Govt. | 919.54  | 92.00                                  |
| 16        | District Transport Office  | Transport Department                          | State Govt.   | 523.09  | 25.00                                  |
| 17        | High Court of Meghalaya  | High Court                                    | State Govt.   | 1,375.61  | 138.00                                 |
| 18        | Meghalaya Public Service Commission Office, Horse Shoe<br>Building | Public Service Commission                     | State Govt.   | 1,275.93  | 100.00                                 |
| 19        | State Central Library, Captain Williamson Sangma State Museum      | Department of Art and Culture                 | State Govt.   | 2,002.50  | 200.00                                 |
| 20        | SSA Football Ground  | Shillong Recreational Grounds Trust<br>(SRGT) | State Govt.   | 2,361.52  | 236.00                                 |
| 21        | Meghalaya Urban Development Authority Complex                      | Meghalaya Urban Development Authority         | State Govt.   | 604.80  | 60.00                                  |

Details of buildings identified for Grid connect Solar PV System.

Shillong Smart City Limited

Tender No. SSCL/Tender/2020-21/MEG-SHI-25 2

2

Bidding Document for Grid Connected Roof Top Solar Photo-Voltic system for various buildings in Shillong, East Khasi Hills District, Meghalaya under Smart Cities Mission

| S.<br>No. | Name of the building  | Concerned Department/ Agency                 | Jurisdiction | Available Roof<br>Top Area<br>(Sqm) @90%<br>of total roof<br>area identified<br>for solar<br>installation | Capacity<br>of Solar<br>Plant<br>(KWp) |
|-----------|---|--|--------------|---|--|
| 22        | Vendors Market  | Shillong Municipal Board (SMB)               | State Govt.  | 1,485.00  | 149.00                                 |
| 23        | Regional office of Meghalaya Board of Secondary Education<br>(MBOSE)<br>Meghalaya State Law Commission<br>Office of the District Treasury Officer | MBOSE and Law Department                     | State Govt.  | 826.52  | 10.00                                  |
| 24        | Office of the Director General of Police (DGP)  | Police Department                            | State Govt.  | 270.00  | 27.00                                  |
| 25        | Pine Mount School   | Directorate of School Education and Literacy | State Govt.  | 681.30  | 13.00                                  |
| 26        | Shillong Public School  | Directorate of School Education and Literacy | State Govt.  | 635.40  | 14.00                                  |
| 27        | Directorate of Higher technical Education   | Directorate of Higher & Technical Education  | State Govt.  | 306.00  | 9.00                                   |
| 28        | EMBOSE GUEST HOUSE  | Directorate of School Education and Literacy | State Govt.  | 72.90   | 4.00                                   |
| 29        | Directorate of School Education and Literacy  | Directorate of School Education and Literacy | State Govt.  | 643.50  | 21.00                                  |
| 30        | Government Girl's Higher Secondary School   | Directorate of School Education and Literacy | State Govt.  | 229.50  | 12.00                                  |
| 31        | Government Boy's Higher Secondary School  | Directorate of School Education and Literacy | State Govt.  | 867.60  | 10.00                                  |
| 32        | Office complex of Meghalaya State Warehousing Corporation   | Meghalaya State Warehousing Corporation      | State Govt.  | 180.00  | 7.00                                   |
| 33        | Annexe Building to High Court   | High Court                                   | State Govt.  | 900.00  | 90.00                                  |
| 34        | Office of the Transport Commissioner  | Transport Department                         | State Govt.  | 162.00  | 10.00                                  |
| 35        | Proposed new Multi-Level Car Parking at Motphran  | Shillong Smart City Limited                  | State Govt.  | 450.00  | 45.00                                  |
| 36        | Existing Multilevel Parking Building at Khlieh lew  | MUDA   | State Govt.  | 2,304.00  | 230.00                                 |
| 37        | Existing Multilevel Parking Building at Mowlonghat  | Shillong Municipal Board (SMB)               | State Govt.  | 2,025.00  | 203.00                                 |
| 38        | Existing Multilevel Parking Building opposite to Anjalee Galleria   | Shillong Municipal Board (SMB)               | State Govt.  | 2,160.00  | 216.00                                 |
| 39        | Proposed Commercial Complex at Polo   | Shillong Smart City Limited                  | State Govt.  | 1,800.00  | 180.00                                 |
| 40        | Proposed Building for Integrated Command and Control<br>Centre (ICCC)   | Shillong Smart City Limited                  | State Govt.  | 405.00  | 41.00                                  |
| 41        | Proposed Laitumkhrah Market   | Shillong Municipal Board (SMB)               | State Govt.  | 1,350.00  | 135.00                                 |
|           | Total Area  |  |              | 44,618.37   | 4,008.00                               |
|           |   |  |              |   | 4 MWp                                  |

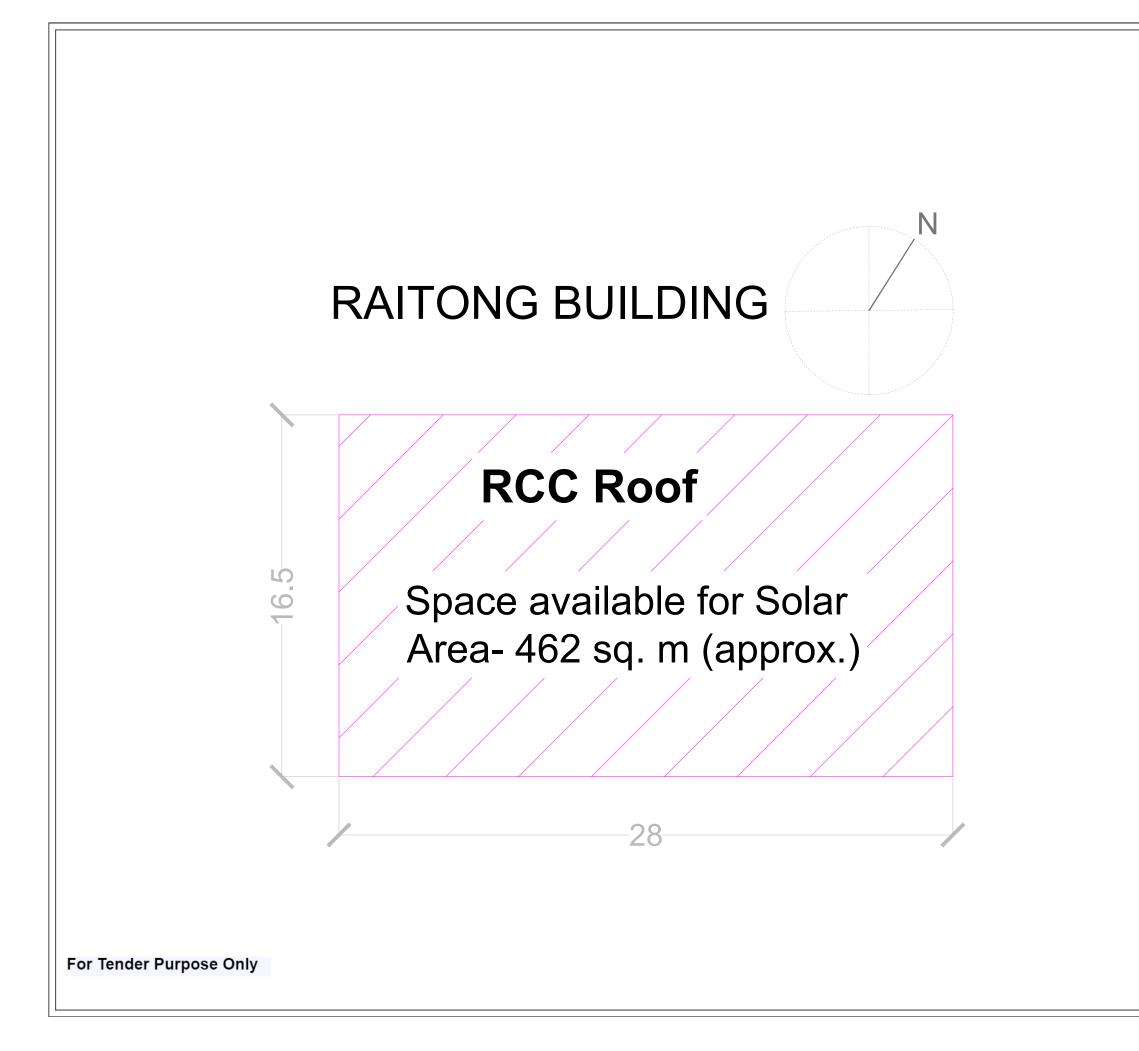
\* Please Note: The list of buildings given above is as per the current requirement, the same is subject to change at any time at the discretion of the Employer.

Shillong Smart City Limited

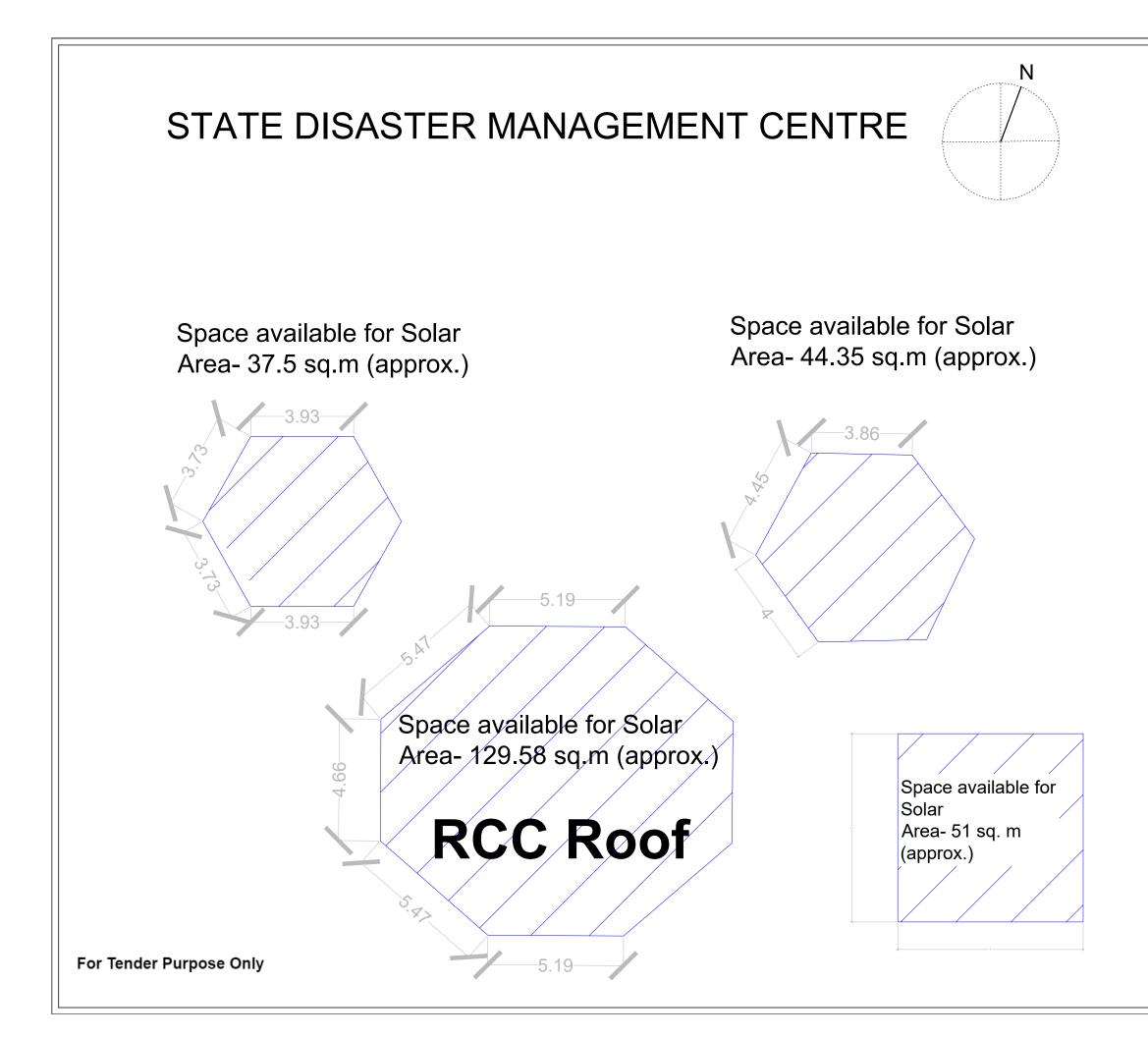
3

Bidding Document for Grid Connected Roof Top Solar Photo-Voltic system for various buildings in Shillong, East Khasi Hills District, Meghalaya under Smart Cities Mission

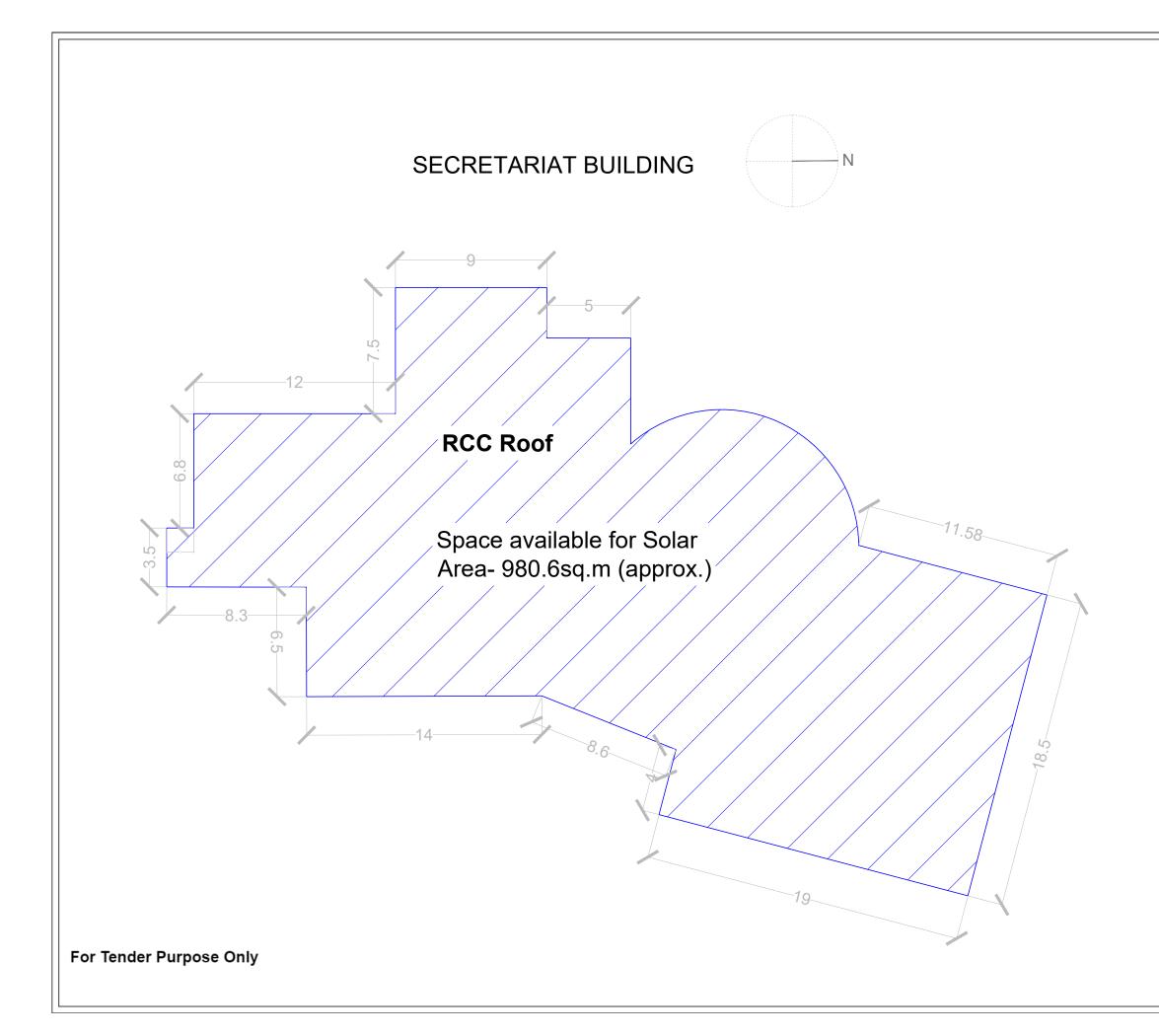
#### **Roof Plans of Buildings**



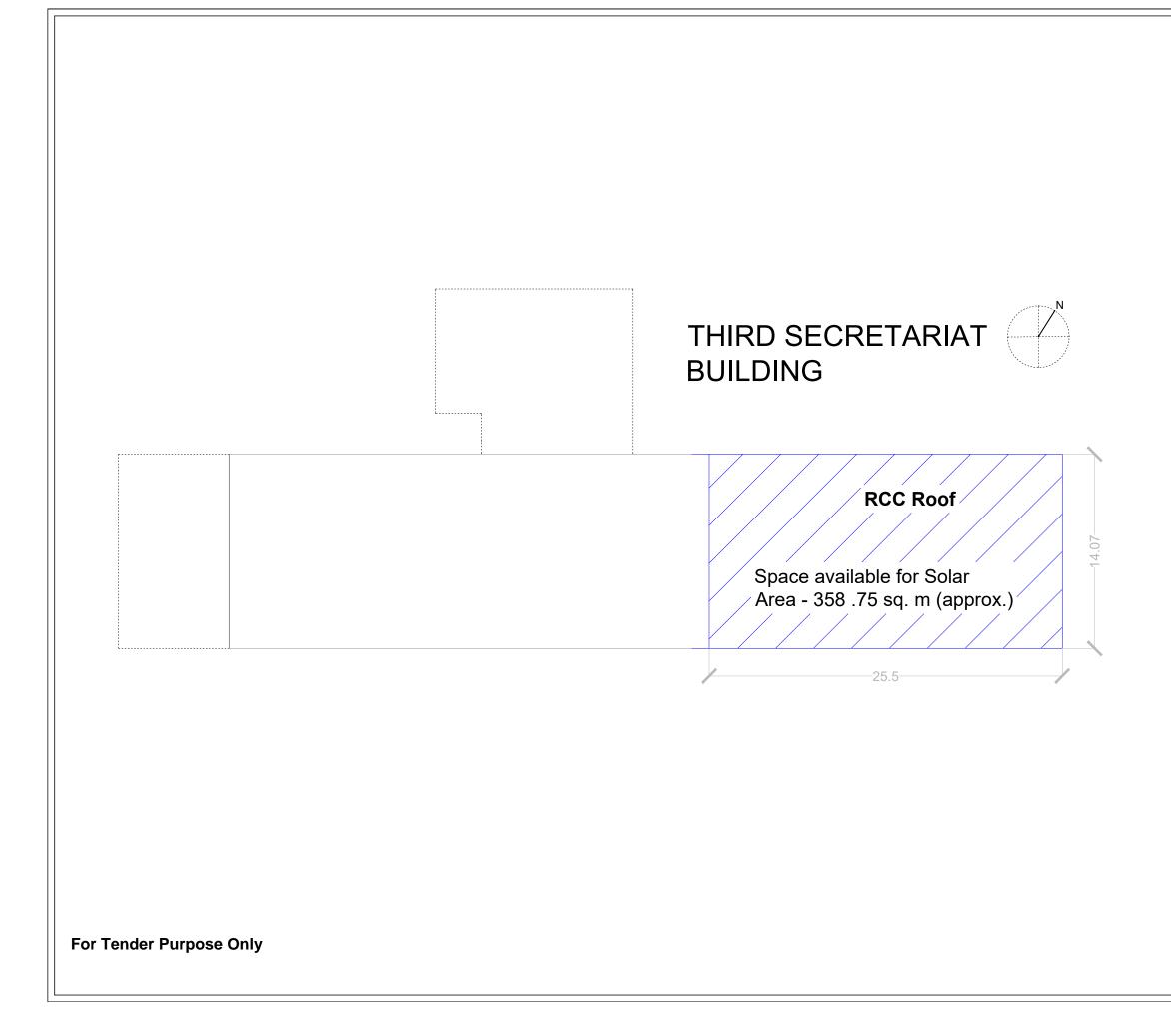
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, Soltz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3. and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 65022 / IS 1554. Temp range-10 deg. C to +80 Deg. C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
| METEL SHEET ROOF (GOOD CONDITION)   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
|   |
|   |
|   |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |
| REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR RAITONG BUILDING   |
| Date: PREPARED :  |
| 16-05-2022 CHECKED :  |
| Scale         Sheet Size         M. MUSHTAQ KHAN           NTS         A3         APPROVED :<br>ABHILASH VERMA  |
| DRAWING NO: REVISION  |
| 5.3.0000  |



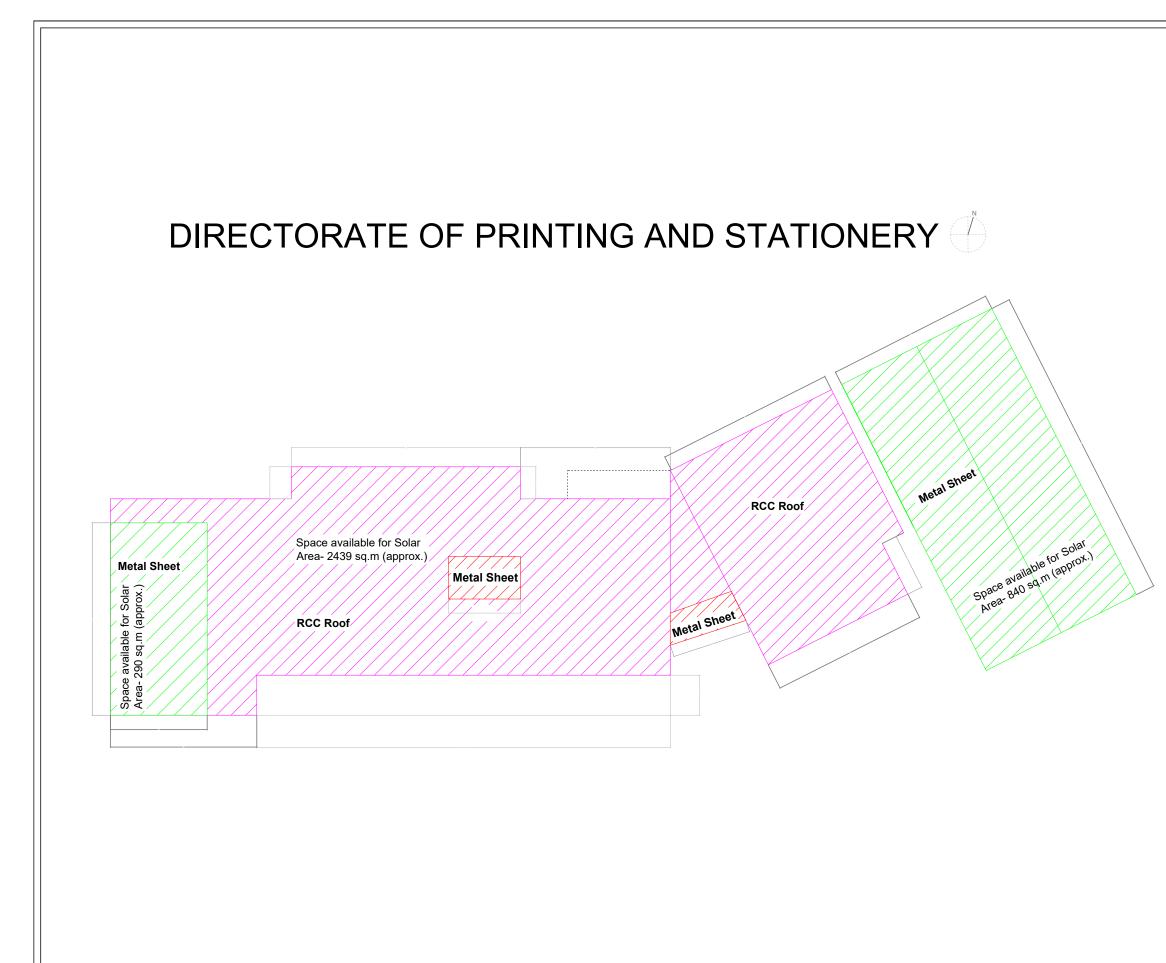
| <ul> <li>61730 Part-1, IS / II</li> <li>4. Solar PV Modue c</li> <li>5. Power Conditionir<br/>400VAC, 3Ph, 4wii</li> <li>6. All switches &amp; the</li> </ul> | conversion efficiency shall no<br>ng Unit (PCU) of 350-800 VDC<br>re, 50Hz.<br>circuit breakers. connectors   | ed.<br>286 / IEC 61215, IS / IEC<br>t be less tha 16.5%.<br>Input Voltage range and |
|---|---|---|
| <ol> <li>DC DPB's shall hav<br/>IP65 Protection.</li> <li>The Mounting Stru-<br/>galvanization of th<br/>4759.</li> <li>Cable of appropri</li> </ol>          | \$ 60947 Part-1, 2 & 3,<br>we sheet encosers of dust & V<br>incluresteel shall be as per lath<br>he mounting structure shall c<br>iate size to be used in the syst                                      | est IS 2062:1992 &<br>ompliance of latest IS<br>item shall meet IEC 60227 /         |
| 10. Danger Board sho<br>IE Rules.   | IS 1554. Temp range-10 deg  |   |
|   | :<br>LOCATION / AREA<br>FO-VOLTAIC CELL   |   |
| Notes:  |   |   |
| RCC F   | ROOF (GOOD CONI   | DITION)   |
| RCC F   | ROOF (BAD CONDI   | TION)   |
| METEI   | L SHEET ROOF (G   | OOD CONDITION)  |
| METE  | L SHEET ROOF (B/  | AD CONDITION)   |
| Submitted by  |   |   |
| Consultant  | NG SMART CI   |   |
| IP  | E GLOBAL LIA  | AITED   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   | ECTED ROOFTOP S<br>STEM AT VARIOUS  |   |
| GRID CONNE  | CTED ROOFTOP  |   |
| GRID CONNE  | CTED ROOFTOP  |   |
| GRID CONNE<br>VOLTAIC SYS   | ECTED ROOFTOP S<br>STEM AT VARIOUS  | S BUILDINGS   |
| GRID CONNE<br>VOLTAIC SYS   | CTED ROOFTOP S<br>STEM AT VARIOUS   | S BUILDINGS   |
| GRID CONNE<br>VOLTAIC SYS<br>REV. DAT<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM  | ECTED ROOFTOP S<br>STEM AT VARIOUS<br>  | BUILDINGS   |
| GRID CONNE<br>VOLTAIC SYS<br>REV. DAT<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM  | CTED ROOFTOP S<br>STEM AT VARIOUS<br>   | BUILDINGS   |
| GRID CONNE<br>VOLTAIC SYS<br>REV. DAT<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM  | CTED ROOFTOP S<br>STEM AT VARIOUS<br>-22 HARD COP<br>-22 HARD COP<br>TE DESCRIPTI<br>INDEX<br>TITLE:<br>-0CATION FOR SC<br>1 FOR STATE DISA<br>VT AUTHORITY<br>Date: P<br>16-05-2022 C                  | S BUILDINGS   |
| R0 16-05<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM   | CTED ROOFTOP S<br>STEM AT VARIOUS<br>   | BUILDINGS   |
| R0 16-05<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM   | CTED ROOFTOP S<br>STEM AT VARIOUS<br>-22 HARD COP<br>TE DESCRIPTI<br>INDEX<br>TITLE:<br>COCATION FOR SC<br>1 FOR STATE DISA<br>IT AUTHORITY<br>Date:<br>16-05-2022<br>C<br>Scale Sheet Size<br>NTS A3 A | S BUILDINGS   |



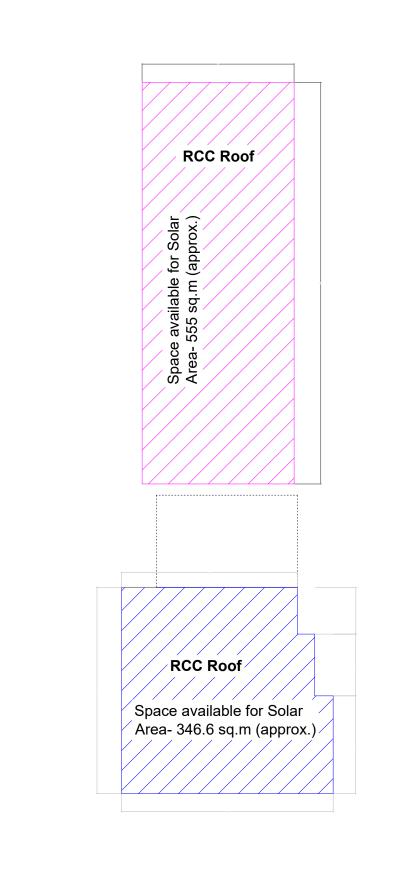
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 6130 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range: 400VAC, 3Ph, 4Wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IEC 60 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60 IS 8/4, IEC 60502 / 15 154, Temge-10 deg, C to +80 Deg, C</li> <li>10. Danger Board shall be provided as and where necessary as per IE A IE Rules.</li> </ul> | and<br>947<br>5 |
|---|-----------------|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTI<br>SOLAR PHOTO-VOLTAIC CELL   | NG              |
| Notes:  |                 |
| RCC ROOF (GOOD CONDITION)   |                 |
| RCC ROOF (BAD CONDITION)  |                 |
|   | DN)             |
| METEL SHEET ROOF (BAD CONDITION   | )               |
| Submitted by  |                 |
| SHILLONG SMART CITY LIMITED   |                 |
| IPE GLOBAL LIMITED  |                 |
|   |                 |
|   |                 |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS<br>R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPRO<br>REVISION INDEX  |                 |
|   |                 |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR SECRETARIAT,<br>GOVERNMENT OF MEGHALAYA  |                 |
| Date: PREPARED :<br>AZEL MESHA J KHARBHIH   |                 |
| 16-05-2022 CHECKED :<br>Scale Sheet Size M.MUSHTAQ KHAN   |                 |
| NTS A3 APPROVED :<br>ABHILASH VERMA   |                 |
| DRAWING NO:   | I               |
| 1   | I               |



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> </ol> </li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL<br>Notes:   |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
|   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
|   |
|   |
|   |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |
| REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR 3rd SECRETARIAT<br>BUILDING  |
| Date: PREPARED :  |
| 16-05-2022 CHECKED :  |
| Scale         Sheet Size         M.MUSHTAQ KHAN           NTS         A3         APPROVED :   |
|   |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/04 R 0   |
|   |



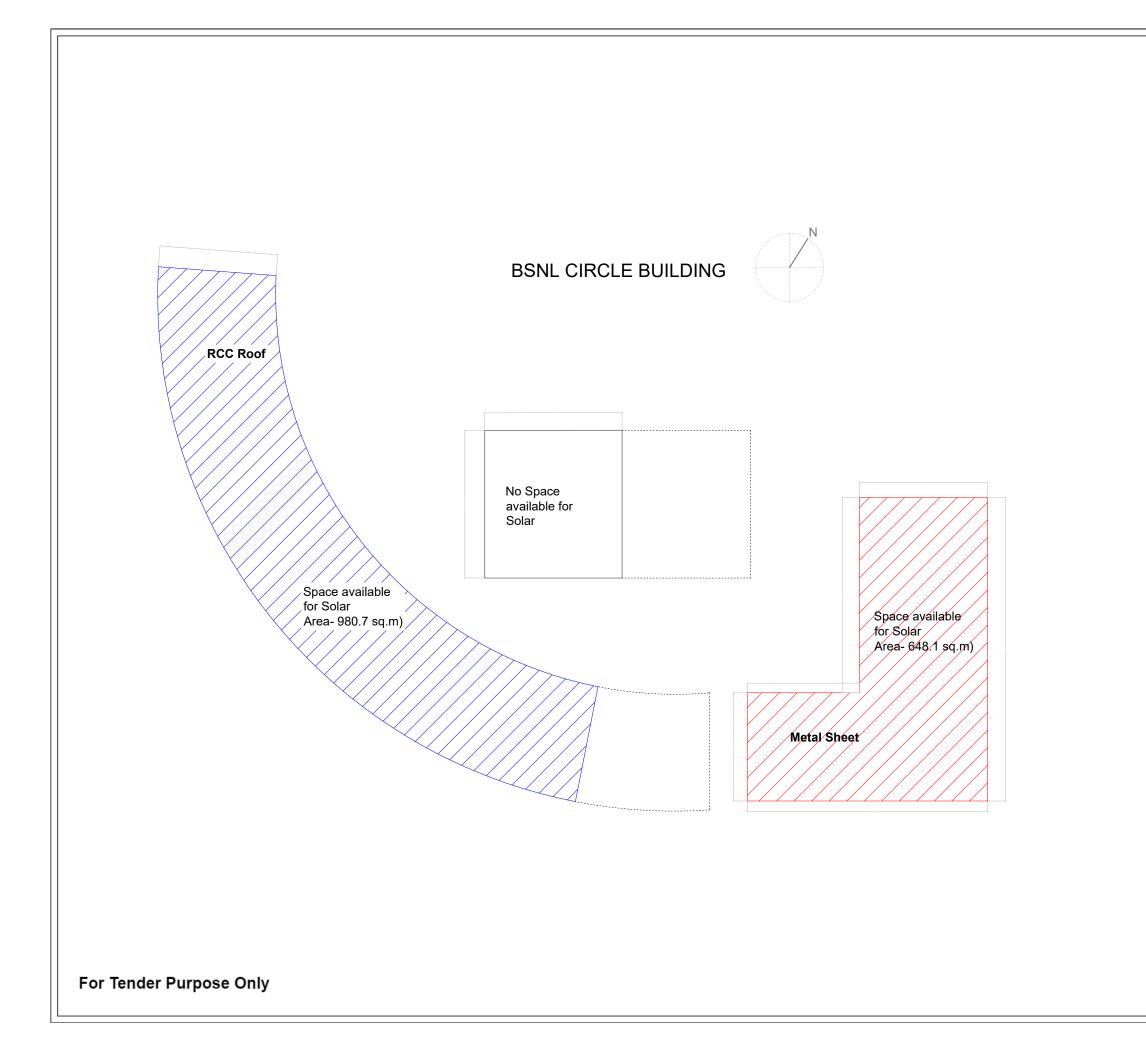
| GENERAL NOT<br>1. All dimensions are in<br>2. Dimensions are to to<br>3. Solar Photo Voltaic<br>61730 Part-1, IS / IEC<br>4. Solar PV Modue co<br>5. Power Conditioning<br>400VAC, 3Ph, 4wire | n meters, if otherwise s<br>be read and not to be<br>module confirming to<br>C 61730 Part-2.<br>nversion efficiency sho<br>g Unit (PCU) of 350-800 | scaled.<br>IS 14286 / IE<br>Ill not be les | s tha 16.5%.                   |
|---|--|--|--------------------------------|
| <ol> <li>All switches &amp; the c<br/>Part-1, 2 &amp; 3 and IS</li> <li>DC DPB's shall have<br/>IP65 Protection.</li> <li>The Mounting Struct</li> </ol>                                      | ircuit breakers. connec<br>60947 Part-1, 2 &3.<br>e sheet encosers of dus  | t & Vermin p<br>er latest IS 20            | proof confirm to<br>162:1992 & |
| <ol> <li>Cable of appropria<br/>IS 694, IEC 60502 / IS<br/>10. Danger Board shall<br/>IE Rules.</li> </ol>  | 3 1554. Temp range-10  | deg.C to +8                                | 80 Deg. C                      |
| LEGENDS:<br>PROPOSED LI<br>SOLAR PHOT   | OCATION / AR<br>O-VOLTAIC CE   |  | MOUNTING                       |
| Notes:  |  |  |                                |
| RCC RC  | DOF (GOOD C  | ONDITIC                                    | DN)                            |
|   | OOF (BAD CON   | DITION                                     | )                              |
| METEL   | SHEET ROOF   | (GOOD                                      | CONDITION)                     |
| METEL   | SHEET ROOF   | (BAD C                                     | ONDITION)                      |
| Submitted by  | GSMART   |  | IMITED                         |
| Consultant  |  |  |                                |
| IP  | GLOBAL   |  | :D                             |
|   |  |  |                                |
|   |  |  |                                |
|   |  |  |                                |
|   |  |  |                                |
| PROJECT:<br>GRID CONNEC<br>VOLTAIC SYS  | CTED ROOFTC  |  |                                |
|   |  |  |                                |
|   |  |  |                                |
| R0 16-05-2  | 22 HARD C  |  | A.V.                           |
| REVISION I  |  | Horr                                       |                                |
| DRAWING T<br>PROPOSED LO<br>TOP SYSTEM<br>PRINTING AND<br>OF MEGHALA  | DCATION FOR<br>FOR DIRECTO<br>D STATIONER  | RATE                                       | DF                             |
|   | Date:<br>16-05-2022  | PREPAR<br>AZEL MESH                        | ED :<br>A J KHARBHIH           |
|   | Scale Sheet Size   | CHECKE<br>M. MUSHTA                        | Q KHAN                         |
|   | A 2  | APPRO\                                     | /ED :                          |
|   | NTS A3   | ABHILASH \                                 | /ERMA                          |
| DRAWING I   | NO:  | ABHILASH                                   | REVISION                       |



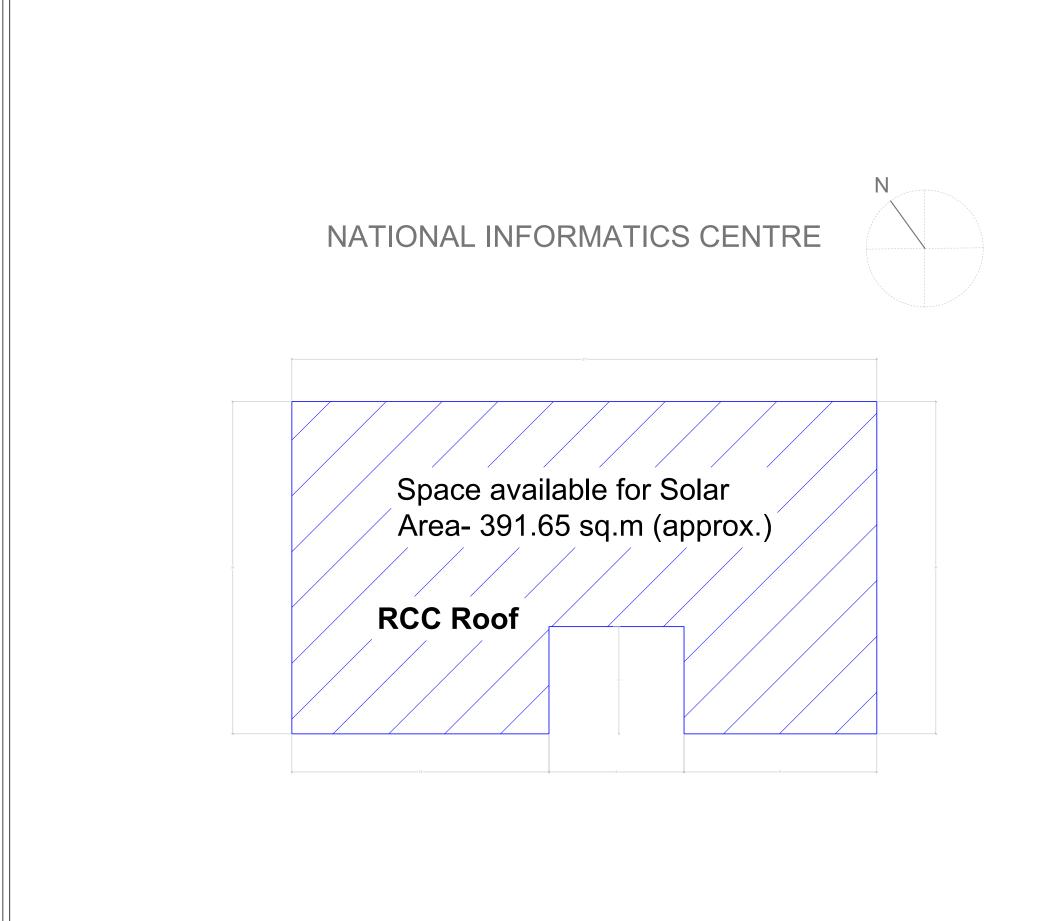
O/o. CHIEF COMMISSIONER OF INCOME TAX



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are to be read and not to be scaled.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less that 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062;1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554, Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol></li> </ol> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
|  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| IPE GLOBAL LIMITED   |
|  |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
|  |
| R0 16-05-22 HARD COPY A.V.   |
| REV. DATE DESCRIPTION APPROV.  |
| REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR OFFICE OF THE CHIEF<br>COMMISSIONER OF INCOME TAX   |
| Date: PREPARED :<br>16-05-2022   |
| CHECKED :<br>Scale Sheet Size M. MUSHTAQ KHAN  |
| NTS A3 APPROVED :<br>ABHILASH VERMA  |
| DRAWING NO:  |
| IPE/SSCL/MEG-SH/SOLAR/06 R 0   |



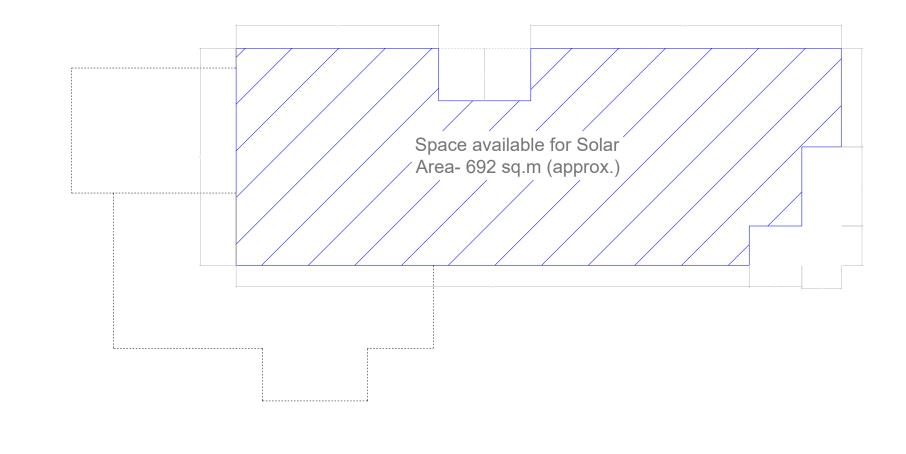
| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 644, IEC 60502 / IS 1554. Temp range-10 deg. C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
| METEL SHEET ROOF (GOOD CONDITION)  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| IPE GLOBAL LIMITED   |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
| R016-05-22HARD COPYA.V.REV.DATEDESCRIPTIONAPPROV.REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR BSNL CIRCLE OFFICE  |
| Date:         PREPARED :           16-05-2022         AZEL MESHAJ KHARBHIH           Scale         Sheet Size           NTS         A3   |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/07 R 0  |



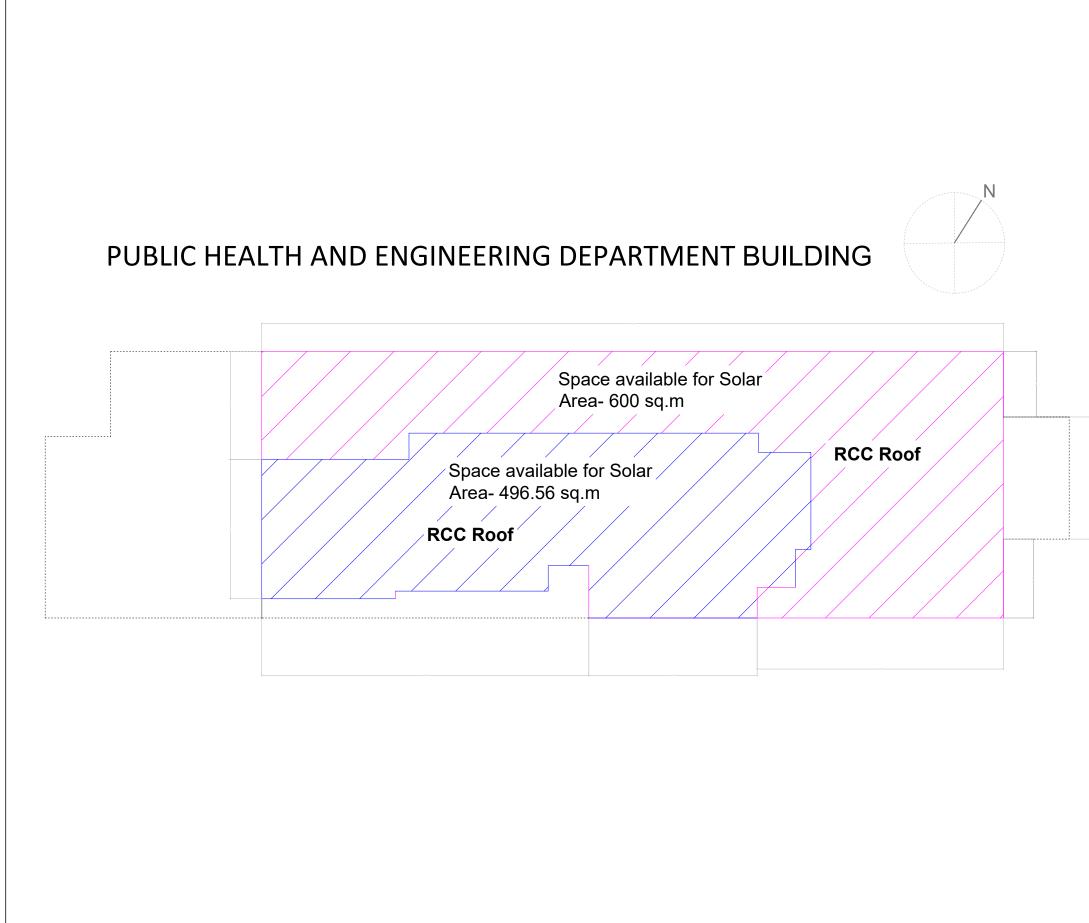
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input V 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall con Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin p IPAS Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 200 galvanization of the mounting structure shall complian 4759.</li> <li>9. Cable of appropriate size to be used in the system shall is 644. IEC 60502 / IS 1554. Temp range-10 deg. C to +88</li> <li>10. Danger Board shall be provided as and where necessal IE Rules.</li> </ul> | tha 16.5%.<br>oltage range and<br>nfirm to IEC 60947<br>roof confirm to<br>52:1992 &<br>ice of latest IS<br>all meet IEC 60227 /<br>0 Deg. C |
|---|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR<br>SOLAR PHOTO-VOLTAIC CELL  | MOUNTING   |
| Notes:  |  |
| RCC ROOF (GOOD CONDITIO   | N)   |
| RCC ROOF (BAD CONDITION)  |  |
|   | CONDITION)   |
| METEL SHEET ROOF (BAD CO  | ONDITION)  |
|   |  |
| SHILLONG SMART CITY L   | IMITED   |
| IPE GLOBAL LIMITE   | D  |
|   |  |
|   |  |
|   |  |
|   |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLA<br>VOLTAIC SYSTEM AT VARIOUS BUI  |  |
|   |  |
|   |  |
| R016-05-22HARD COPYREV.DATEDESCRIPTION  | A.V.<br>APPROV.  |
| REVISION INDEX  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR<br>TOP SYSTEM FOR NATIONAL INFOR<br>CENTRE (NIC)  |  |
| Date: PREPARI   | ED :<br>A J KHARBHIH   |
| 16-05-2022<br>CHECKEI<br>Scale Sheet Size M. MUSHTAC  |  |
| NTS A3 APPROV   |  |
| DRAWING NO:   | REVISION   |
| IPE/SSCL/MEG-SH/SOLAR/08  |  |



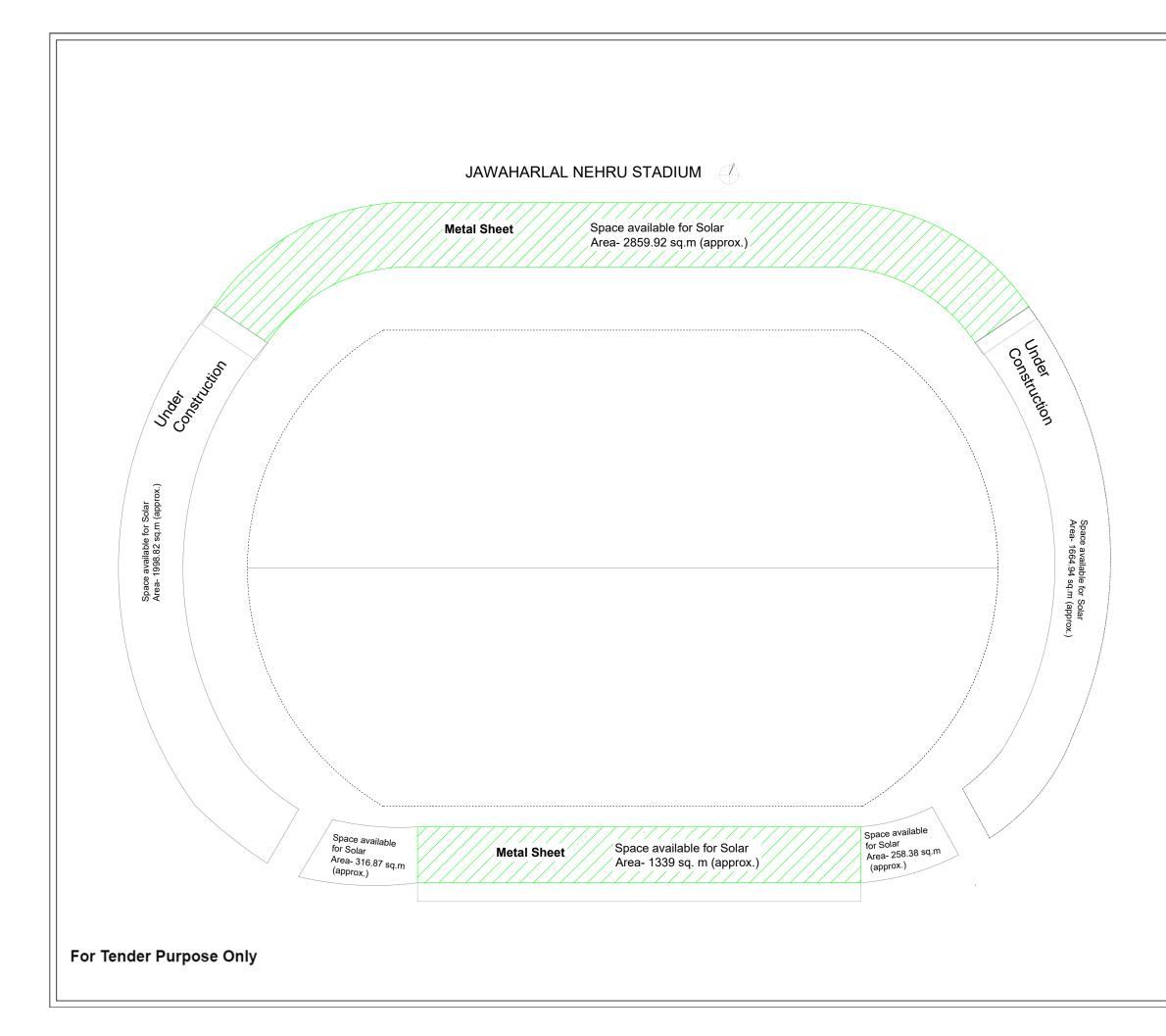




|  | in meters, if otherwise spe<br>be read and not to be sco<br>c module confirming to IS   |                                 |
|--|---|---------------------------------|
| <ol> <li>Power Conditionir<br/>400VAC, 3Ph, 4wir</li> </ol>              | EC 61730 Part-2.<br>conversion efficiency shall r<br>ng Unit (PCU) of 350-800 VE<br>re, 50Hz.   |                                 |
| Part-1, 2 & 3 and 1<br>7. DC DPB's shall hav<br>IP65 Protection.         | S 60947 Part-1, 2 &3.<br>ve sheet encosers of dust 8  | Vermin proof confirm to         |
| galvanization of th<br>4759.   | cturesteel shall be as per lone mounting structure shall<br>iate size to be used in the s   |                                 |
| IS 694, IEC 60502 /  | IS 1554. Temp range-10 de   |                                 |
| LEGENDS:   |   |                                 |
| PROPOSED I   |   | A FOR MOUNTING<br>L             |
| Notes:   |   |                                 |
| RCC F  | ROOF (GOOD COI  | NDITION)                        |
| RCC F  | ROOF (BAD CONE  | DITION)                         |
| METEI  | _SHEET ROOF (   | GOOD CONDITION)                 |
|  | L SHEET ROOF (I   | BAD CONDITION)                  |
|  | NG SMART C  | ITY LIMITED                     |
| Consultant   | E GLOBAL LI   | MITED                           |
|  |   |                                 |
|  |   |                                 |
| DRO IECT.  |   |                                 |
|  | CTED ROOFTOF  | P SOLAR PHOTO -<br>JS BUILDINGS |
| R0 16-05-  | 22 HARD CO  | JS BUILDINGS                    |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM | -22 HARD CC<br>TE DESCRIPT<br>INDEX   | US BUILDINGS                    |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM | 22 HARD CO<br>22 HARD CO<br>TE DESCRIPT<br>INDEX<br>TITLE:<br>OCATION FOR S<br>I FOR OFFICE OF<br>ARTMENT (PWD)<br>Date:  | US BUILDINGS                    |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM | -22 HARD CO<br>-22 HARD CO<br>TE DESCRIPT<br>INDEX<br>TITLE:<br>.OCATION FOR S<br>I FOR OFFICE OF<br>ARTMENT (PWD)  | JS BUILDINGS                    |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>TOP SYSTEM | CALL STEM AT VARIOU<br>ARD CO<br>TE DESCRIPT<br>INDEX<br>TITLE:<br>OCATION FOR S<br>I FOR OFFICE OF<br>ARTMENT (PWD)<br>Date:<br>16-05-2022<br>Scale Sheet Size<br>NTS A3 | JS BUILDINGS                    |



| GENERAL NOTES:   |  |
|--|--|
| <ol> <li>All dimensions are in meters, if</li> <li>Dimensions are to be read and</li> <li>Solar Photo Voltaic module co</li> </ol>   |  |
| 61730 Part-1, IS / IEC 61730 Part-1, IEC 61730 Part | rt-2.<br>fficiency shall not be less tha 16.5%.                                      |
| 400VAC, 3Ph, 4wire, 50Hz.  | ) of 350-800 VDC Input Voltage range and kers. connectors shall confirm to IEC 60947 |
| Part-1, 2 & 3 and IS 60947 Part-   |  |
| Ű  | nall be as per latest IS 2062:1992 &   |
| 4759.  | g structure shall compliance of latest IS  |
| IS 694, IEC 60502 / IS 1554. Tem   | ap range-10 deg.C to +80 Deg. C<br>ed as and where necessary as per IE Act /         |
| IE Rules.  |  |
|  |  |
|  |  |
| LEGENDS:   |  |
| PROPOSED LOCATIO   | ON / AREA FOR MOUNTING<br>TAIC CELL  |
| Notes:   |  |
| RCC ROOF (G  | GOOD CONDITION)  |
| RCC ROOF (B  | BAD CONDITION)   |
| METEL SHEET  | ROOF (GOOD CONDITION)  |
| METEL SHEET  | ROOF (BAD CONDITION)   |
| Submitted by   |  |
| SHILLONG SM  | ART CITY LIMITED   |
| IPE GLC  | OBAL LIMITED   |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| PROJECT:   |  |
| GRID CONNECTED F   | ROOFTOP SOLAR PHOTO -  |
| GRID CONNECTED F   | ROOFTOP SOLAR PHOTO -<br>T VARIOUS BUILDINGS   |
| GRID CONNECTED F   |  |
| GRID CONNECTED F   |  |
|  |  |
| R0 16-05-22 I  | T VARIOUS BUILDINGS  |
| GRID CONNECTED F<br>VOLTAIC SYSTEM A<br>R0 16-05-22 F  | T VARIOUS BUILDINGS  |
| R0 16-05-22 H<br>REV. DATE DE<br>REVISION INDEX  | T VARIOUS BUILDINGS  |
| R0 16-05-22 H<br>REV. DATE DE<br>REVISION INDEX  | T VARIOUS BUILDINGS  |
| R0 16-05-22 H<br>REV. DATE DE<br>REVISION INDEX<br>DRAWING TITLE:<br>PROPOSED LOCATIO<br>TOP SYSTEM FOR O  | T VARIOUS BUILDINGS  |
| GRID CONNECTED F<br>VOLTAIC SYSTEM AT<br>R0 16-05-22 F<br>REV. DATE DE<br>REVISION INDEX<br>DRAWING TITLE:<br>PROPOSED LOCATIO<br>TOP SYSTEM FOR O<br>HEALTH AND ENGINI<br>(PHED)  | T VARIOUS BUILDINGS  |
| GRID CONNECTED F<br>VOLTAIC SYSTEM AT<br>R0 16-05-22 H<br>REV. DATE DE<br>REVISION INDEX<br>DRAWING TITLE:<br>PROPOSED LOCATIO<br>TOP SYSTEM FOR O<br>HEALTH AND ENGINI<br>(PHED)  | T VARIOUS BUILDINGS  |
| GRID CONNECTED F         VOLTAIC SYSTEM AT         R0         16-05-22         REV.         DATE         DE         REVISION INDEX         DRAWING TITLE:         PROPOSED LOCATIO         TOP SYSTEM FOR O         HEALTH AND ENGINI         (PHED)   | T VARIOUS BUILDINGS  |
| GRID CONNECTED F<br>VOLTAIC SYSTEM AT<br>R0 16-05-22 H<br>REV. DATE DE<br>REVISION INDEX<br>DRAWING TITLE:<br>PROPOSED LOCATIO<br>TOP SYSTEM FOR O<br>HEALTH AND ENGINE<br>(PHED)<br>Date:<br>16-05-<br>Scale<br>NTS   | T VARIOUS BUILDINGS  |
| GRID CONNECTED F<br>VOLTAIC SYSTEM AT<br>R0 16-05-22 H<br>REV. DATE DE<br>REVISION INDEX<br>DRAWING TITLE:<br>PROPOSED LOCATIO<br>TOP SYSTEM FOR O<br>HEALTH AND ENGINI<br>(PHED)<br>Date:<br>16-05-<br>Scale  | T VARIOUS BUILDINGS  |



|  |   | 1                    |
|--|---|----------------------|
| GENERAL NOTE                                       |   |                      |
|  | neters, if otherwise specified.<br>read and not to be scaled. |                      |
| 3. Solar Photo Voltaic m                           | odule confirming to IS 14286 / IB                             | EC 61215, IS / IEC   |
| 61730 Part-1, IS / IEC 6<br>4. Solar PV Modue conv | el 730 Part-2.<br>ersion efficiency shall not be le:          | is tha 16.5%.        |
| 5. Power Conditioning U                            | nit (PCU) of 350-800 VDC Input                                |                      |
| 400VAC, 3Ph, 4wire, 5                              | 0Hz.<br>uit breakers. connectors shall c                      | onfirm to IEC 60947  |
| Part-1, 2 & 3 and IS 60                            |   |                      |
|  | neet encosers of dust & Vermin                                | proof confirm to     |
| IP65 Protection.<br>8. The Mounting Structure      | resteel shall be as per latest IS 2                           | 062:1992 &           |
| galvanization of the n                             | nounting structure shall complic                              |                      |
| 4759.<br>9. Cable of appropriate                   | size to be used in the system sh                              | all meet IEC 60227 / |
|  | 554. Temp range-10 deg.C to +                                 |                      |
| 10. Danger Board shall be<br>IE Rules.             | e provided as and where neces                                 | sary as per IE Act / |
| it rolos.  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
| LEGENDS:   |   |                      |
|  |   |                      |
|  | CATION / AREA FOF   | R MOUNTING           |
| SOLAR PHOTO  | -VOLTAIC CELL   |                      |
| Notos  |   |                      |
| Notes:   |   |                      |
|  |   |                      |
| RCC RO   | OF (GOOD CONDITIO   | DN)                  |
|  |   |                      |
| RUC RU   | OF (BAD CONDITION   | )                    |
|  |   |                      |
| METELS   | HEET ROOF (GOOD   | CONDITION)           |
| METEL S  | HEET ROOF (BAD C  |                      |
|  | TILLI NOOT (DAD C   | ONDITION)            |
| Submitted by                                       |   |                      |
| SHILLONG   | SMART CITY  |                      |
|  | 3 SIMARI CITTI  |                      |
| Consultant   |   |                      |
| IPE  | GLOBAL LIMITE   | D                    |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
| PROJECT:   |   |                      |
|  |   |                      |
|  | TED ROOFTOP SOL   |                      |
| VOLTAIC SYST                                       | EM AT VARIOUS BU  | ILDINGS              |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
|  |   |                      |
| R0 16-05-22  |   | A.V.                 |
| REV. DATE  | DESCRIPTION   | APPROV.              |
| <b>REVISION IN</b>                                 |   |                      |
|  |   |                      |
|  |   |                      |
| DRAWING TI   |   |                      |
|  | CATION FOR SOLAF  |                      |
|  | OR JAWAHARLAL N   | EHRU                 |
| STADIUM  |   |                      |
|  |   |                      |
|  | Date: PREPAR  |                      |
| 1  | .6-05-2022  | HA J KHARBHIH        |
|  | CHECKI  |                      |
|  |   |                      |
|  | NTS A3 APPRO<br>ABHILASH                                      |                      |
|  |   |                      |
| DRAWING N  | 0:  | REVISION             |
|  |   | R 0                  |
| IPE/SSCL/MEG-S                                     | II/ JOLAN/ULL   |                      |
| IPE/SSCL/IVIEG-S                                   | III SOLAN UII   | IX U                 |

### STATE'S SPORTS COUNCIL (INDOOR STADIUM)

Space available for Solar Area- 173.46 sq.m (approx.)

**Metal Sheet** 

Space available for Solar Area- 809.2 sq.m (approx.)

Space available for Solar Area- 146.26 sq.m (approx.)

Total Area available- 1112.67 sq.m (approx.)

For Tender Purpose Only

| <ol> <li>GENERAL NOTES:</li> <li>All dimensions are to be read and not to be scaled.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 854. IEC 60502 / IS 1554. Temp range-10 deg. C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
| METEL SHEET ROOF (GOOD CONDITION)  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| IPE GLOBAL LIMITED   |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
| R0 16-05-22 HARD COPY A.V.   |
| REV. DATE DESCRIPTION APPROV.  |
| REVISION INDEX DRAWING TITLE: PROPOSED LOCATION FOR SOLAR ROOF TOP SYSTEM FOR STATE SPORTS COUNCIL, DISTRICT SPORTS COMPLEX (INDOOR STADIUM) Date: PREPARED :  |
| 16-05-2022     AZEL MESHA J KHARBHIH       CHECKED :     CHECKED :       Scale     Sheet Size       NTS     A3       ABHILASH VERMA  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/012 R 0   |

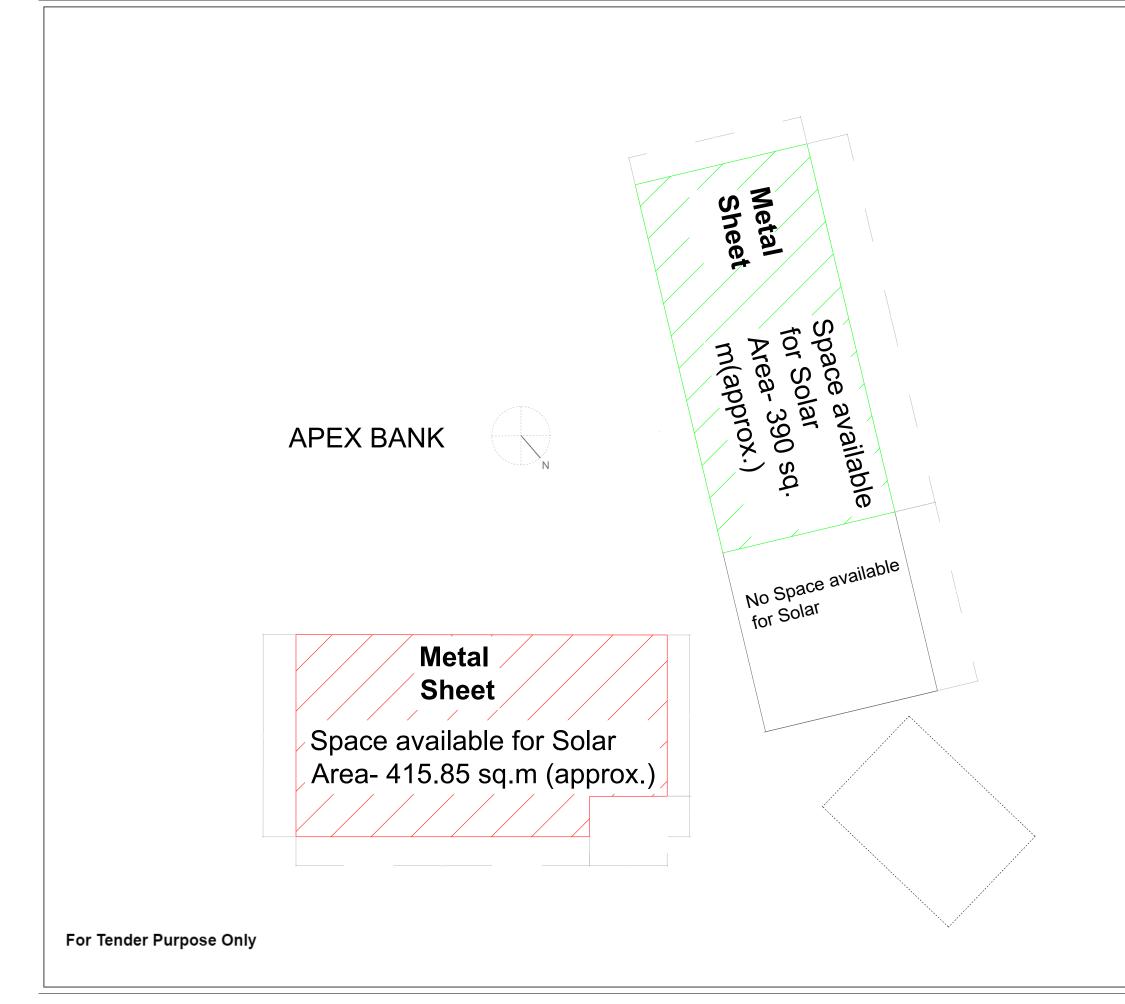
Ν

Space available for Solar Area- 113.95 sq.m (approx.)

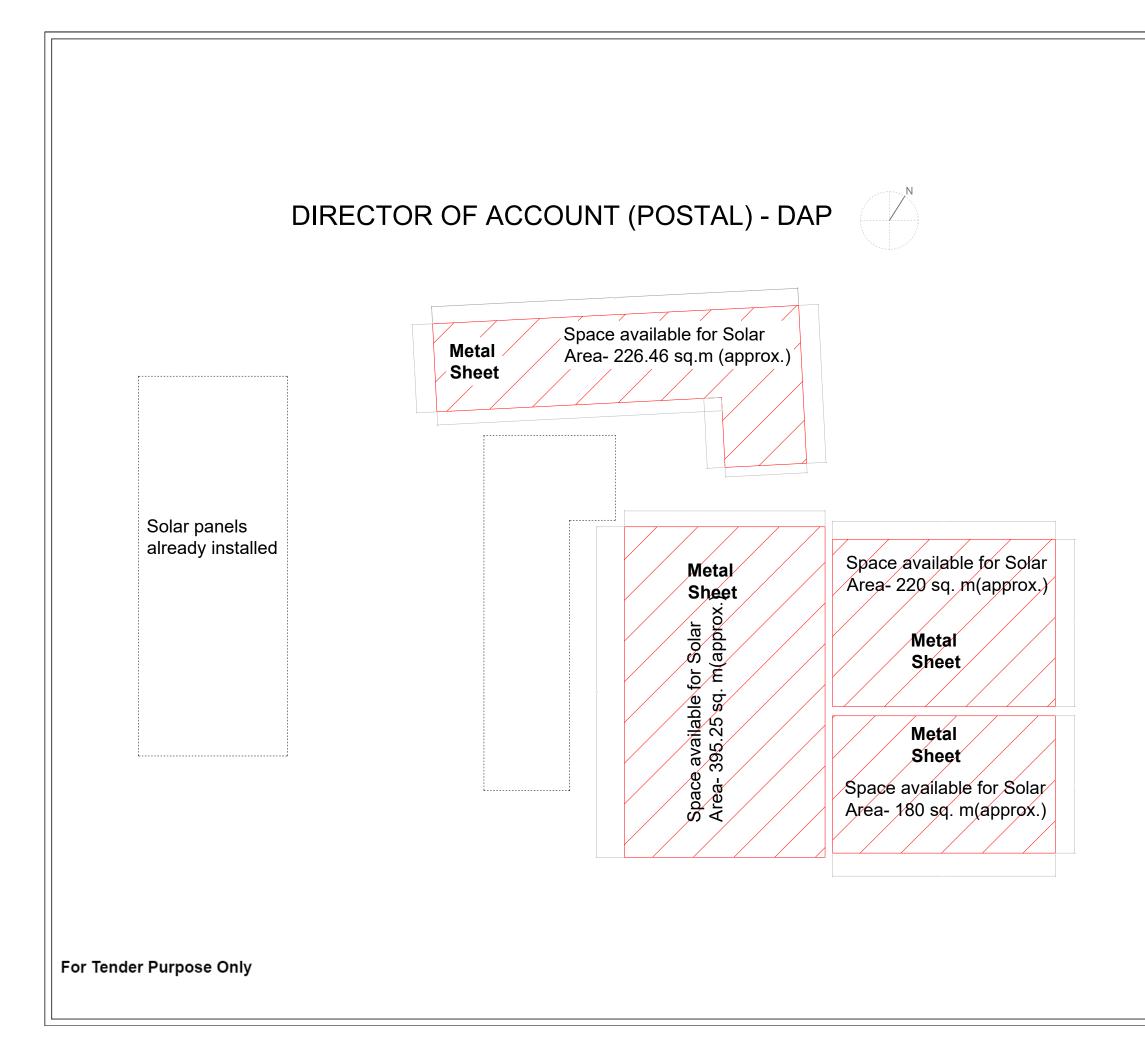
### INDOOR TRAINING HALL, POLO

Metal Sheet Space available for Solar Area- 600 sq.m (approx.)

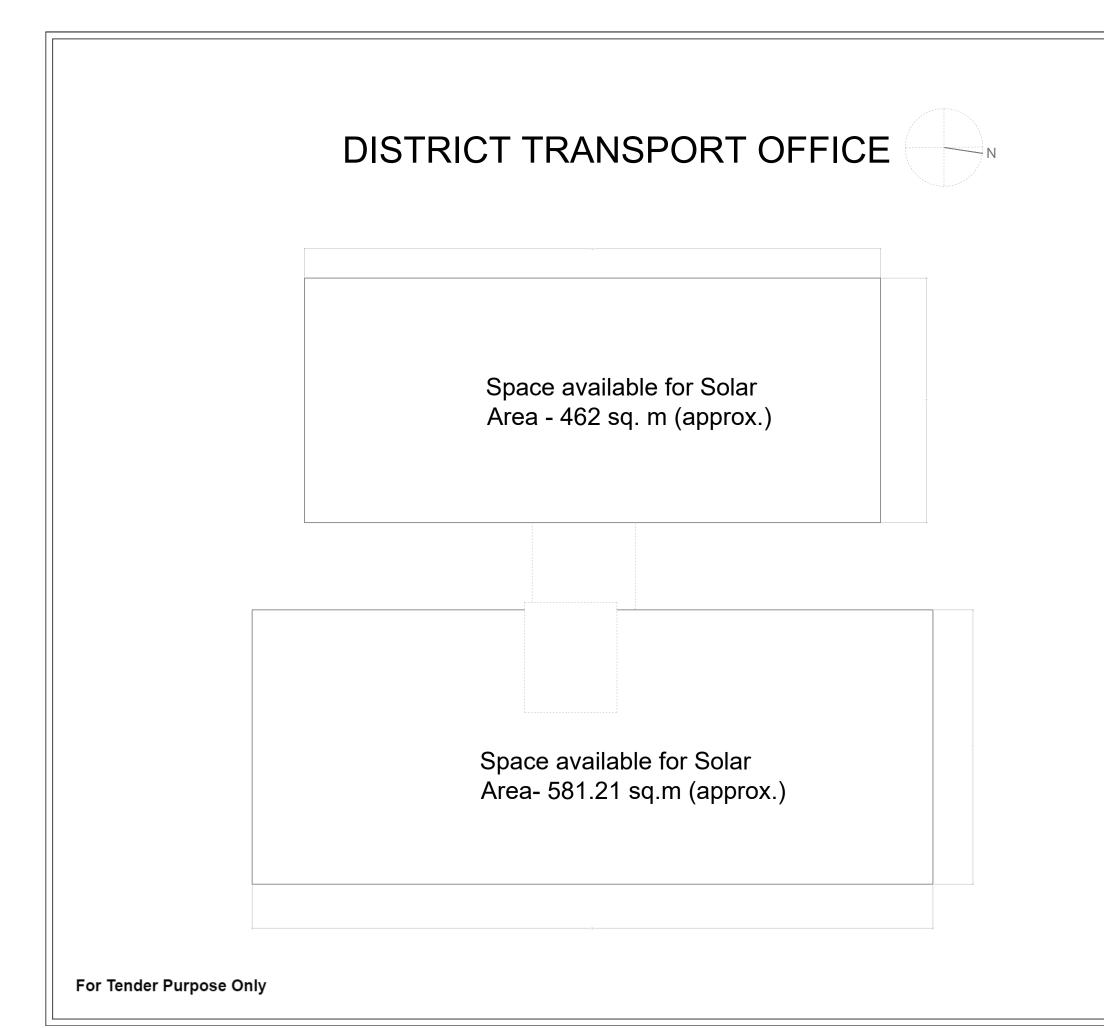
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062;1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 644, IEC 60502 / IS 1554, Temp range-10 deg.C to +80 Deg.C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
| METEL SHEET ROOF (GOOD CONDITION)  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| Consultant   |
|  |
|  |
|  |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
|  |
| R016-05-22HARD COPYA.V.REV.DATEDESCRIPTIONAPPROV.REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR INDOOR TRAINING HALL,<br>POLO, SHILLONG   |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size   |
| NTS A3 APPROVED :<br>ABHILASH VERMA  |
| DRAWING NO:  |
| IPE/SSCL/MEG-SH/SOLAR/013 R 0  |



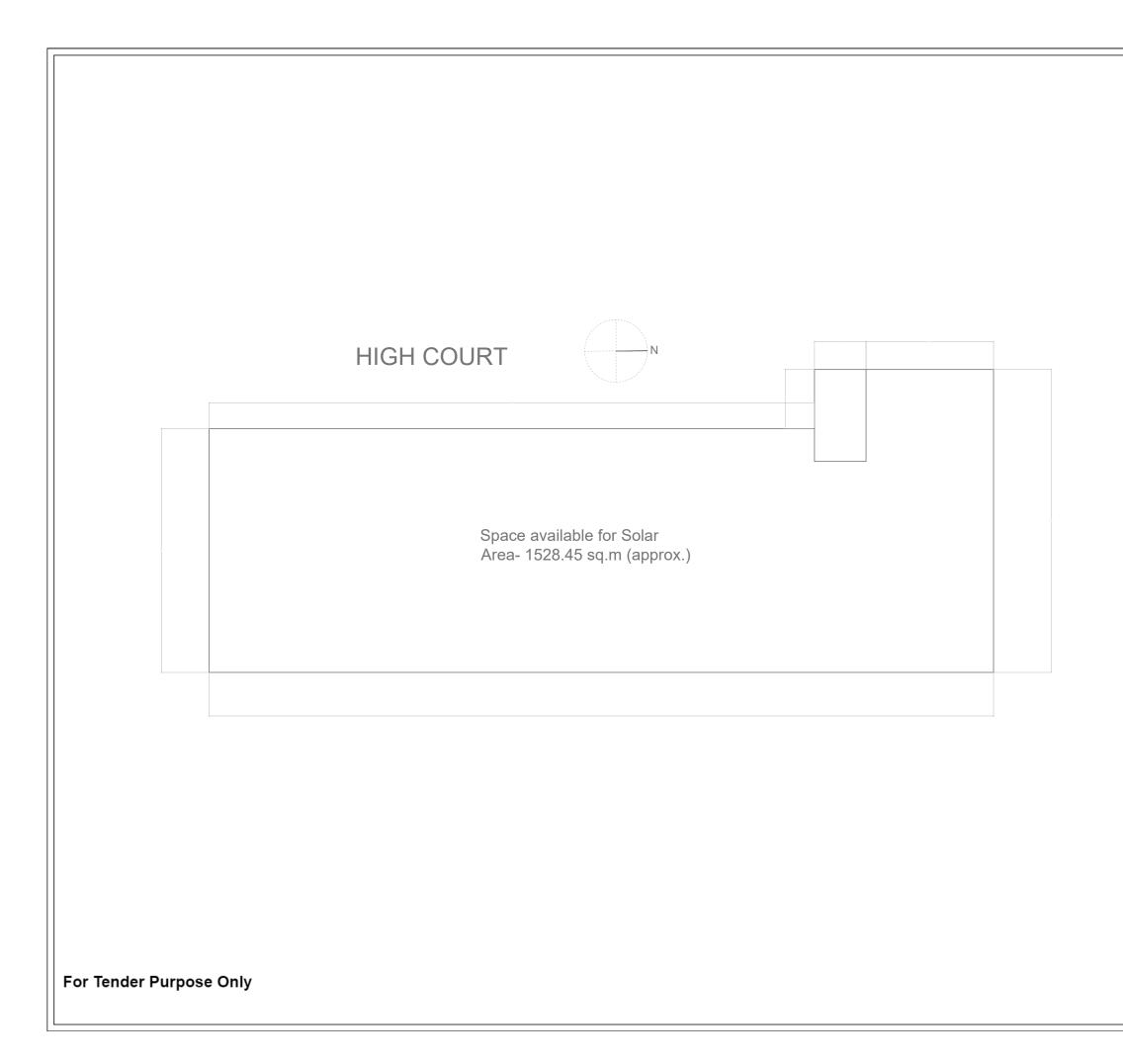
| 3. Solar P<br>61730   |   |             | if otherwise sp  |   |   |
|---|---|-------------|--|---|---|
|   |   | module c    |  |   | C 61215, IS / IEC   |
|   | V Modue co  | nversion e  | efficiency shal  |   | s tha 16.5%.<br>'oltage range and   |
| 6. All swit   |   | ircuit brec |  | tors shall co   | nfirm to IEC 60947  |
| 7. DC DP  | 2 & 3 and IS<br>B's shall have<br>otection.   |             |  | & Vermin p  | proof confirm to  |
| 8. The Mo   | ounting Struc   |             | hall be as per<br>g structure sha  |   | 62:1992 &<br>nce of latest IS   |
|   |   |             |  |   | all meet IEC 60227 /  |
|   | er Board shall  |             | np range-10 c<br>led as and wh   |   | 0 Deg. C<br>ary as per IE Act /   |
| IE KUIE:  | 5.  |             |  |   |   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
| LEGE  | ENDS:   |             |  |   |   |
|   |   |             | ON / ARE   |   | MOUNTING  |
| Notes   | S:  |             |  |   |   |
|   | RCC RO  | DOF (C      | GOOD CC  | NDITIO  | N)  |
|   | RCC R   | DOF (E      | BAD CON  | DITION  | )   |
|   | METEL   | SHEET       | rroof (  | GOOD  | CONDITION)  |
|   |   | SHEE        | T ROOF   | (BAD C  | ONDITION)   |
| _   | ILLON   | G SN        | AART C   | CITY L  | IMITED  |
| Consultant  |   | GLO         | OBAL L   | IMITE   | D   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
|   |   |             |  |   |   |
|   | JECT:   |             |  |   |   |
| GRID  | CONNEC  |             | ROOFTO<br>T VARIO  |   | AR PHOTO -<br>LDINGS  |
| GRID  | CONNEC  |             |  |   |   |
| GRID  | CONNEC  |             |  |   |   |
| GRID  | CONNEC  |             |  |   |   |
| GRID<br>VOLT/   | CONNEC<br>AIC SYS   | TEM A       | T VARIO  | US BUI  | A.V.  |
| GRID<br>VOLT/<br>R0<br>REV.   | CONNEC<br>AIC SYS<br>16-05-2<br>DAT   | 22<br>E DE  | HARD CO  | US BUI  | A.V.  |
| R0<br>REV.  | CONNEC<br>AIC SYS   | TEM A       | HARD CO  | US BUI  | A.V.  |
| R0<br>REVI<br>DRAV  | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T                                  | TEM A       | HARD CO<br>ESCRIP  | DPY<br>TION   | A.V.  |
| R0<br>REV.<br>REVI<br>DRAV<br>PROP                                    | CONNEC<br>AIC SYS   |             | HARD CC<br>ESCRIP<br>(<br>ON FOR<br>HE MEG   | DPY<br>TION<br>SOLAR  | A.V.<br>APPROV  |
| R0<br>REV.<br>REVI<br>DRAV<br>PROP                                    | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T<br>OSED LC<br>SYSTEM<br>PERATIVI |             | HARD CO<br>SCRIP<br>C<br>SCRIP   | DPY<br>TION<br>SOLAR  | A.V.<br>APPROV  |
| R0<br>REV.<br>REV.<br>DRAV<br>PROPUTOP S<br>C0-OP                     | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T<br>OSED LC<br>SYSTEM<br>PERATIVI |             | HARD CC<br>ESCRIP<br>(<br>ON FOR<br>HE MEG   | DPY<br>TION<br>SOLAR<br>HALAY,<br>TD, PC  | A.V.<br>APPROV.   |
| R0<br>REV.<br>REV.<br>DRAV<br>PROPUTOP S<br>C0-OP                     | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T<br>OSED LC<br>SYSTEM<br>PERATIVI | TEM A       | HARD CO<br>SCRIP<br>C<br>ON FOR<br>HE MEG<br>X BANK I  | DPY<br>TION<br>SOLAR<br>HALAY,<br>TD, PC  | A.V.<br>APPROV.   |
| R0<br>REV.<br>REV.<br>DRAV<br>PROPUTOP S<br>C0-OP                     | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T<br>OSED LC<br>SYSTEM<br>PERATIVI | TEM A       | T VARIO<br>HARD CO<br>SCRIP<br>K<br>:<br>ON FOR<br>HE MEG<br>X BANK I<br>-2022<br>Sheet Size | DPY<br>TION<br>SOLAR<br>HALAY,<br>TD, PC<br>PREPAR<br>AZEL MESH<br>CHECKE<br>M. MUSHTA            | A.V.<br>APPROV<br>APPROV<br>ROOF<br>A<br>DLICE<br>ED :<br>A KHARBHIH<br>D :<br>2 KHAN             |
| R0<br>REV.<br>REV.<br>DRAV<br>PROPUTOP S<br>C0-OP                     | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T<br>OSED LC<br>SYSTEM<br>PERATIVI | TEM A       | T VARIO  | DPY<br>TION<br>SOLAR<br>HALAY,<br>TD, PC<br>PREPAR<br>AZEL MESH<br>CHECKE                         | A.V.<br>APPROV<br>APPROV<br>ROOF<br>ADLICE<br>ED :<br>AJKHARBHIH<br>D :<br>2KHAN<br>'ED :<br>ERMA |
| R0<br>REV.<br>REV.<br>REV.<br>DRAV<br>PROP<br>TOP S<br>C0-OF<br>BAZAF | CONNEC<br>AIC SYS<br>16-05-2<br>DATI<br>SION I<br>WING T<br>OSED LC<br>SYSTEM<br>PERATIVI | TEM A       | T VARIO  | DPY<br>TION<br>SOLAR<br>HALAY,<br>TD, PC<br>PREPAR<br>AZEL MESH<br>CHECKE<br>M. MUSHTAI<br>APPROV | A.V.<br>APPROV.<br>APPROV.  |



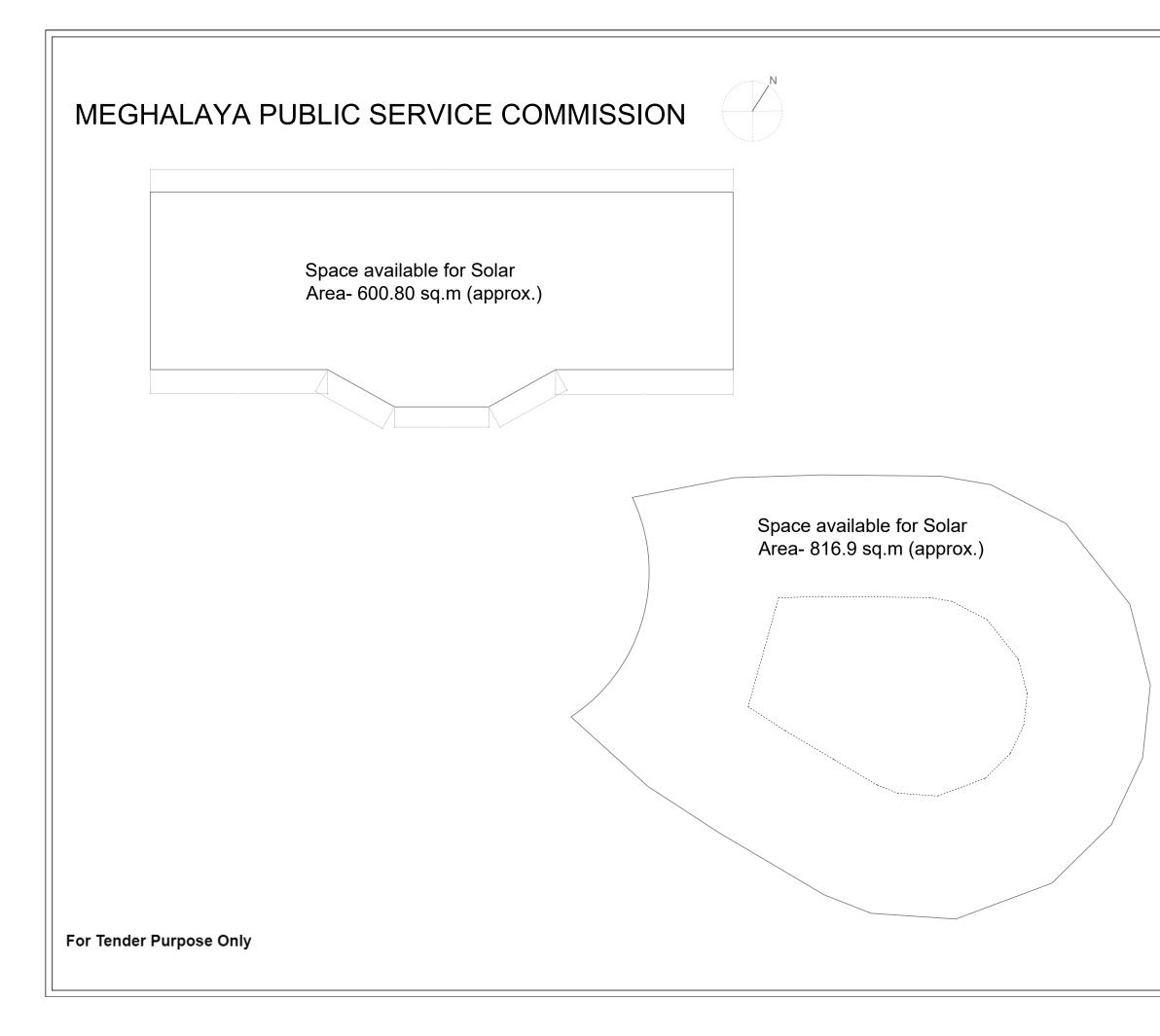
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IE<br/>61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be les</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input V<br/>400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall co<br/>Part-1, 2. 8.3 and IS 60947 Part-1, 2. 8.3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin ş<br/>IPA's Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 20<br/>galvanization of the mounfing structures shall compila<br/>4759.</li> <li>9. Cable of appropriate size to be used in the system sh<br/>IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +6<br/>10. Danger Board shall be provided as and where neces<br/>IE Rules.</li> </ul> | s tha 16.5%.<br>/oltage range and<br>onfirm to IEC 60947<br>proof confirm to<br>162:1992 &<br>nce of latest IS<br>all meet IEC 60227 /<br>30 Deg, C |
|---|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR<br>SOLAR PHOTO-VOLTAIC CELL  | MOUNTING  |
| Notes:  |   |
| RCC ROOF (GOOD CONDITIC   | DN)   |
| RCC ROOF (BAD CONDITION   | )   |
| METEL SHEET ROOF (GOOD  | CONDITION)  |
| METEL SHEET ROOF (BAD C   | ONDITION)   |
| Submitted by  |   |
| SHILLONG SMART CITY L   | IMITED  |
| IPE GLOBAL LIMITE   | D   |
|   |   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLA<br>VOLTAIC SYSTEM AT VARIOUS BUI  |   |
|   |   |
| R0 16-05-22 HARD COPY<br>REV. DATE DESCRIPTION  | A.V.<br>APPROV.   |
| REVISION INDEX  |   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR   | ROOF  |
| TOP SYSTEM FOR DIRECTOR OF A<br>(POSTAL) - DAP  |   |
| TOP SYSTEM FOR DIRECTOR OF A<br>(POSTAL) - DAP  | CCOUNT<br>RED :   |
| TOP SYSTEM FOR DIRECTOR OF A<br>(POSTAL) - DAP<br>Date:<br>16-05-2022<br>CHECKE   | CCOUNT<br>RED :<br>IA J KHARBHIH<br>ED :  |
| TOP SYSTEM FOR DIRECTOR OF A<br>(POSTAL) - DAP  | CCOUNT<br>RED :<br>LA J KHARBHIH<br>ED :<br>Q KHAN<br>/ED :   |
| TOP SYSTEM FOR DIRECTOR OF A<br>(POSTAL) - DAP  | CCOUNT<br>RED :<br>LA J KHARBHIH<br>ED :<br>Q KHAN<br>/ED :   |



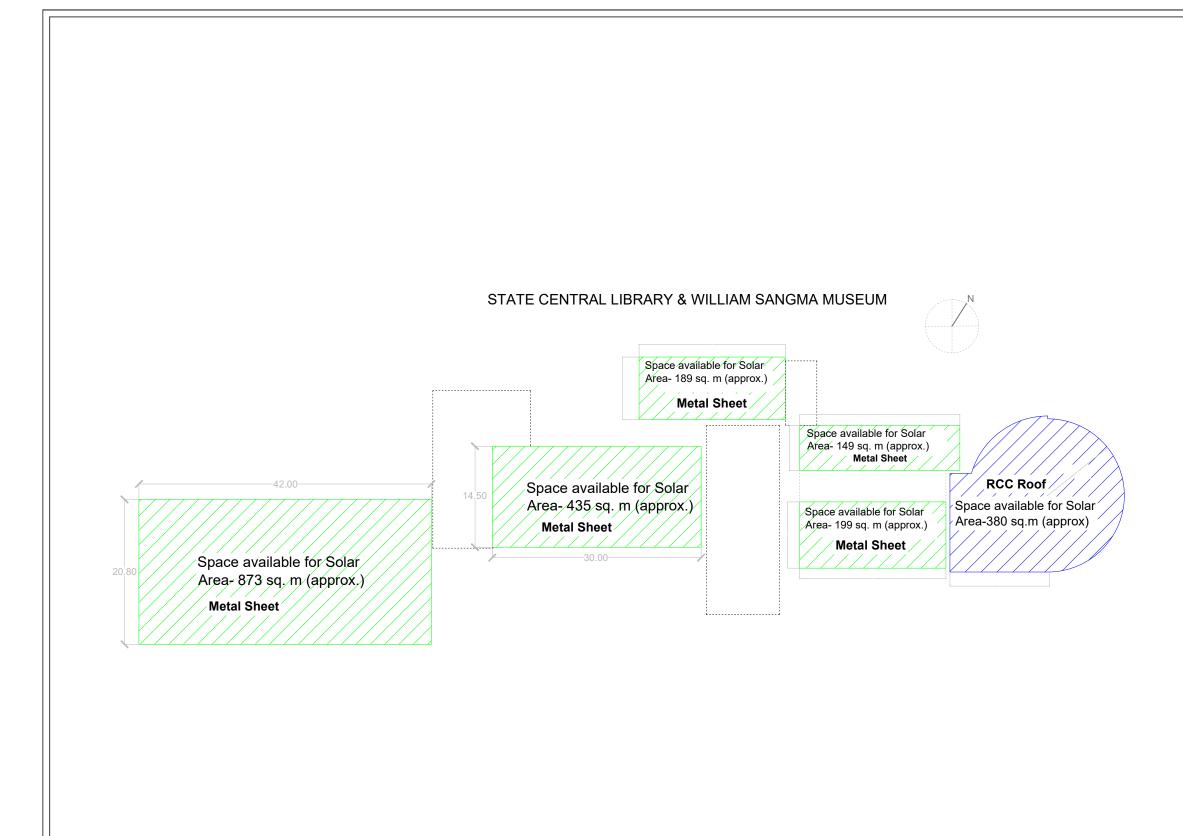
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IPAS Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 644, IEC 60502 / IS 1554, Temp range-10 deg.C to 480 Deg.C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
|  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| Consultant<br>IPE GLOBAL LIMITED   |
|  |
|  |
|  |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
|  |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.  |
| REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR DISTRICT TRANSPORT<br>OFFICE  |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           NTS         A3           APPROVED :           ABHILASH VERMA  |
| DRAWING NO:  |
| IPE/SSCL/MEG-SH/SOLAR/016 R 0  |



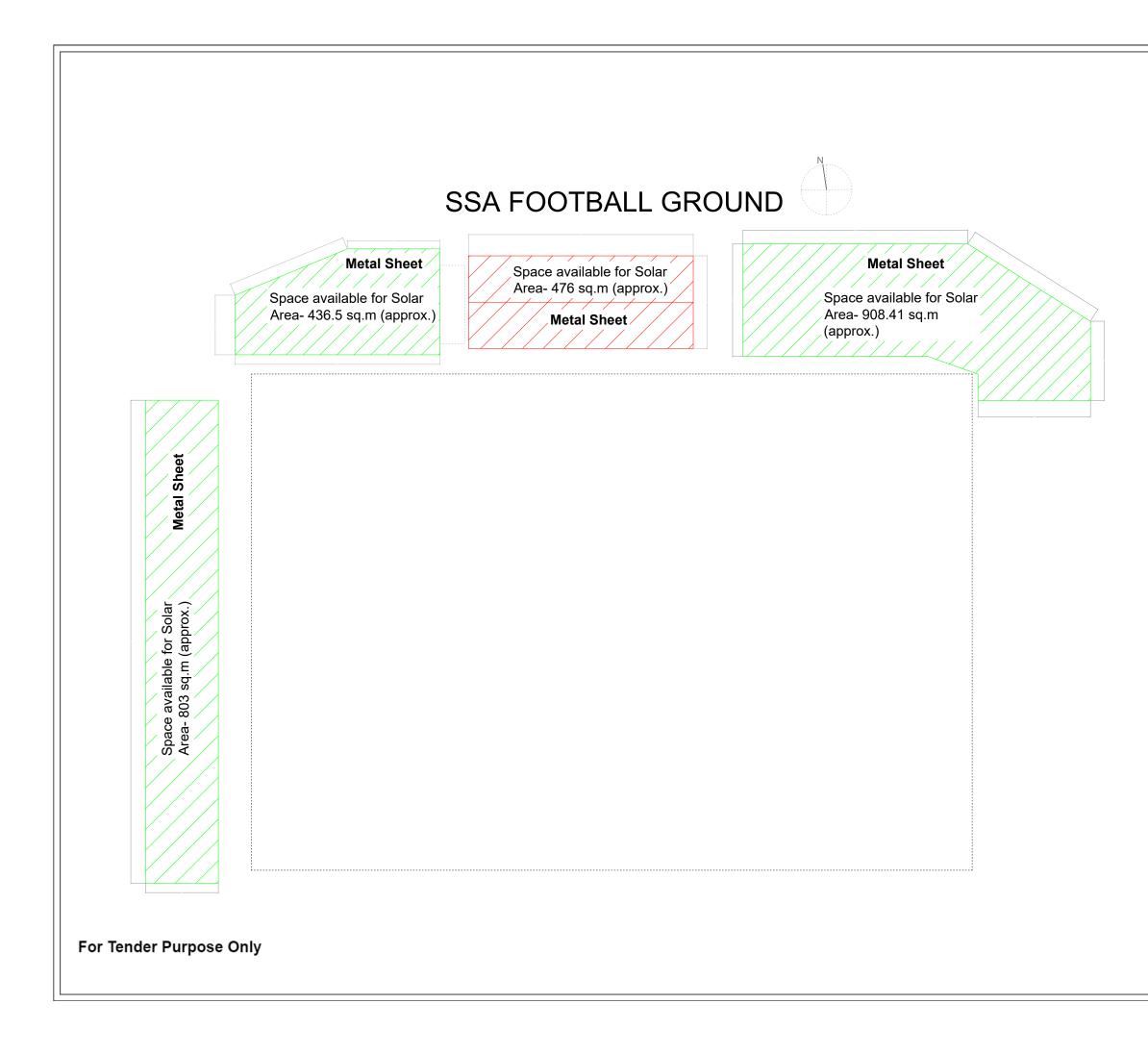
| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Valida: module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Junit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 8.3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IPA5 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
| METEL SHEET ROOF (GOOD CONDITION)   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -  |
| VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |
| REV.   DATE   DESCRIPTION   APPROV.<br>REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR HIGH COURT OF<br>MEGHALAYA   |
| Date: PREPARED :  |
| 16-05-2022 CHECKED :  |
| Scale         Sheet Size         M. MUSHTAQ KHAN           NTS         A3         APPROVED :<br>ABHILASH VERMA  |
| DRAWING NO:   |
| IPE/SSCL/MEG-SH/SOLAR/017 R 0   |



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1.</li> <li>Solar Phy Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and 15 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encoses of dust &amp; Vermin proof confirm to IPAS Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Coble of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
| METEL SHEET ROOF (GOOD CONDITION)   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
|   |
|   |
|   |
| PROJECT:  |
| GRID CONNECTED ROOFTOP SOLAR PHOTO -  |
| VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
|   |
| R0         16-05-22         HARD COPY         A.V.  |
| REV. DATE DESCRIPTION APPROV.   |
| REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR MEGHALAYA PUBLIC<br>SERVICE COMMISSION OFFICE, HORSE<br>SHOE BUILDING  |
|   |
| Date: PREPARED :<br>AZEL MESHA J KHARBHIH   |
| 16-05-2022 AZEL MESHA J KHARBHIH<br>CHECKED :   |
| 16-05-2022     AZEL MESHA J KHARBHIH       CHECKED :     CHECKED :       Scale     Sheet Size       NTS     A3  |
| 16-05-2022     AZEL MESHA J KHARBHIH       CHECKED :     CHECKED :       Scale     Sheet Size       NTS     A3       APPROVED :       ABHILASH VERMA  |
| 16-05-2022     AZEL MESHA J KHARBHIH       CHECKED :     CHECKED :       Scale     Sheet Size       NTS     A3       APPROVED :       ABHLASH VERMA   |

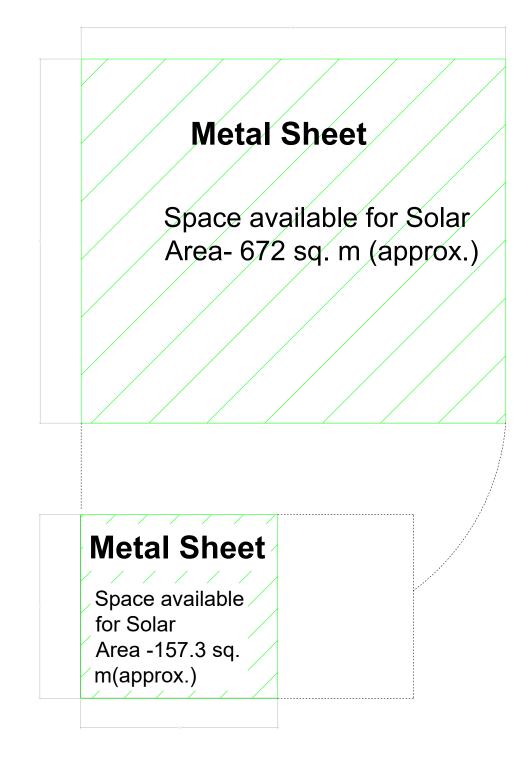


| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning junit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and 15 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554, Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
| METEL SHEET ROOF (GOOD CONDITION)   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
|   |
| R016-05-22HARD COPYA.V.REV.DATEDESCRIPTIONAPPROV.REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR STATE CENTRAL LIBRARY,<br>CAPTAIN WILLIAMSON SANGMA STATE<br>MUSEUM  |
| Date:         PREPARED :           16-05-2022         AZEL MESHAJ KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           NTS         A3  |
| ABHILASH VERMA<br>REVISION  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/019 R 0  |



| 1   | RAL NOTES:<br>ensions are in meters, if otherwise spe   | cified                          |
|---|---|---------------------------------|
| 1   | ensions are in meters, it otherwise spe<br>ions are to be read and not to be sc<br>hoto Voltaic module confirming to IS   | aled.                           |
| 61730 F<br>4. Solar P   | Part-1, IS / IEC 61730 Part-2.<br>V Modue conversion efficiency shall   | not be less tha 16.5%.          |
| 400VA   | Conditioning Unit (PCU) of 350-800 VI<br>C, 3Ph, 4wire, 50Hz.   |                                 |
| Part-1,   | ches & the circuit breakers. connecto<br>2 & 3 and IS 60947 Part-1, 2 &3.   |                                 |
| IP65 Pro  | 3's shall have sheet encosers of dust &<br>otection.<br>ounting Structuresteel shall be as per l  |                                 |
|   | ization of the mounting structure sha   |                                 |
| 9. Cable<br>IS 694, I<br>10.Dange                               | of appropriate size to be used in the<br>EC 60502 / IS 1554. Temp range-10 de<br>r Board shall be provided as and whe   | eg.C to +80 Deg. C              |
| IE Rules  | i   |                                 |
|   |   |                                 |
|   |   |                                 |
|   | ENDS:   |                                 |
|   | OSED LOCATION / ARE   | A FOR MOUNTING                  |
| 1   | R PHOTO-VOLTAIC CEL   |                                 |
| Notes   |   |                                 |
|   | RCC ROOF (GOOD CO   | NDITION)                        |
|   | RCC ROOF (BAD CON   | DITION)                         |
|   | METEL SHEET ROOF (  | GOOD CONDITION)                 |
|   | METEL SHEET ROOF (  | BAD CONDITION)                  |
| Submitted I   |   |                                 |
| SH  | ILLONG SMART C  | ITY LIMITED                     |
| Consultant  |   |                                 |
| 1   | IPE GLOBAL L  | IMITED                          |
|   | IPE GLOBAL LI   | IMITED                          |
|   | IPE GLOBAL LI   | IMITED                          |
|   | IPE GLOBAL L  | IMITED                          |
|   | IPE GLOBAL L  | IMITED                          |
|   | IPE GLOBAL L  | IMITED                          |
|   |   | IMITED                          |
| PRO   | JECT:   | IMITED                          |
| GRID  | JECT:<br>CONNECTED ROOFTOF  | P SOLAR PHOTO -                 |
| GRID  | JECT:   | P SOLAR PHOTO -                 |
| GRID  | JECT:<br>CONNECTED ROOFTOF  | P SOLAR PHOTO -                 |
| GRID  | JECT:<br>CONNECTED ROOFTOF  | P SOLAR PHOTO -                 |
| GRID (<br>VOLTA   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU  | P SOLAR PHOTO -                 |
| GRID (<br>VOLTA   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC  | P SOLAR PHOTO -<br>JS BUILDINGS |
| R0<br>REV.  | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIP  | P SOLAR PHOTO -<br>JS BUILDINGS |
| R0<br>REV.  | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC  | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REVI<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIP<br>SION INDEX<br>VING TITLE:   | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REV.<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIPT<br>SION INDEX   | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REV.<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CO<br>DATE DESCRIPT<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S   | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REV.<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CO<br>DATE DESCRIPT<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S   | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REV.<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIP<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S<br>YSTEM FOR SSA FOOT  | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REV.<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CO<br>DATE DESCRIP<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S<br>YSTEM FOR SSA FOOT<br>Date:   | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REV.<br>DRAV                   | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIP<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S<br>YSTEM FOR SSA FOOT  | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>R0<br>REV.<br>REVI<br>DRAV<br>PROP(<br>TOP S | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIP<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S<br>YSTEM FOR SSA FOOT<br>Date:<br>16-05-2022<br>Scale Sheet Size<br>NTS A3 | P SOLAR PHOTO -<br>JS BUILDINGS |
| GRID (<br>VOLT/<br>REV.<br>REV.<br>DRAV<br>PROP(<br>TOP S       | JECT:<br>CONNECTED ROOFTOF<br>AIC SYSTEM AT VARIOU<br>16-05-22 HARD CC<br>DATE DESCRIP<br>SION INDEX<br>VING TITLE:<br>DSED LOCATION FOR S<br>YSTEM FOR SSA FOOT<br>Date:<br>16-05-2022<br>Scale Sheet Size           | P SOLAR PHOTO -<br>JS BUILDINGS |

#### MEGHALAYA URBAN DEVELOPMENT AUTHORITY COMPLEX



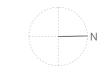
| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1.</li> <li>Solar PP Madue conversion efficiency shall not be less than 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheel encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg. C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
| METEL SHEET ROOF (GOOD CONDITION)   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
| R0     16-05-22     HARD COPY     A.V.       REV.     DATE     DESCRIPTION     APPROV.       REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR MEGHALAYA URBAN<br>DEVELOPMENT AUTHORITY COMPLEX   |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         MUSHTAQ KHAN           Scale         Sheet Size           NTS         A3  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/021 R 0  |

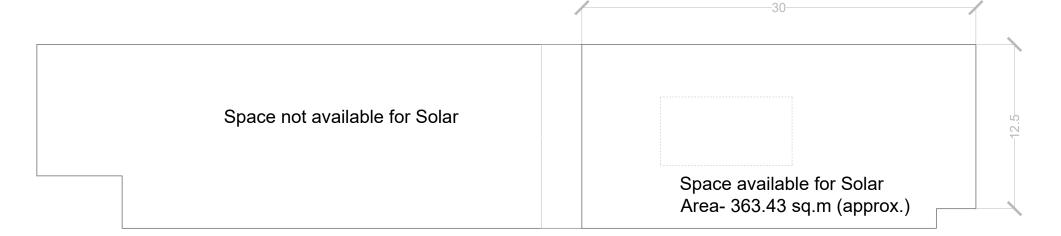
# VENDOR'S MARKET, POLO



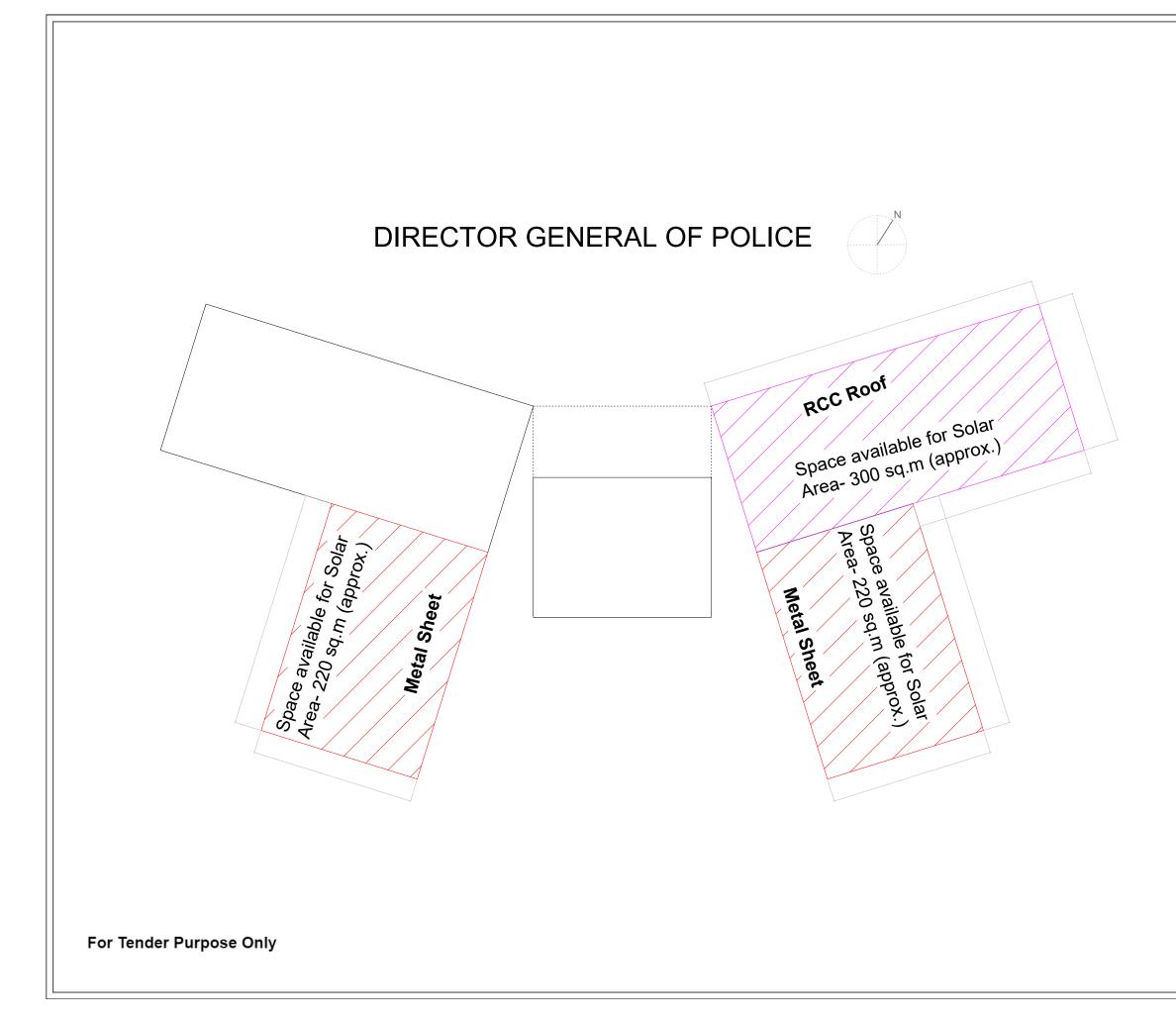
| 1. All dimens<br>2. Dimension   |  |  |   |  |   |
|---|--|--|---|--|---|
| 3. Solar Phot   |  | dule c   | onfirming to I  |  | C 61215, IS / IEC   |
|   | nditioning Uni   | it (PCU  |   |  | tha 16.5%.<br>'oltage range and   |
| 6. All switche  |  | it brea  |   | tors shall co  | nfirm to IEC 60947  |
|   |  |  |   | & Vermin p   | roof confirm to   |
| 8. The Mount  | ting Structure   |  |   |  | 62:1992 &<br>nce of latest IS   |
| 4759.   |  |  |   |  | all meet IEC 60227 /  |
| IS 694, IEC   | 60502 / IS 155   | 54. Ten  | np range-10 d   | deg.C to +8  |   |
|   | SED LOC  |  | ON / ARE  |  | MOUNTING  |
| Notes:  | 11010-   | VOL  |   |  |   |
|   |  |  |   |  |   |
| R   | CC ROO   | )F (C  | GOOD CC   | NDITIO   | N)  |
| F   | RCC ROO  | )F (E  | BAD CON   | DITION   | )   |
| N   | IETEL SH   | HEET   | ROOF  | GOOD   | CONDITION)  |
| M   | IETEL SH   | HEE  | T ROOF  | (BAD CO  | ONDITION)   |
| Submitted by  |  | C A  |   |  | IMITED  |
| 2HIL  | LONG   | 51   |   | ,     L  |   |
| <b>SHIL</b><br>Consultant   |  |  |   |  |   |
|   |  |  | DBAL L  |  |   |
|   |  |  |   |  |   |
|   |  |  |   |  |   |
|   |  |  |   |  |   |
|   |  |  |   |  |   |
|   |  |  |   |  |   |
|   | IPE (  |  |   |  |   |
| PROJE   | IPE C  |  | DBAL L  | P SOLA   | D<br>R PHOTO -  |
| PROJE   | IPE C  |  | ROOFTO  | P SOLA   | D<br>R PHOTO -  |
| PROJE   | IPE C  |  | ROOFTO  | P SOLA   | D<br>R PHOTO -  |
| PROJE   | IPE C  |  | ROOFTO  | P SOLA   | D<br>R PHOTO -  |
| PROJE<br>GRID CC<br>VOLTAIC   | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22   |  | ROOFTO<br>T VARIO   |  | R PHOTO -<br>LDINGS   |
| PROJE<br>GRID CC<br>VOLTAIC<br>R0 1<br>REV.                                   | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE   |  | ROOFTO<br>T VARIO<br>HARD CO  |  | R PHOTO -<br>LDINGS   |
| PROJE<br>GRID CC<br>VOLTAIC   | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE   |  | ROOFTO<br>T VARIO<br>HARD CO  |  | R PHOTO -<br>LDINGS   |
| PROJE<br>GRID CC<br>VOLTAIC<br>R0 1<br>REV.                                   | IPE (<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI   |  | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP   |  | R PHOTO -<br>LDINGS   |
| PROJE<br>GRID CC<br>VOLTAIC<br>REV.<br>REVISI                                 | IPE (<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI<br>ON INI<br>SED LOC                                      |  | COOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>(<br>:<br>DN FOR   | P SOLA<br>US BUI   | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>ROOF  |
| PROJE<br>GRID CC<br>VOLTAIC<br>REV.<br>REVISI<br>DRAWI<br>PROPOS              | IPE (<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI<br>ON INI<br>SED LOC                                      |  | COOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>(<br>:<br>DN FOR   | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>S MARK   | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>ROOF<br>ED :  |
| PROJE<br>GRID CC<br>VOLTAIC<br>REV.<br>REVISI<br>DRAWI<br>PROPOS              | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI<br>ON INI<br>SED LOC<br>STEM FC                           |  | COOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>(<br>:<br>DN FOR   | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>S MARK   | AR PHOTO -<br>LDINGS<br>A.V.<br>A.V.<br>APPROV<br>ROOF<br>(ET   |
| PROJE<br>GRID CC<br>VOLTAIC<br>REV.<br>REVISI<br>DRAWI<br>PROPOS              | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI<br>BED LOC<br>STEM FC<br>16<br>16<br>3<br>3               | ED F<br>MA<br>DE<br>DE<br>CLE<br>ATIO<br>DR V  | COOFTO<br>T VARIO<br>HARD CC<br>SCRIP<br>C<br>SCRIP   | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>S MARK   | R PHOTO -<br>LDINGS<br>A.V.<br>A.V.<br>APPROV<br>ROOF<br>ET<br>ED :<br>AJKHARBHIH<br>D :<br>XKHAN                   |
| PROJE<br>GRID CC<br>VOLTAIC<br>REV.<br>REVISI<br>DRAWI<br>PROPOS              | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI<br>BED LOC<br>STEM FC<br>16<br>16<br>3<br>3               |  | COOFTO<br>TVARIO<br>HARD CC<br>SCRIP<br>(<br>:<br>DN FOR<br>ENDORS  | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>S MARK<br>PREPAR<br>AZEL MESHA<br>CHECKE<br>M. MUSHTAN           | R PHOTO -<br>LDINGS<br>A.V.<br>A.V.<br>APPROV<br>ED :<br>AJKHARBHIH<br>D :<br>XKHAN<br>ED :<br>ED :<br>ED :<br>ED : |
| PROJE<br>GRID CC<br>VOLTAIC<br>REVISI<br>REVISI<br>DRAWI<br>PROPOS<br>TOP SYS | IPE C<br>ECT:<br>DNNECTI<br>C SYSTE<br>6-05-22<br>DATE<br>ON INI<br>SED LOC<br>STEM FC<br>10<br>10<br>10<br>10<br>10<br>10 | ED F<br>MA<br>DE<br>DE<br>CLE<br>CATIO<br>DR V | DBALL<br>ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>(<br>:<br>DN FOR<br>ENDORS<br>-2022<br>Sheet Size<br>A3 | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>S MARK<br>PREPAR<br>AZEL MESH.<br>CHECKE<br>M. MUSHTAI<br>APPROV | R PHOTO -<br>LDINGS   |

#### MBOSE/ MEGHALAYA STATE LAW COMMISSION/ OFFICE OF THE DISTRICT TREASURY OFFICE

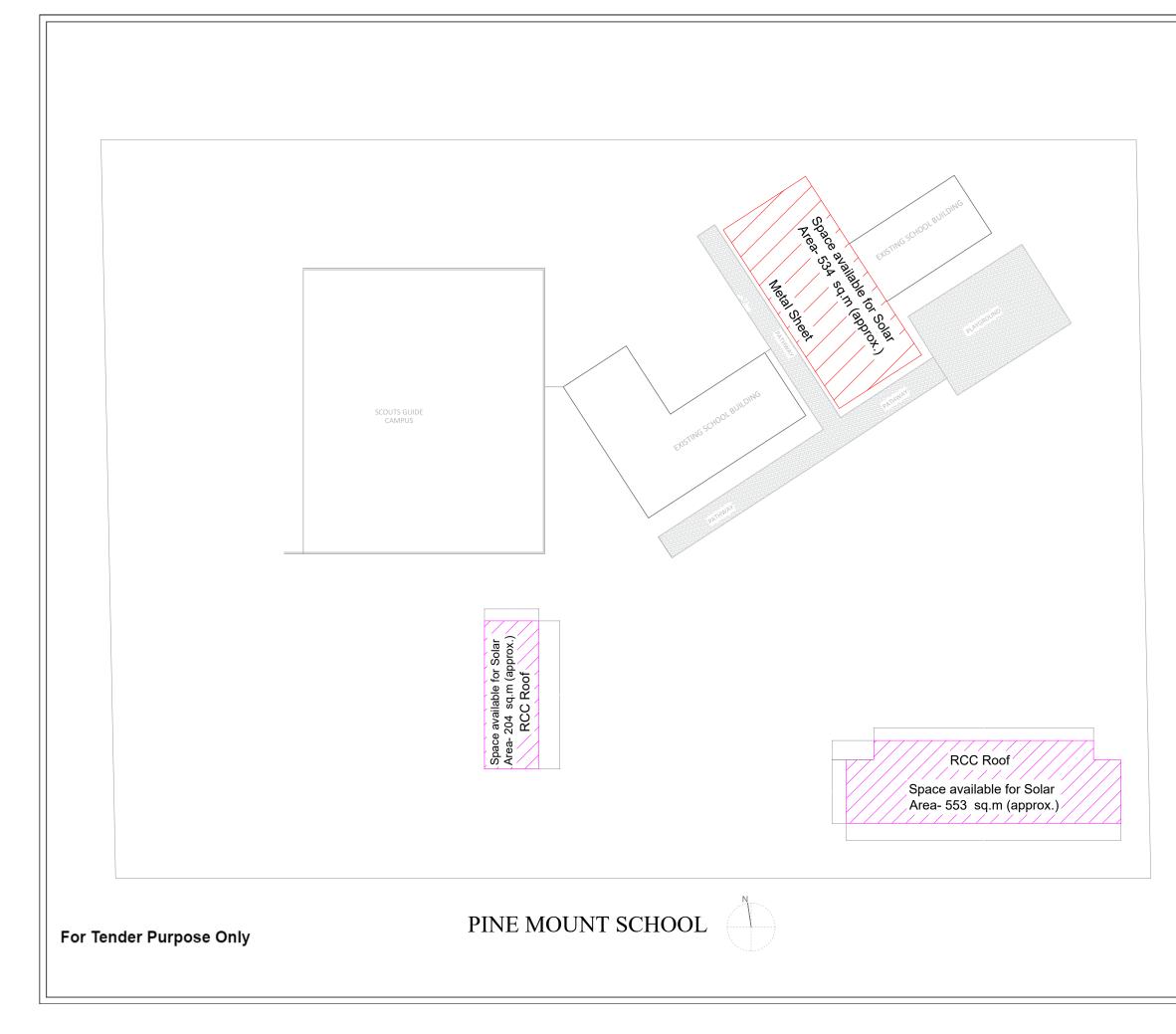




| 1 All dime   | onsions aro in  |                          | if otherwise sp   | acified  |   |
|--|---|--------------------------|---|--|---|
| 2. Dimensi<br>3. Solar Ph  | ions are to b   | e read ar<br>module c    | nd not to be s<br>confirming to I   | caled.   | C 61215, IS / IEC                             |
| 4. Solar P<br>5. Power (   | / Modue cor   | nversion e<br>Unit (PCI  | efficiency shal   |  | tha 16.5%.<br>Oltage range and                |
| 6. All swite<br>Part-1, 2  | ches & the ci<br>2 & 3 and IS &   | ircuit brea<br>60947 Par | †-1, 2 &3.  |  | nfirm to IEC 60947<br>roof confirm to         |
| IP65 Prc<br>8. The Mo  | itection.<br>unting Struct  | turesteel s              | shall be as per   | · latest IS 20   |   |
| 4759.<br>9. Cable o<br>IS 694, II  | of appropria<br>EC 60502 / IS   | te size to<br>1554. Ter  | be used in the<br>mp range-10 c   | e system sho<br>deg.C to +8  | all meet IEC 60227 /                          |
| IE Rules   |   | be provid                |   | 10101100000  |   |
|  |   |                          |   |  |   |
|  |   |                          |   |  |   |
|  | OSED LO   |                          | ON / ARE<br>TAIC CE   |  | MOUNTING                                      |
| Notes  | :   |                          |   |  |   |
|  | RCC RC  | DOF (                    | GOOD CC   | NDITIO   | N)  |
|  | RCC RC  | DOF (I                   | BAD CON   | DITION   | )   |
|  | METEL   | SHEE                     | T ROOF (  | GOOD   | CONDITION)                                    |
|  | METEL   | SHEE                     | T ROOF  | (BAD CO  | ONDITION)                                     |
| Submitted b  | ·   | <u> </u>                 |   |  |   |
|  |   | G 21                     | NAKIC   | ,   Y L  | IMITED  |
| SH<br>Consultant   |   |                          |   |  |   |
| -  |   |                          | OBAL L  | IMITE  | D   |
| -  |   |                          | OBAL L  | IMITE  | D   |
| -  |   |                          | OBAL L  | IMITE  | D   |
| -  |   |                          | OBAL L  | IMITE  | D   |
| -  |   |                          | OBAL L  | IMITE  | D   |
| -  |   |                          | OBAL L  | IMITE  | D   |
| PRO  | IPE<br>JECT:  | GL                       |   |  |   |
| PRO.<br>GRID (   | IPE<br>JECT:<br>CONNEC  |                          |   | P SOLA   |   |
| PRO.<br>GRID (   | IPE<br>JECT:<br>CONNEC  |                          | ROOFTO  | P SOLA   |   |
| PRO.<br>GRID (   | IPE<br>JECT:<br>CONNEC  |                          | ROOFTO  | P SOLA   |   |
| PROJ<br>GRID C<br>VOLTA<br>R0  | IPE<br>JECT:<br>CONNEC<br>NC SYST   |                          | ROOFTO<br>T VARIO<br>HARD CO  | P SOLA<br>US BUI   | AR PHOTO -<br>LDINGS                          |
| PRO<br>GRID 0<br>VOLTA<br>R0<br>REV.   | IPE<br>JECT:<br>CONNEC<br>IC SYS <sup>-1</sup><br>16-05-2<br>DATE   |                          | ROOFTO<br>T VARIO<br>HARD CO<br>ESCRIP  | P SOLA<br>US BUI   | AR PHOTO -<br>LDINGS                          |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REVIS  | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II  |                          | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP   | P SOLA<br>US BUI   | AR PHOTO -<br>LDINGS                          |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REV.<br>REVIS<br>DRAV<br>PROPC                             | IPE<br>JECT:<br>CONNEC<br>IC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>VING T<br>SSED LOC  | E GLU                    | ROOFTO<br>T VARIO<br>HARD CI<br>SCRIP<br>K<br>:<br>FOR SOLA   | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV        |
| PRO.<br>GRID C<br>VOLTA<br>R0<br>REV.<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGH/          | IPE<br>JECT:<br>CONNEC<br>IC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>VING T<br>SSED LOC<br>MF FOR RE<br>ALAYA BO                                   |                          | ROOFTO<br>T VARIO<br>HARD CC<br>ESCRIP<br>X   | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>DF  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV        |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGHL<br>EDUCA<br>MEGHL | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>SION II<br>VING T<br>SSED LOC<br>M FOR RE<br>ALAYA BO<br>TION (ME<br>ALAYA BO | E GLU                    | ROOFTO<br>T VARIO<br>HARD CC<br>ESCRIP<br>X<br>:<br>FOR SOLA<br>L OFFICE (<br>F SECOND<br>W COMMIS                                    | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>OF<br>ARY<br>SSION  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV        |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGHL<br>EDUCA<br>MEGHL | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>SION II<br>VING T<br>SSED LOC<br>M FOR RE<br>ALAYA BO<br>TION (ME<br>ALAYA BO | E GLU                    | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>K<br>:<br>FOR SOLA<br>L OFFICE +<br>F SECOND   | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>DF<br>ARY<br>SION<br>JRY OFF<br>PREPAR  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>TOP |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGHL<br>EDUCA<br>MEGHL | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>SION II<br>VING T<br>SSED LOC<br>M FOR RE<br>ALAYA BO<br>TION (ME<br>ALAYA BO | E GLU                    | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>K<br>:<br>FOR SOLA<br>L OFFICE +<br>F SECOND<br>W COMMIS<br>CT TREASI                        | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>DF<br>ARY<br>SION<br>JRY OFF<br>PREPAR  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>TOP |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGHL<br>EDUCA<br>MEGHL | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>SION II<br>VING T<br>SSED LOC<br>M FOR RE<br>ALAYA BO<br>TION (ME<br>ALAYA BO | E GLU                    | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>X<br>:<br>FOR SOLA<br>L OFFICE +<br>F SECOND<br>W COMMIS<br>CT TREASI<br>-2022<br>Sheet Size | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>DF<br>ARY<br>SION<br>JRY OFF<br>PREPAR<br>AZEL MESH-<br>CHECKE<br>M. MUSHTAC          | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>TOP |
| PRO<br>GRID C<br>VOLTA<br>R0<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGHL<br>EDUCA<br>MEGHL | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>SION II<br>VING T<br>SSED LOC<br>M FOR RE<br>ALAYA BO<br>TION (ME<br>ALAYA BO | E GLU                    | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>K<br>:<br>FOR SOLA<br>L OFFICE +<br>F SECOND.<br>W COMMIS<br>CT TREASU                       | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>DF<br>ARY<br>SION<br>JRY OFF<br>PREPAR<br>AZEL MESH<br>CHECKE                         | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>TOP |
| RO<br>REV.<br>REVIS<br>DRAV<br>PROPC<br>SYSTE<br>MEGH.<br>EDUCA<br>MEGH.<br>OFFICI         | IPE<br>JECT:<br>CONNEC<br>NC SYS <sup>-1</sup><br>16-05-2<br>DATE<br>SION II<br>SION II<br>VING T<br>SSED LOC<br>M FOR RE<br>ALAYA BO<br>TION (ME<br>ALAYA BO | E GLU                    | ROOFTO<br>T VARIO<br>HARD CO<br>SCRIP<br>X<br>:<br>FOR SOLA<br>L OFFICE +<br>F SECOND<br>W COMMIS<br>CT TREASI<br>-2022<br>Sheet Size | P SOLA<br>US BUI<br>DPY<br>TION<br>R ROOF<br>DF<br>ARY<br>SION<br>JRY OFF<br>PREPAR<br>AZEL MESH<br>CHECKE<br>M. MUSHTAL<br>APPROV | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV<br>TOP |



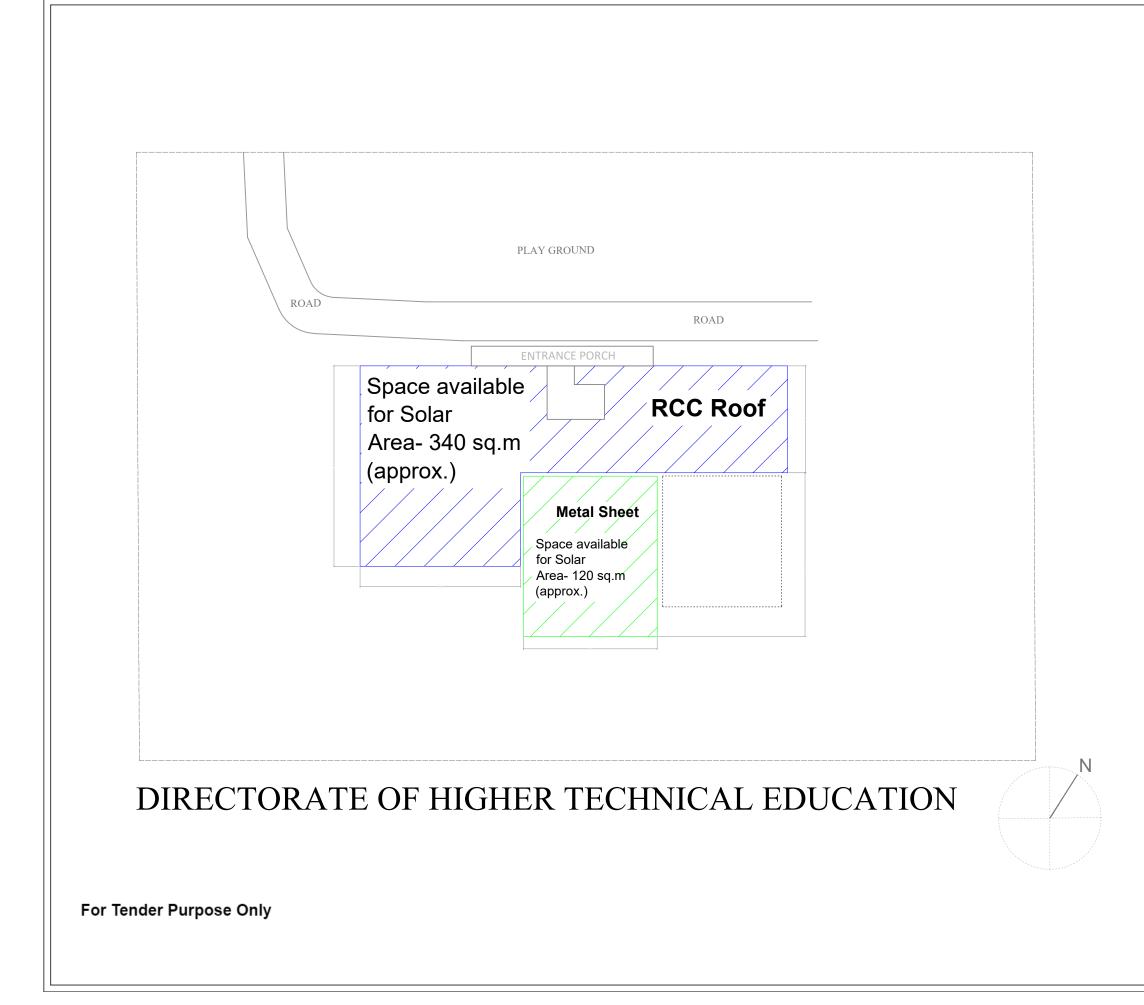
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IPAS Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062;1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 6944, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg.C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |  |  |  |  |
|---|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |
| Notes:  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |
| Submitted by  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |
|   |  |  |  |  |
|   |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |
|   |  |  |  |  |
|   |  |  |  |  |
| R0 16-05-22 HARD COPY A.V.  |  |  |  |  |
| REV. DATE DESCRIPTION APPROV.   |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR OFFICE OF THE DIRECTOR<br>GENERAL OF POLICE  |  |  |  |  |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           NTS         A3           APPROVED :           ABHILASH VERMA   |  |  |  |  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/024 R 0  |  |  |  |  |



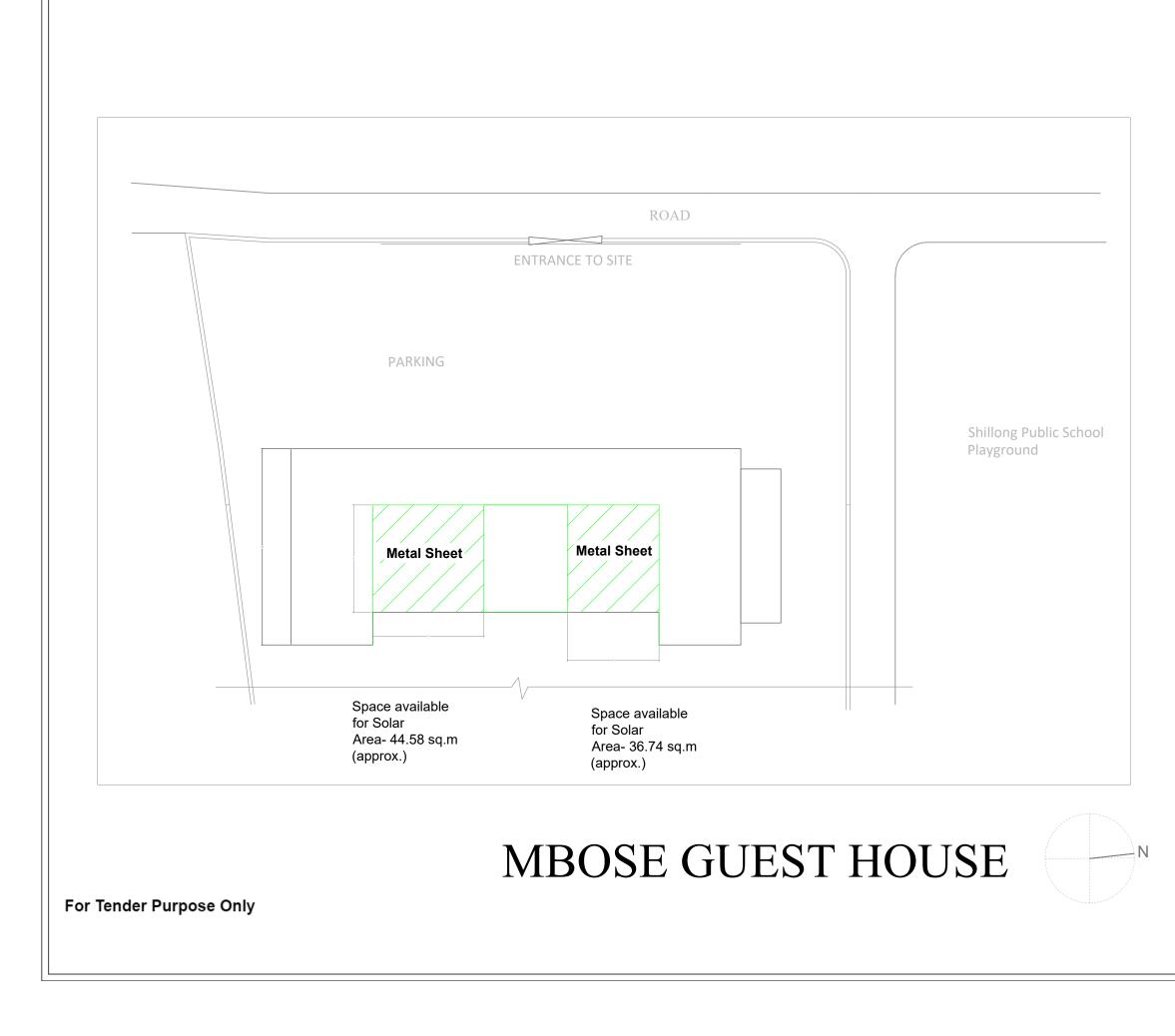
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL           |  |  |  |
|---|--|--|--|
| Notes:  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |
| Submitted by  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS |  |  |  |
|   |  |  |  |
| R0 16-05-22 HARD COPY A.V.  |  |  |  |
| REV. DATE DESCRIPTION APPROV.   |  |  |  |
| REVISION INDEX  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR PINE MOUNT SCHOOL  |  |  |  |
| Date: PREPARED :<br>AZEL MESHA J KHARBHIH   |  |  |  |
| 16-05-2022 CHECKED :  |  |  |  |
| Scale Sheet Size M. MUSHTAQ KHAN<br>NTS A3 APPROVED :                                   |  |  |  |
| NTS A3 APPROVED :<br>ABHILASH VERMA   |  |  |  |
|   |  |  |  |



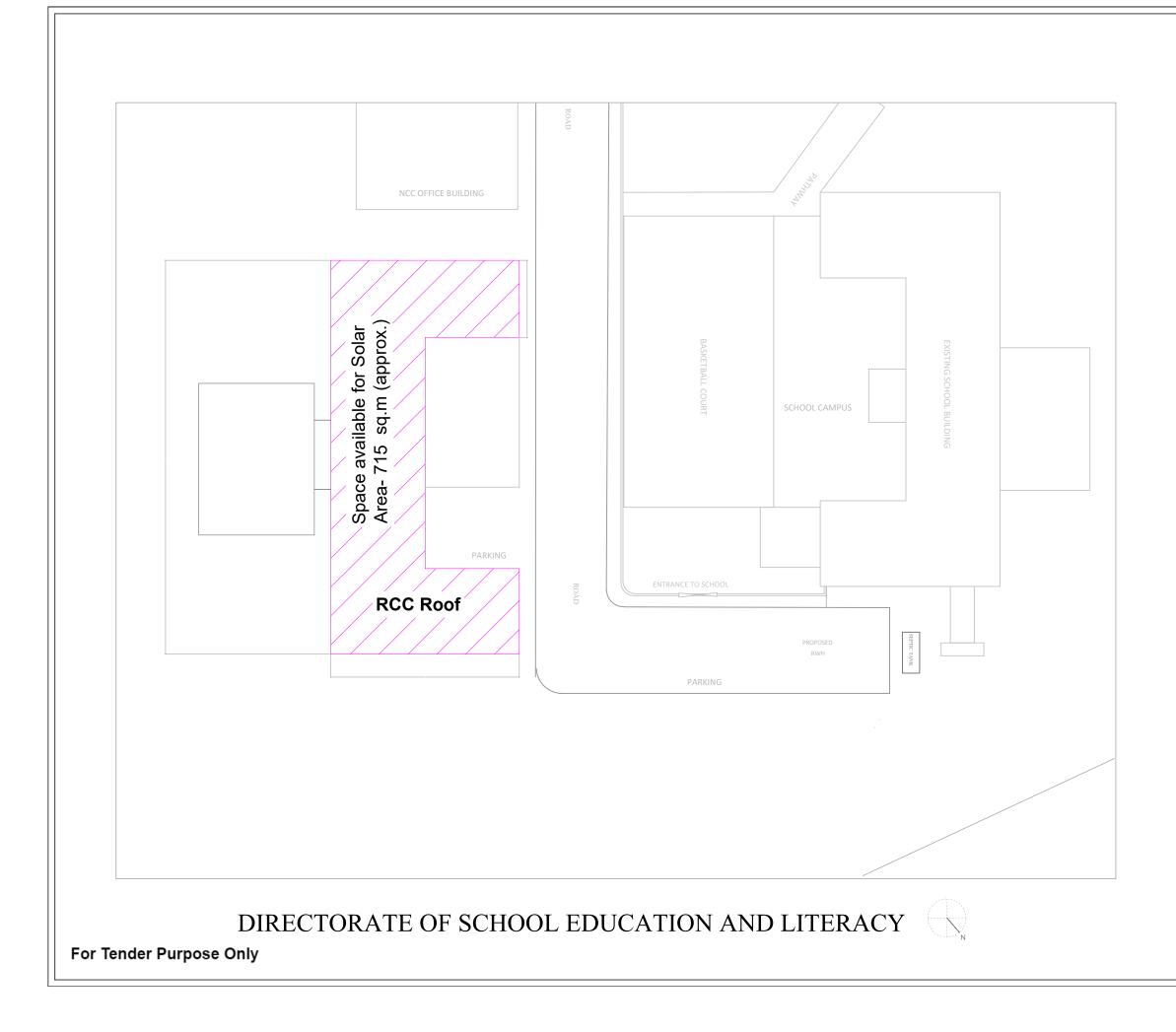
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IPAS Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062;1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 6944, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg.C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |  |  |  |  |
|---|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |
| Notes:  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |
| Submitted by  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |
|   |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |
|   |  |  |  |  |
|   |  |  |  |  |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |  |  |  |  |
| REVISION INDEX  |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR SHILLONG PUBLIC SCHOOL   |  |  |  |  |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           NTS         A3           APPROVED :           ABHILASH VERMA   |  |  |  |  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/026  |  |  |  |  |



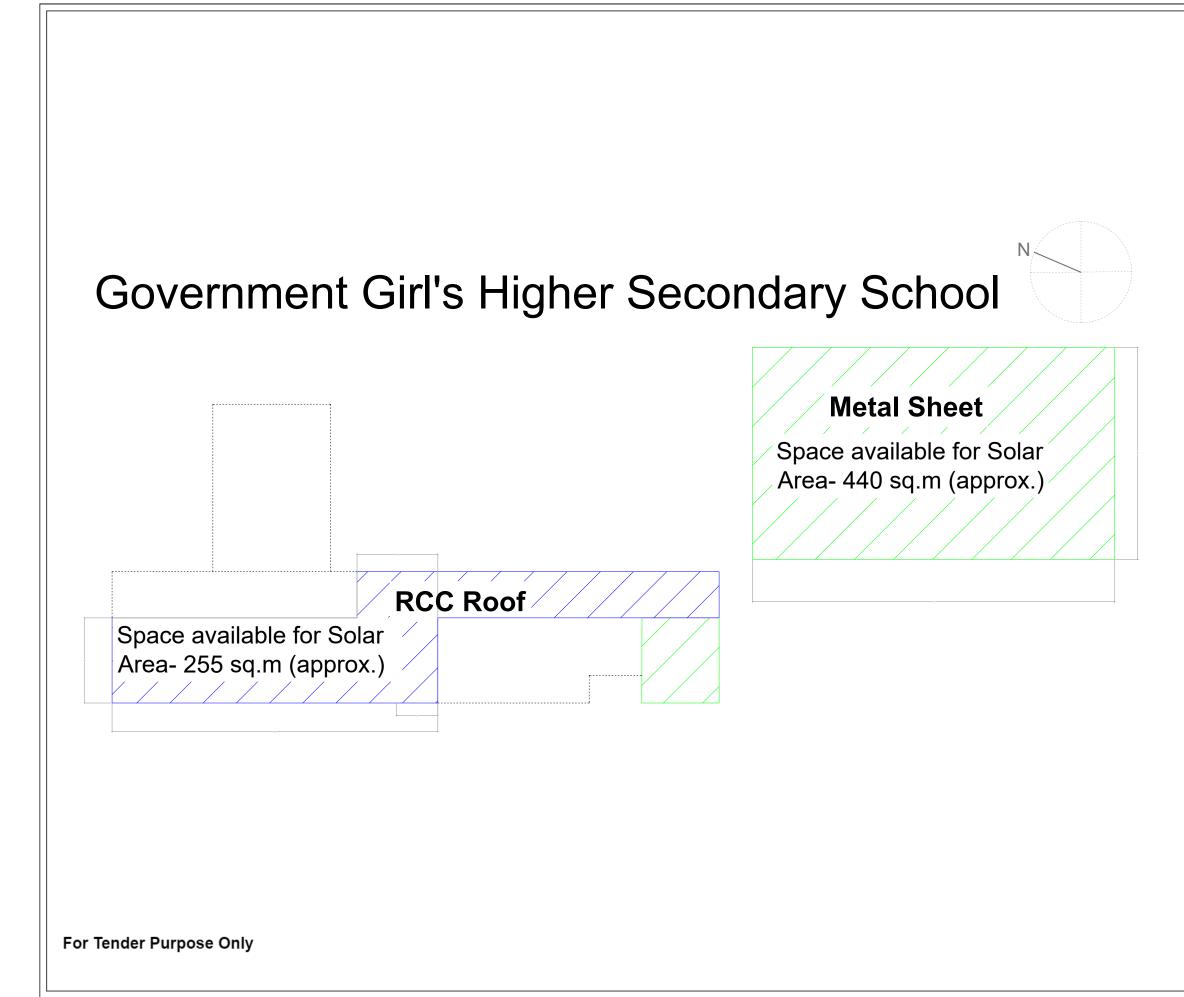
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg.C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
| METEL SHEET ROOF (GOOD CONDITION)   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| IPE GLOBAL LIMITED  |
|   |
|   |
|   |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
|   |
|   |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |
| REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR DIRECTORATE OF HIGHER<br>TECHNICAL EDUCATION   |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           M. MUSHTAQ KHAN         APPROVED :   |
| ABHILASH VERMA  |
| DRAWING NO:   |
| IPE/SSCL/MEG-SH/SOLAR/027 R 0   |



| <ol> <li>Dimen</li> <li>Solar F</li> <li>Solar F</li> <li>1730</li> <li>Solar F</li> <li>Power</li> <li>400VA</li> <li>All swit</li> <li>Part-1,</li> <li>DC DP</li> <li>IP65 Pr</li> <li>The Mugalvar</li> <li>4759.</li> <li>Cable</li> <li>IS 694,</li> </ol> | sions are to b<br>hoto Voltaic<br>Part-1, IS / IEG<br>V Modue co<br>Conditioning<br>(C, 3Ph, 4wire<br>toches & the co<br>2 & 3 and IS<br>'B's shall have<br>otection.<br>ounting Struc-<br>nization of the<br>of appropric<br>IEC 60502 / I's<br>er Board shall | the size to 1<br>s 1554. Terminal to 1<br>the size to 1 | art-2.<br>officiency shall<br>J) of 350-800 \vice<br>transport o | caled.<br>§ 14286 / IEC<br>I not be less<br>/DC Input V<br>tors shall co<br>& Vermin p<br>r latest IS 20<br>all complian<br>deg.C to +8 | oltage range and<br>nfirm to IEC 60947<br>roof confirm to<br>62:1992 &<br>ice of latest IS<br>ill meet IEC 60227 / |
|--|---|--|--|---|--|
| PROP   |   |  | ON / ARE<br>TAIC CE  |   | MOUNTING   |
| Notes  | S:  |  |  |   |  |
|  | RCC R   | 00F ((   | GOOD CO  | NDITIO  | N)   |
|  | RCC R   | OOF (E   | BAD CON  | DITION)   | )  |
|  | METEL   | SHEE   | T ROOF   | (GOOD   | CONDITION)   |
|  | METEL   | SHEE   | T ROOF   | (BAD CO   | ONDITION)  |
|  | IDI   |  | -  |   |  |
|  | IPI   | GLC  | OBAL L   | IMITE   | D  |
| GRID   | JECT:<br>CONNE(   | CTED I   |  | P SOLA  | R PHOTO -  |
| GRID   | JECT:<br>CONNE(<br>AIC SYS  | CTED F<br>TEM A  | ROOFTO   | P SOLA<br>US BUI  | R PHOTO -  |
| GRID<br>VOLT,<br>R0<br>REV.  | JECT:<br>CONNE(<br>AIC SYS  |  | ROOFTO<br>T VARIO<br>HARD CI<br>ESCRIP   | P SOLA<br>US BUI  | AR PHOTO -<br>LDINGS   |
| GRID<br>VOLT,<br>R0<br>REV.<br>REV.<br>DRAN<br>PROP  | JECT:<br>CONNEC<br>AIC SYS<br>16-05-2<br>DAT<br>SION I<br>SION I<br>WING T<br>OSED LO   |  | ROOFTO<br>T VARIO<br>HARD C/<br>ESCRIP<br>X  | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR  | R PHOTO -<br>LDINGS<br>A.V.<br>APPROV.   |
| GRID<br>VOLT,<br>R0<br>REV.<br>REV.<br>DRAN<br>PROP  | JECT:<br>CONNEC<br>AIC SYS<br>16-05-2<br>DAT<br>SION I<br>SION I<br>WING T<br>OSED LO   | CTED I<br>TEM A<br>22<br>E DE<br>NDE2<br>FITLE<br>DCATIO<br>MBOS   | ROOFTO<br>T VARIO<br>HARD CI<br>SCRIP<br>K<br>:<br>ON FOR<br>E GUES  | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>T HOUS  | R PHOTO -<br>LDINGS<br>A.V.<br>APPROV.   |
| GRID<br>VOLT,<br>R0<br>REV.<br>REV.<br>DRAN<br>PROP  | JECT:<br>CONNEC<br>AIC SYS<br>16-05-2<br>DAT<br>SION I<br>SION I<br>WING T<br>OSED LO   | CTED F<br>TEM A<br>22<br>E DE<br>NDE<br>TITLE<br>OCATIO<br>MBOS  | ROOFTO<br>T VARIO<br>HARD CI<br>SCRIP<br>K<br>:<br>ON FOR<br>E GUES  | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>T HOUS  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV.<br>ROOF TOP<br>ED :<br>AJ KYARBHIH<br>D :                                  |
| GRID<br>VOLT,<br>R0<br>REV.<br>REV.<br>DRAN<br>PROP  | JECT:<br>CONNEC<br>AIC SYS<br>16-05-2<br>DAT<br>SION I<br>SION I<br>WING T<br>OSED LO   | CTED F<br>TEM A<br>22<br>E DE<br>NDE<br>CITLE<br>CATIO<br>MBOS<br>Date:<br>16-05   | ROOFTO<br>T VARIO<br>HARD CI<br>SCRIP<br>K<br>:<br>ON FOR<br>E GUES  | P SOLA<br>US BUI<br>DPY<br>TION<br>SOLAR<br>T HOUS  | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV.<br>ROOF TOP<br>E<br>ED :<br>LJ KHARBHIH<br>D :<br>2014AN<br>ED :           |
| GRID<br>VOLT,<br>RO<br>REV.<br>REV.<br>DRAV<br>PROP<br>SYSTE   | JECT:<br>CONNEC<br>AIC SYS<br>16-05<br>ISION I<br>VING T<br>OSED L<br>EM FOR  | CTED F<br>TEM A<br>22<br>E DE<br>NDE<br>CATION<br>MBOS<br>Date:<br>16-05<br>Scale<br>NTS<br>NO:  | ROOFTO<br>T VARIO<br>HARD CI<br>SCRIP<br>K<br>:<br>ON FOR<br>E GUES<br>-2022<br>Sheet Size   | P SOLA<br>US BUI<br>OPY<br>TION<br>SOLAR<br>T HOUS<br>PREPAR<br>AZEL MESH<br>CHECKE<br>M. MUSHTAK<br>APPROV                             | AR PHOTO -<br>LDINGS<br>A.V.<br>APPROV.<br>ROOF TOP<br>E<br>ED :<br>LJ KHARBHIH<br>D :<br>2014AN<br>ED :           |



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less that 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062;1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol></li> </ol> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
|  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| IPE GLOBAL LIMITED   |
|  |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
|  |
| R016-05-22HARD COPYA.V.REV.DATEDESCRIPTIONAPPROV.  |
| REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR DIRECTORATE OF SCHOOL<br>EDUCATION AND LITERACY   |
| Date: PREPARED :<br>AZEL MESHA J KHARBHIH  |
| 16-05-2022 CHECKED :   |
| Scale         Sheet Size         M. MUSHIAU AHAN           NTS         A3         APPROVED :<br>ABHILASH VERMA   |
| DRAWING NO:  |
| IPE/SSCL/MEG-SH/SOLAR/029 R 0  |

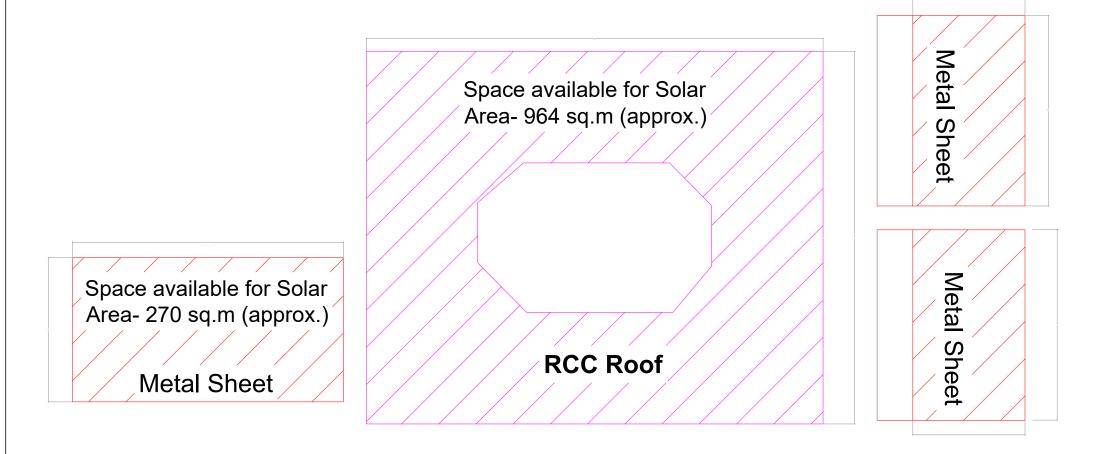


| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1.</li> <li>Solar PV Madue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheel encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg.C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol></li> </ol> |
|---|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |
| Notes:  |
| RCC ROOF (GOOD CONDITION)   |
| RCC ROOF (BAD CONDITION)  |
|   |
| METEL SHEET ROOF (BAD CONDITION)  |
| Submitted by  |
| SHILLONG SMART CITY LIMITED   |
| Consultant  |
|   |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |
| R0         16-05-22         HARD COPY         A.V.  |
| REV. DATE DESCRIPTION APPROV.   |
| REVISION INDEX<br>DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR GOVERNMENT GIRL'S HIGHER<br>SECONDARY SCHOOL   |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           NTS         A3           APPROVED :           ABHILASH VERMA   |
| DRAWING NO:   |
| IPE/SSCL/MEG-SH/SOLAR/030 R 0   |

### Government Boy's Higher Secondary School



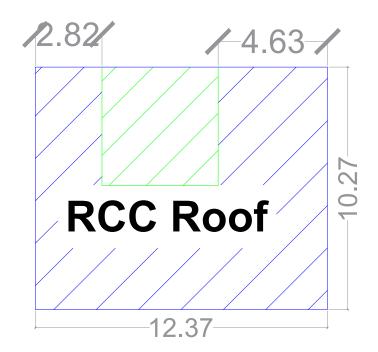
Space available for Solar Area- 148 sq.m (approx.)



Space available for Solar Area- 148 sq.m (approx.)

| GENERAL NOT  | TES:   |   |  |  |  |
|--|--|---|--|--|--|
| 1. All dimensions are in meters, if otherwise specified.   |  |   |  |  |  |
| 2. Dimensions are to be read and not to be scaled.   |  |   |  |  |  |
| <ol> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC<br/>61730 Part-1, IS / IEC 61730 Part-2.</li> </ol> |  |   |  |  |  |
| 4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.   |  |   |  |  |  |
| 5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and  |  |   |  |  |  |
| 400VAC, 3Ph, 4wire, 50Hz.  |  |   |  |  |  |
| 6. All switches & the circuit breakers. connectors shall confirm to IEC 60947  |  |   |  |  |  |
| Part-1, 2 & 3 and IS 60947 Part-1, 2 &3.   |  |   |  |  |  |
| 7. DC DPB's shall have sheet encosers of dust & Vermin proof confirm to  |  |   |  |  |  |
| IP65 Protection.<br>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &   |  |   |  |  |  |
| galvanization of the mounting structure shall compliance of latest IS  |  |   |  |  |  |
| galvanization of the mounting structure shall compliance of latest IS 4759.  |  |   |  |  |  |
|  |  |   |  |  |  |
| 9. Cable of appropriate size to be used in the system shall meet IEC 60227 /   |  |   |  |  |  |
| IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C   |  |   |  |  |  |
| 10. Danger Board shall be provided as and where necessary as per IE Act /  |  |   |  |  |  |
|  |  | 1   |  |  |  |
|  |  | 1   |  |  |  |
|  |  | 1   |  |  |  |
|  |  |   |  |  |  |
|  |  | 1   |  |  |  |
|  |  |   |  |  |  |
| LEGENDS:   |  | 1   |  |  |  |
| PROPOSED L   | OCATION / AREA FOR   | MOUNTING  |  |  |  |
|  | OCATION / AREA FOR   | WOONTING  |  |  |  |
| SULAR FILL   | 0-VULTAIG GELL   | 1   |  |  |  |
|  |  |   |  |  |  |
| Notes:   |  |   |  |  |  |
|  |  | 1   |  |  |  |
| RCC R  | OOF (GOOD CONDITIO   | N)  |  |  |  |
|  |  | 19)   |  |  |  |
|  |  | 1   |  |  |  |
|  | COOF (BAD CONDITION)   | ) [   |  |  |  |
|  |  | 1   |  |  |  |
| METEL  | SHEET ROOF (GOOD   | CONDITION)  |  |  |  |
| K///a  |  |   |  |  |  |
| METEL  | _ SHEET ROOF (BAD CO   |   |  |  |  |
|  | - OHLET 1000. (  |   |  |  |  |
| Submitted by   |  |   |  |  |  |
|  |  |   |  |  |  |
| SHILLON  | IG SMART CITY L  | IMITED  |  |  |  |
| Consultant   |  |   |  |  |  |
| -  |  | .   |  |  |  |
| ١٢   | E GLOBAL LIMITE  | D   |  |  |  |
|  |  | 1   |  |  |  |
| 1  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
| PROJECT:   |  |   |  |  |  |
|  |  |   |  |  |  |
| GRID CONNE   | CTED ROOFTOP SOLA  |   |  |  |  |
| GRID CONNE   | CTED ROOFTOP SOLA  |   |  |  |  |
| GRID CONNE   |  |   |  |  |  |
| GRID CONNE   |  |   |  |  |  |
| GRID CONNE   |  |   |  |  |  |
| GRID CONNE   |  |   |  |  |  |
| GRID CONNE   |  |   |  |  |  |
| GRID CONNE   |  |   |  |  |  |
| GRID CONNE   | STEM AT VARIOUS BUI  |   |  |  |  |
| GRID CONNE<br>VOLTAIC SYS  | 22 HARD COPY   | A.V.  |  |  |  |
| GRID CONNE<br>VOLTAIC SYS  | STEM AT VARIOUS BUI  | A.V.  |  |  |  |
| R0 16-05-<br>REV. DAT  | 22 HARD COPY<br>E DESCRIPTION  | A.V.  |  |  |  |
| GRID CONNE<br>VOLTAIC SYS  | 22 HARD COPY<br>E DESCRIPTION  | A.V.  |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION  | 22 HARD COPY<br>E DESCRIPTION  | A.V.  |  |  |  |
| R0 16-05-<br>REV. DAT  | 22 HARD COPY<br>E DESCRIPTION  | A.V.  |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION  | 22 HARD COPY<br>E DESCRIPTION  | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION  | 22 HARD COPY<br>E DESCRIPTION<br>INDEX<br>TITLE:<br>.0CATION FOR SOLAR   | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22 HARD COPY<br>22 HARD COPY<br>22 DESCRIPTION<br>INDEX<br>TITLE:<br>.OCATION FOR SOLAR<br>3 GOVERNMENT BOY'S  | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION  | 22 HARD COPY<br>22 HARD COPY<br>22 DESCRIPTION<br>INDEX<br>TITLE:<br>.OCATION FOR SOLAR<br>3 GOVERNMENT BOY'S  | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22 HARD COPY<br>22 HARD COPY<br>22 DESCRIPTION<br>INDEX<br>TITLE:<br>.OCATION FOR SOLAR<br>3 GOVERNMENT BOY'S  | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | AT VARIOUS BUI   | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | AT VARIOUS BUI   | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22 HARD COPY<br>22 HARD COPY<br>2 DESCRIPTION<br>INDEX<br>TITLE:<br>0CATION FOR SOLAR<br>3 GOVERNMENT BOY'S<br>SCHOOL<br>Date: PREPAR<br>16-05-2022  | A.V.<br>APPROV.   |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22 HARD COPY<br>22 HARD COPY<br>22 E DESCRIPTION<br>INDEX<br>TITLE:<br>OCATION FOR SOLAR<br>2 GOVERNMENT BOY'S<br>SCHOOL<br>Date: PREPAR<br>16-05-2022 CHECKE  | A.V.<br>A.V.<br>APPROV.<br>ROOF TOP<br>HIGHER<br>ED :<br>AJ KHARBHIH<br>D :           |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22 HARD COPY<br>22 HARD COPY<br>2 DESCRIPTION<br>INDEX<br>TITLE:<br>0CATION FOR SOLAR<br>3 GOVERNMENT BOY'S<br>SCHOOL<br>Date:<br>16-05-2022<br>PREPAR<br>42EL MESH  | A.V.<br>A.V.<br>APPROV.<br>ROOF TOP<br>HIGHER<br>ED :<br>AJ KHARBHIH<br>D :           |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22 HARD COPY<br>22 HARD COPY<br>22 E DESCRIPTION<br>INDEX<br>TITLE:<br>OCATION FOR SOLAR<br>2 GOVERNMENT BOY'S<br>SCHOOL<br>Date: PREPAR<br>16-05-2022 CHECKE<br>Scale Sheet Size MAUSTRIA   | A.V.<br>A.V.<br>APPROV.<br>ROOF TOP<br>HIGHER<br>ED :<br>AJ KHARBHIH<br>D :<br>2 KHAN |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | CHECKE<br>STEM AT VARIOUS BUI  | A.V.<br>A.V.<br>APPROV.   |  |  |  |
| GRID CONNE<br>VOLTAIC SYS<br>R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR<br>SECONDARY                   | 22     HARD COPY       22     HARD COPY       E     DESCRIPTION       INDEX     INDEX       TITLE:     OCATION FOR SOLAR       GOVERNMENT BOY'S     SCHOOL       Date:     PREPAR       16-05-2022     PREPAR       Scale     Sheet Size       NTS     A3  | LDINGS  |  |  |  |
| R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR   | 22     HARD COPY       22     HARD COPY       E     DESCRIPTION       INDEX     INDEX       TITLE:     OCATION FOR SOLAR       GOVERNMENT BOY'S     SCHOOL       Date:     PREPAR       16-05-2022     PREPAR       Scale     Sheet Size       NTS     A3  | A.V.<br>A.V.<br>APPROV.   |  |  |  |
| GRID CONNE<br>VOLTAIC SYS<br>R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR<br>SECONDARY<br>DRAWING        | Control for solar scale sheet size As a multiple scale | LDINGS  |  |  |  |
| GRID CONNE<br>VOLTAIC SYS<br>R0 16-05-<br>REV. DAT<br>REVISION<br>DRAWING<br>PROPOSED L<br>SYSTEM FOR<br>SECONDARY<br>DRAWING        | 22     HARD COPY       22     HARD COPY       E     DESCRIPTION       INDEX     INDEX       TITLE:     OCATION FOR SOLAR       GOVERNMENT BOY'S     SCHOOL       Date:     PREPAR       16-05-2022     PREPAR       Scale     Sheet Size       NTS     A3  | LDINGS  |  |  |  |

### MEGHALAYA STATE WAREHOUSING CORPORATION

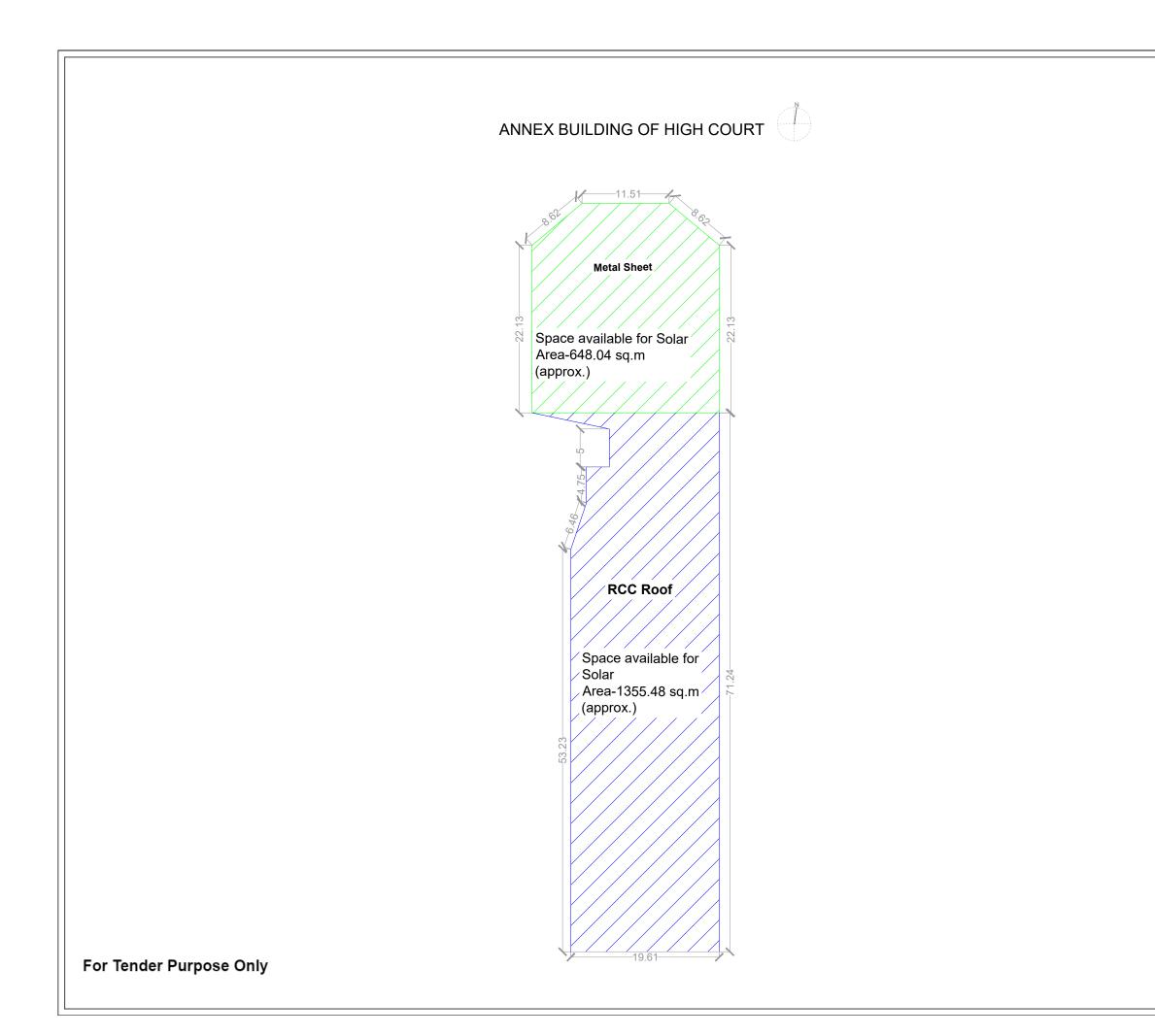


Space available for Solar Area- 88.21 sq. m(approx.)

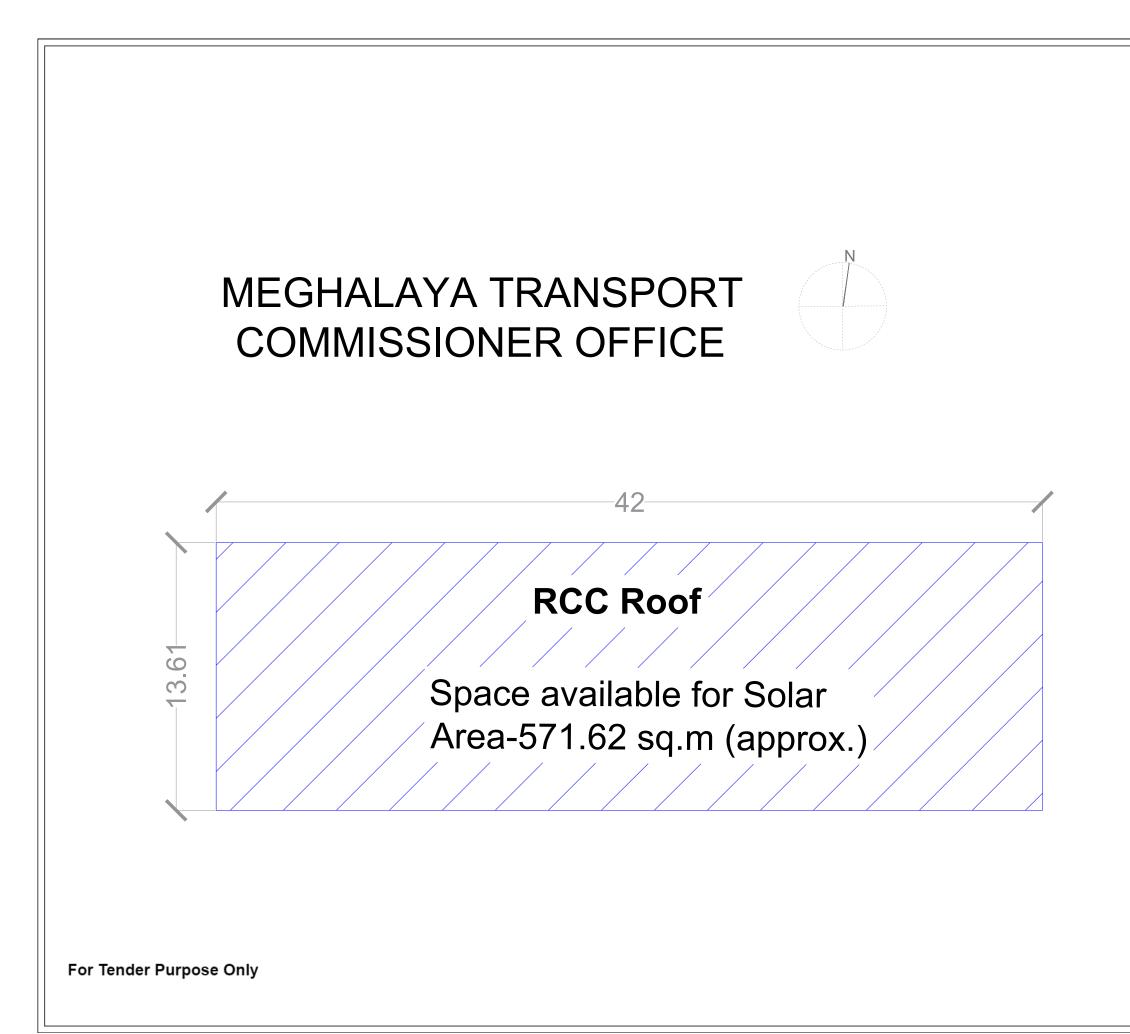
For Tender Purpose Only

| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, Soltz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60302 / IS 1554. Temp range-10 deg., C to +80 Deg., C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
| METEL SHEET ROOF (GOOD CONDITION)  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| IPE GLOBAL LIMITED   |
|  |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
| R0     16-05-22     HARD COPY     A.V.       REV.     DATE     DESCRIPTION     APPROV.       REVISION INDEX  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR MEGHALAYA STATE<br>WAREHOUSING CORPORATION  |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :  |
| Scale         Sheet Size         M. MUSHTAQ KHAN           NTS         A3         APPROVED :<br>ABHILASH VERMA   |
| DRAWING NO:  |
| IPE/SSCL/MEG-SH/SOLAR/032 R 0  |

Ν

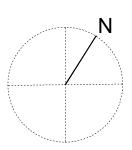


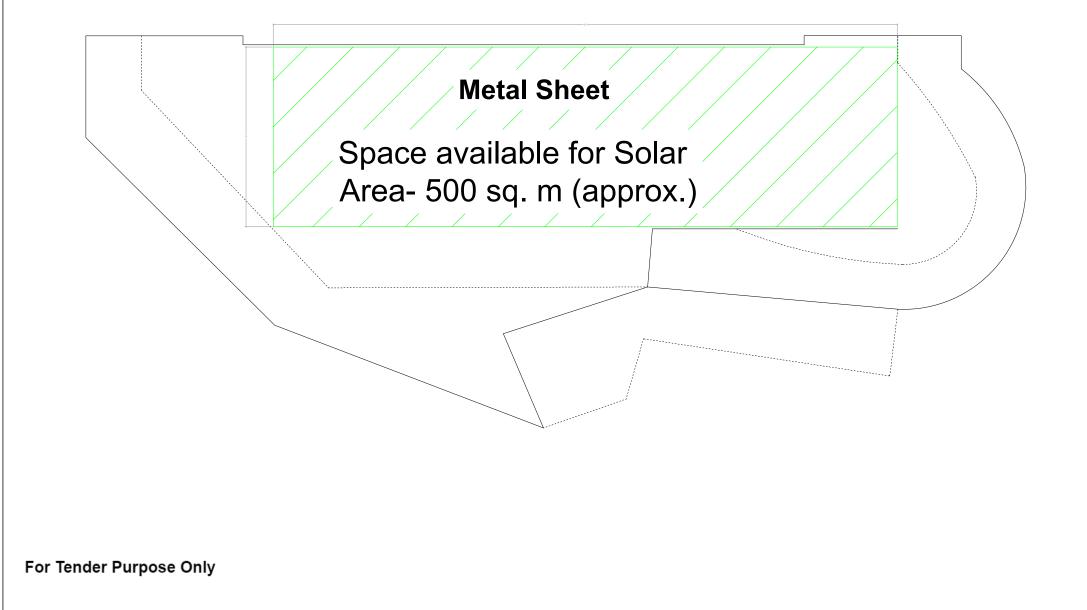
| GENERAL NOTES:<br>1. All dimensions are in meters, if otherwise specified.<br>2. Dimensions are to be read and not to be scaled.<br>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS<br>61730 Part-1, IS / IEC 61730 Part-2.<br>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%<br>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage ran<br>conversion efficiency and the conversion efficiency shall not be less tha 16.5%<br>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage ran |               |
|--|---------------|
| <ol> <li>400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to EC Part-1, 2 &amp; 3 and 15 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confir IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of late: 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC</li> </ol>                                    | m to<br>st IS |
| IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C<br>10. Danger Board shall be provided as and where necessary as per<br>IE Rules.  |               |
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUN<br>SOLAR PHOTO-VOLTAIC CELL  | ITING         |
| Notes:   |               |
| RCC ROOF (GOOD CONDITION)  |               |
| RCC ROOF (BAD CONDITION)   |               |
| METEL SHEET ROOF (GOOD CONDI   | FION)         |
| METEL SHEET ROOF (BAD CONDITIO   | ON)           |
| Submitted by<br>SHILLONG SMART CITY LIMITE   | D             |
| Consultant IPE GLOBAL LIMITED  |               |
|  |               |
|  |               |
|  |               |
| PROJECT:   |               |
| GRID CONNECTED ROOFTOP SOLAR PHC<br>VOLTAIC SYSTEM AT VARIOUS BUILDING   |               |
|  |               |
| R0 16-05-22 HARD COPY A  | .V.           |
| R0     16-05-22     HARD COPY     A       REV.     DATE     DESCRIPTION     APP       REVISION INDEX   |               |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>SYSTEM FOR ANNEX BUILDING OF HIGH<br>COURT   | ТОР           |
| Date: PREPARED :<br>azel mesha j kharibili   |               |
| 16-05-2022 CHECKED :<br>Scale Sheet Size M. MUSHTAQ KHAN   |               |
| NTS A3 APPROVED : ABHILASH VERMA   |               |
| DRAWING NO:  | SION          |
| IPE/SSCL/MEG-SH/SOLAR/033  | 0             |



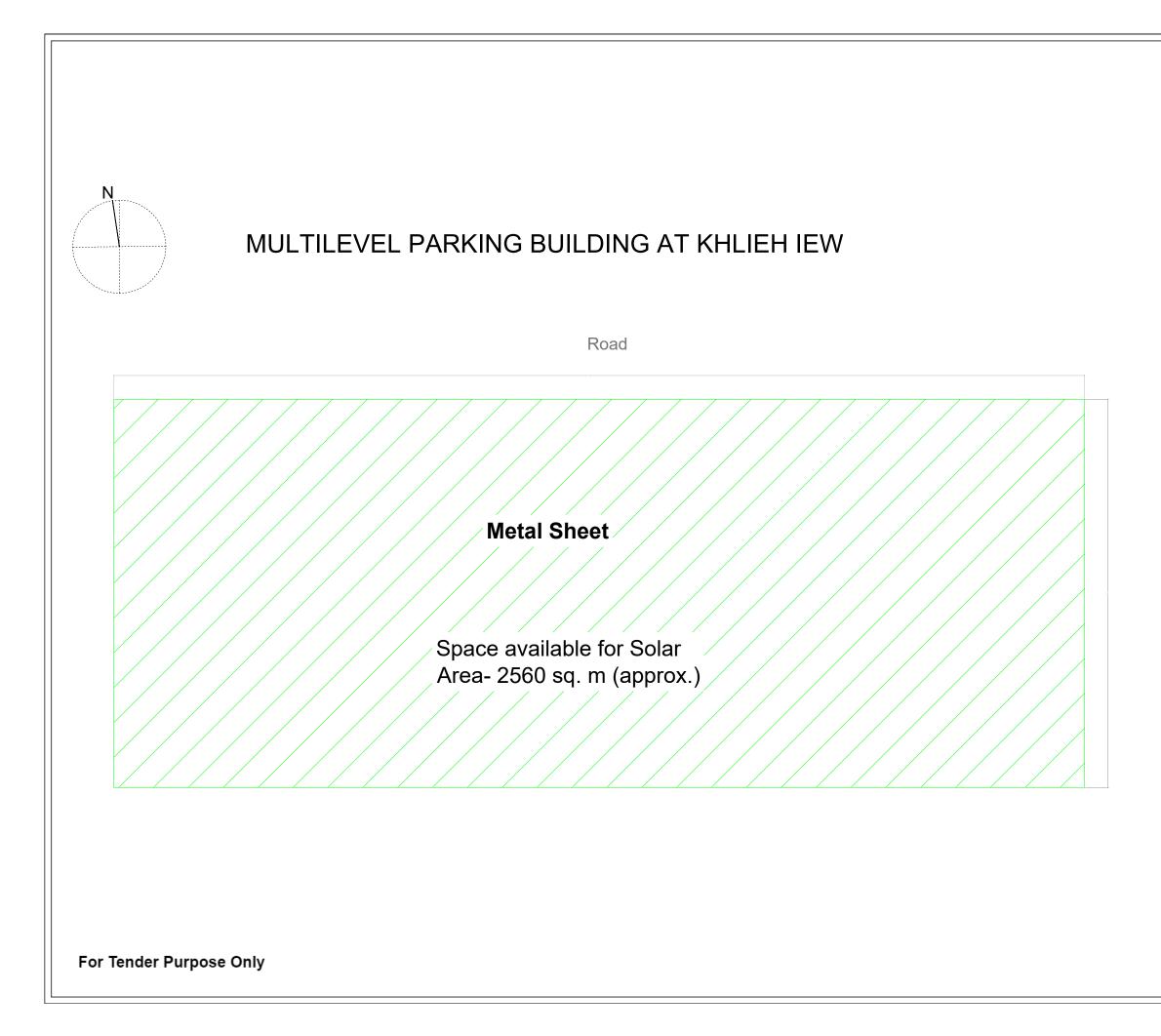
| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>5. Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>9. Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>10. Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ul> |
|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL  |
| Notes:   |
| RCC ROOF (GOOD CONDITION)  |
| RCC ROOF (BAD CONDITION)   |
| METEL SHEET ROOF (GOOD CONDITION)  |
| METEL SHEET ROOF (BAD CONDITION)   |
| Submitted by   |
| SHILLONG SMART CITY LIMITED  |
| IPE GLOBAL LIMITED   |
|  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS  |
|  |
|  |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.  |
| REVISION INDEX   |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF TOP<br>SYSTEM FOR MEGHALAYA TRANSPORT<br>COMMISSIONER OFFICE  |
| Date: PREPARED :<br>AZEL MESHA J KHARBHIH  |
| 16-05-2022 CHECKED :<br>Scale Sheet Size M. MUSHTAQ KHAN   |
| NTS A3 APPROVED :<br>ABHILASH VERMA  |
| DRAWING NO:  |
| IPE/SSCL/MEG-SH/SOLAR/034 R 0  |

#### MULTILEVEL CAR PARKING AT MOTPHRAN





| 3. Solar Ph<br>61730 P  |  | neieis,   | if otherwise sp  | ecified.   |   |  |
|---|--|-----------|--|--|---|--|
|   | noto Voltaic m   | nodule d  |  |  | C 61215, IS / IEC   |  |
|   |  | version e | efficiency shal  |  | tha 16.5%.<br>Oltage range and  |  |
| 400VAC  | C, 3Ph, 4wire, 5   | 50Hz.     |  |  | nfirm to IEC 60947  |  |
| 7. DC DPB   |  |           |  | & Vermin p   | roof confirm to   |  |
|   | unting Structu   |           | shall be as per<br>g structure sha                                   |  |   |  |
| 4759.   |  |           |  |  | all meet IEC 60227 /  |  |
| IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C 10.Danger Board shall be provided as and where necessary as per IE Act / |  |           |  |  |   |  |
| IE Rules.   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
| LEGE  | NDS:   |           |  |  |   |  |
| -   |  |           | ION / ARE  |  | MOUNTING  |  |
| Notes   | :  |           |  |  |   |  |
|   | RCC RO   | OF (      | GOOD CC  | NDITIO   | N)  |  |
|   | RCC RO   | OF (      | BAD CON  |  | )   |  |
|   | METEL S  | HEE       | TROOF (  | GOOD   | CONDITION)  |  |
|   | METEL S  | SHEE      | T ROOF   | (BAD C   | ONDITION)   |  |
| Submitted b   | у  |           |  |  |   |  |
| _   | ILLONG   | g si      | MART   | CITY L   | IMITED  |  |
| Consultant  | IPF  | GI        | OBAL L   | IMITE  | D   |  |
|   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
|   |  |           |  |  |   |  |
| PRO   | JECT:  |           |  |  |   |  |
| GRID (  | CONNEC   |           |  |  | NR PHOTO -  |  |
| GRID (  | CONNEC   |           | ROOFTO<br>T VARIO  |  |   |  |
| GRID (  | CONNEC   |           |  |  |   |  |
| GRID (  | CONNEC   |           |  |  |   |  |
| GRID C<br>VOLTA   | CONNEC   |           | AT VARIO   | US BUI   |   |  |
| GRID (  | CONNEC<br>AIC SYST   | EM A      |  | US BUI   |   |  |
| R0<br>REV.  | CONNEC<br>AIC SYST   |           | HARD CO  | US BUI   | LDINGS<br>A.V.  |  |
| GRID C<br>VOLTA<br>R0<br>REV.<br>REVIS  | CONNEC<br>AIC SYST   |           | HARD CO  | US BUI   | LDINGS<br>A.V.  |  |
| R0<br>REV.<br>REVIS   | CONNEC<br>AIC SYST<br>16-05-22<br>DATE<br>SION IN<br>VING TI<br>DSED LO                        |           | HARD CO<br>ESCRIP<br>X<br>:<br>ON FOR                                | DPY<br>TION<br>SOLAR   | A.V.<br>APPROV.   |  |
| R0<br>REV.<br>REVIS   | 16-05-22<br>DATE<br>SION IN<br>VING TI<br>DSED LO<br>YSTEM F                                   |           | HARD CO<br>ESCRIP  | DPY<br>TION<br>SOLAR   | A.V.<br>APPROV  |  |
| R0<br>REV.<br>REVIS   | CONNEC<br>AIC SYST<br>16-05-22<br>DATE<br>SION IN<br>VING TI<br>DSED LO<br>YSTEM F<br>LEVEL C  |           | HARD CO<br>ESCRIP<br>X<br>:<br>ON FOR<br>PROPOSE                     | DPY<br>TION<br>SOLAR   | A.V.<br>APPROV.   |  |
| R0<br>REV.<br>REVIS   | CONNEC<br>AIC SYST<br>16-05-22<br>DATE<br>SION IN<br>VING TI<br>DSED LO<br>YSTEM F<br>-LEVEL C | EM A      | HARD CO<br>ESCRIP<br>X<br>:<br>ON FOR<br>PROPOSE                     | DPY<br>TION<br>SOLAR<br>ED NEW<br>AT MO  | A.V.<br>APPROV.   |  |
| R0<br>REV.<br>REVIS   | CONNEC<br>INC SYST<br>16-05-22<br>DATE<br>SION IN<br>SION IN<br>SED LO<br>YSTEM F<br>LEVEL C   | EM A      | HARD CO<br>ESCRIP<br>X<br>: ON FOR<br>PARKING<br>-2022<br>Sheet Size | DPY<br>TION<br>SOLAR<br>AT MO<br>PREPAR<br>AZEL MESH<br>CHECKE<br>M. MUSHTAI                     | A.V.<br>APPROV.<br>ROOF<br>/<br>TPHRAN<br>ED :<br>axikharabhih<br>D :<br>axikharabhih |  |
| R0<br>REV.<br>REVIS   | CONNEC<br>INC SYST<br>16-05-22<br>DATE<br>SION IN<br>SION IN<br>SED LO<br>YSTEM F<br>LEVEL C   | EM A      | HARD CO<br>ESCRIP<br>X<br>:<br>ON FOR<br>PROPOSE<br>PARKING          | DPY<br>TION<br>SOLAR<br>ED NEV<br>AT MO<br>PREPAR<br>AZEL MESH<br>CHECKE                         | A.V.<br>A.V.<br>APPROV.   |  |
| R0<br>REV.<br>REVIS   | CONNEC<br>INC SYST<br>16-05-22<br>DATE<br>SION IN<br>SION IN<br>SED LO<br>YSTEM F<br>LEVEL C   | EM A      | HARD CO<br>ESCRIP<br>X<br>: ON FOR<br>PARKING<br>-2022<br>Sheet Size | DPY<br>TION<br>SOLAR<br>ED NEW<br>AT MO<br>PREPAR<br>AZEL MESH<br>CHECKE<br>M. MUSHTAI<br>APPROV | A.V.<br>A.V.<br>APPROV.   |  |



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and 15 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IPAS Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg.C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol></li> </ol> |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |  |  |
| Notes:  |  |  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |  |  |
| Submitted by  |  |  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
| R0 16-05-22 HARD COPY A.V.  |  |  |  |  |  |  |
| REV. DATE DESCRIPTION APPROV.   |  |  |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR EXISTING MULTILEVEL<br>PARKING BUILDING AT KHLIEH IEW  |  |  |  |  |  |  |
| Date: PREPARED :  |  |  |  |  |  |  |
| 16-05-2022 CHECKED :  |  |  |  |  |  |  |
| Scale         Sheet Size         M. MUSHTAQ KHAN           NTS         A3         APPROVED :<br>ABHILASH VERMA  |  |  |  |  |  |  |
| DRAWING NO:   |  |  |  |  |  |  |
| IPE/SSCL/MEG-SH/SOLAR/036 R 0   |  |  |  |  |  |  |



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / Is 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>Donger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |  |  |  |  |  |
|---|--|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |  |
| Notes:  |  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |  |
| Submitted by  |  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |  |
|   |  |  |  |  |  |
|   |  |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |  |
|   |  |  |  |  |  |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |  |  |  |  |  |
| REVISION INDEX  |  |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR EXISTING MULTILEVEL<br>PARKING BUILDING AT MOWLONGHAT<br>Date:<br>16-05-2022<br>Scale Sheet Size<br>M. MUSHTAQ KHAN  |  |  |  |  |  |
| NTS A3 APPROVED :<br>ABHILASH VERMA   |  |  |  |  |  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/037 R 0  |  |  |  |  |  |

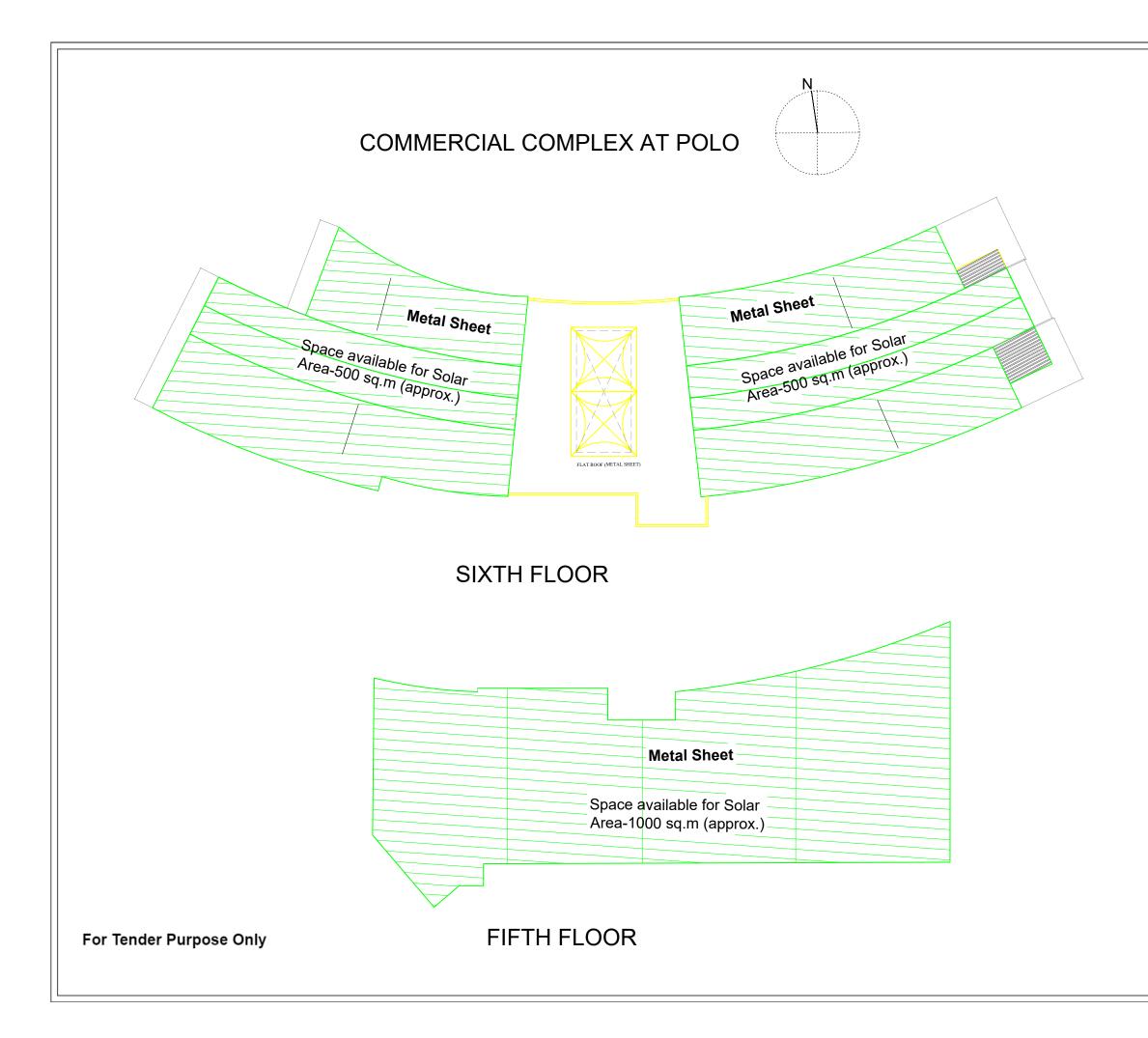
#### MULTILEVEL PARKING BUILDING OPPOSITE ANJALEE GALLERIA



Metal Sheet

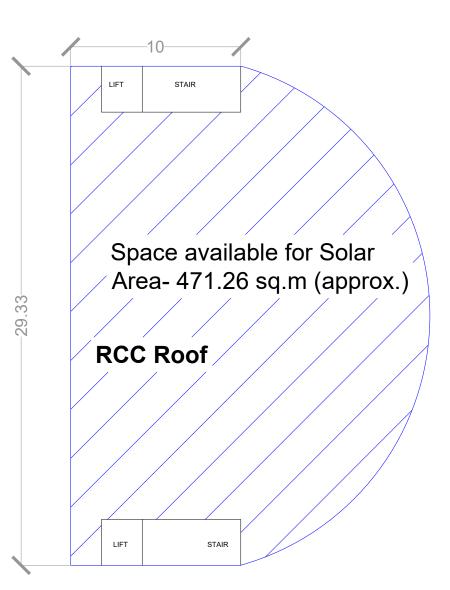
Space available for Solar Area- 2400 sq. m (approx.)

| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Pholo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning funit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol> </li> </ol> |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |  |  |
| Notes:  |  |  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |  |  |
| Submitted by  |  |  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |  |  |  |  |  |  |
| REVISION INDEX  |  |  |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR EXISTING MULTILEVEL<br>PARKING BUILDING OPPOSITE TO ANJALEE<br>GALLERIA  |  |  |  |  |  |  |
| Date:         PREPARED :           16-05-2022         AZEL MESHA J KHARBHIH           CHECKED :         CHECKED :           Scale         Sheet Size           NTS         A3           APPROVED :           ABHILASH VERMA   |  |  |  |  |  |  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/038 R 0  |  |  |  |  |  |  |



| <ul> <li>GENERAL NOTES:</li> <li>1. All dimensions are in meters, if otherwise specified.</li> <li>2. Dimensions are to be read and not to be scaled.</li> <li>3. Solar Photo Voltaic module confirming to IS 14286 / IE<br/>61730 Part-1, IS / IEC 61730 Part-2.</li> <li>4. Solar PV Modue conversion efficiency shall not be less<br/>5. Power Conditioning Unit (PCU) of 350-800 VDC Input<br/>400VAC, 3Ph, 4wire, 50Hz.</li> <li>6. All switches &amp; the circuit breakers, connectors shall co<br/>Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>7. DC DPB's shall have sheet encosers of dust &amp; Vermin p<br/>IP65 Protection.</li> <li>8. The Mounting Structuresteel shall be as per latest IS 20<br/>galvanization of the mounting structure shall complia<br/>4759.</li> <li>9. Cable of appropriate size to be used in the system shi<br/>IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +6<br/>10. Danger Board shall be provided as and where neces<br/>IE Rules.</li> </ul> | s tha 16.5%.<br>Voltage range and<br>onfirm to IEC 60947<br>proof confirm to<br>062:1992 &<br>nce of latest IS<br>all meet IEC 60227 /<br>30 Deg, C |  |  |  |  |  |
|--|---|--|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR<br>SOLAR PHOTO-VOLTAIC CELL   | R MOUNTING  |  |  |  |  |  |
| Notes:   |   |  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)  |   |  |  |  |  |  |
| RCC ROOF (BAD CONDITION  | RCC ROOF (BAD CONDITION)  |  |  |  |  |  |
|  |   |  |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)   |   |  |  |  |  |  |
| Submitted by   |   |  |  |  |  |  |
| SHILLONG SMART CITY L  | IMITED  |  |  |  |  |  |
| IPE GLOBAL LIMITE  | D   |  |  |  |  |  |
|  |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLA<br>VOLTAIC SYSTEM AT VARIOUS BUI   |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
| R0 16-05-22 HARD COPY<br>REV. DATE DESCRIPTION   | A.V.  |  |  |  |  |  |
| REVISION INDEX   | 7.111.000.  |  |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR<br>TOP SYSTEM FOR PROPOSED CON<br>COMPLEX AT POLO  |   |  |  |  |  |  |
| 16-05-2022     CHECKE       Scale     Sheet Size       NTS     A3  | ia j kharbhih<br>ED :<br>.Q khan<br>/ED :   |  |  |  |  |  |
| ABHILASH   | REVISION  |  |  |  |  |  |
| DRAWING NO:<br>IPE/SSCL/MEG-SH/SOLAR/039   | R 0   |  |  |  |  |  |

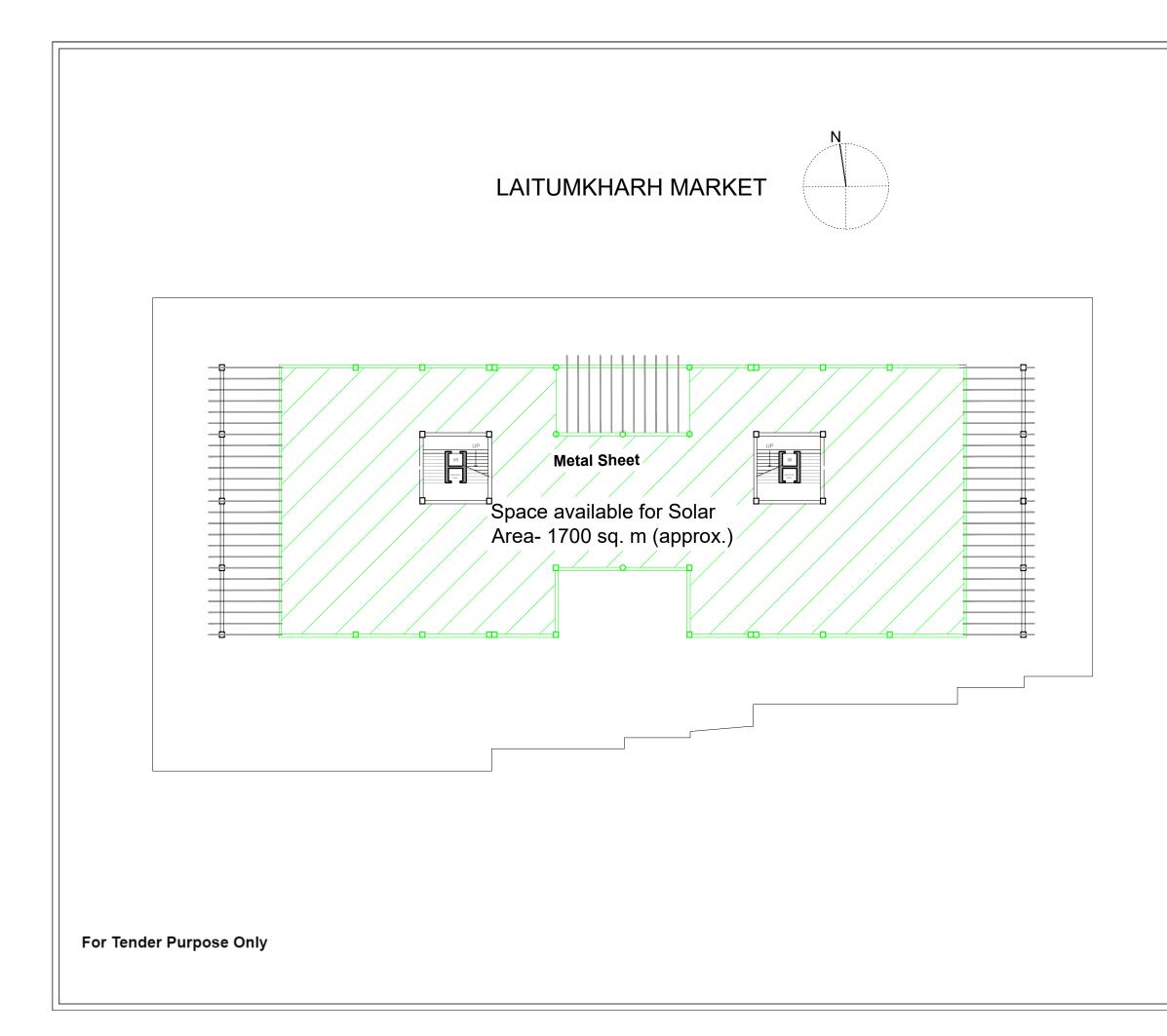
## INTEGRATED COMMAND AND CONTROL CENTRE



For Tender Purpose Only

| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1, IS / IEC 61730 Part-2.</li> <li>Solar PV Modue conversion efficiency shall not be less that 16.5%.</li> <li>Power Conditioning built (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers. connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and 16 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062;1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg. C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol></li> </ol> |  |  |  |  |  |
|---|--|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |  |
| Notes:  |  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |  |
|   |  |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |  |
| Submitted by  |  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |  |
|   |  |  |  |  |  |
| PROJECT:<br>GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |  |
|   |  |  |  |  |  |
| R016-05-22HARD COPYA.V.REV.DATEDESCRIPTIONAPPROV.REVISION INDEX   |  |  |  |  |  |
| DRAWING TITLE:<br>PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR PROPOSED BUILDING FOR<br>INTEGRATED COMMAND AND CONTROL<br>CENTRE (ICCC)   |  |  |  |  |  |
| Date:     PREPARED :       16-05-2022     AZEL MESHA J KHARBHIH       CHECKED :     CHECKED :       Scale     Sheet Size       NTS     A3   |  |  |  |  |  |
| DRAWING NO:   |  |  |  |  |  |
| IPE/SSCL/MEG-SH/SOLAR/040 R 0   |  |  |  |  |  |

N



| <ol> <li>GENERAL NOTES:         <ol> <li>All dimensions are in meters, if otherwise specified.</li> <li>Dimensions are to be read and not to be scaled.</li> <li>Solar Photo Voltaic module confirming to IS 14286 / IEC 61215, IS / IEC 61730 Part-1.</li> <li>Solar PV Madue conversion efficiency shall not be less tha 16.5%.</li> <li>Power Conditioning Unit (PCU) of 350-800 VDC Input Voltage range and 400VAC, 3Ph, 4wire, 50Hz.</li> <li>All switches &amp; the circuit breakers, connectors shall confirm to IEC 60947 Part-1, 2 &amp; 3 and IS 60947 Part-1, 2 &amp; 3.</li> <li>DC DPB's shall have sheet encosers of dust &amp; Vermin proof confirm to IP65 Protection.</li> <li>The Mounting Structuresteel shall be as per latest IS 2062:1992 &amp; galvanization of the mounting structure shall compliance of latest IS 4759.</li> <li>Cable of appropriate size to be used in the system shall meet IEC 60227 / IS 694, IEC 60502 / IS 1554. Temp range-10 deg.C to +80 Deg.C</li> <li>Danger Board shall be provided as and where necessary as per IE Act / IE Rules.</li> </ol></li> </ol> |  |  |  |  |  |
|---|--|--|--|--|--|
| LEGENDS:<br>PROPOSED LOCATION / AREA FOR MOUNTING<br>SOLAR PHOTO-VOLTAIC CELL   |  |  |  |  |  |
| Notes:  |  |  |  |  |  |
| RCC ROOF (GOOD CONDITION)   |  |  |  |  |  |
| RCC ROOF (BAD CONDITION)  |  |  |  |  |  |
| METEL SHEET ROOF (GOOD CONDITION)   |  |  |  |  |  |
| METEL SHEET ROOF (BAD CONDITION)  |  |  |  |  |  |
| Submitted by  |  |  |  |  |  |
| SHILLONG SMART CITY LIMITED   |  |  |  |  |  |
| IPE GLOBAL LIMITED  |  |  |  |  |  |
|   |  |  |  |  |  |
| GRID CONNECTED ROOFTOP SOLAR PHOTO -<br>VOLTAIC SYSTEM AT VARIOUS BUILDINGS   |  |  |  |  |  |
|   |  |  |  |  |  |
|   |  |  |  |  |  |
| R0 16-05-22 HARD COPY A.V.<br>REV. DATE DESCRIPTION APPROV.   |  |  |  |  |  |
| REVISION INDEX  |  |  |  |  |  |
| DRAWING TITLE:  |  |  |  |  |  |
| PROPOSED LOCATION FOR SOLAR ROOF<br>TOP SYSTEM FOR PROPOSED LAITUMKHRAH<br>MARKET   |  |  |  |  |  |
| TOP SYSTEM FOR PROPOSED LAITUMKHRAH<br>MARKET   |  |  |  |  |  |
| TOP SYSTEM FOR PROPOSED LAITUMKHRAH<br>MARKET Date: PREPARED : AZEL MESHA J KHARBHIH CHECKED :  |  |  |  |  |  |
| TOP SYSTEM FOR PROPOSED LAITUMKHRAH<br>MARKET  Date: PREPARED :<br>16-05-2022 PREPARED :<br>AZEL MESHA J KHARBHIH<br>CHECKED :<br>M. MUSHTAQ KHAN APPROVED :  |  |  |  |  |  |
| TOP SYSTEM FOR PROPOSED LAITUMKHRAH<br>MARKET  Date: PREPARED : AZEL MESHA J KHARBHIH CHECKED : Scale Sheet Size M. MUBIC/VED :   |  |  |  |  |  |