2 Storey 4 Classrooms

Revised (Oct 2018)
Government of Nepal
National Reconstruction Authority
Central Level Project Implementation Unit (EDU)
Gyaneshwor, Kathmandu

PROJECT : 2 Storey 4 Classrooms
Revised (Oct 2018)

TITLE : DOOR & WINDOW DETAILS

Date : Scale : 1:25
Design by :
Checked by :
Approved by :

DOORS & WINDOWS SCHEDULE:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>SYMBOL</th>
<th>SIZES</th>
<th>G.F.</th>
<th>F.F.</th>
<th>S.F.</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>W</td>
<td>1200 x 1350</td>
<td>6</td>
<td>6</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>2.</td>
<td>W1</td>
<td>1500 x 1350</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>8</td>
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<tr>
<td>3.</td>
<td>W2</td>
<td>1500 x 1100</td>
<td>1</td>
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<tr>
<td>4.</td>
<td>D</td>
<td>1100 x 2100</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>4</td>
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<tr>
<td>5.</td>
<td>D1</td>
<td>800 x 2100</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td></td>
<td>15</td>
<td>15</td>
<td>1</td>
<td>31</td>
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</table>
As per Site Condition, Df (Min. 1500)

**FOOTING SECTION WITH PLINTH BEAM**

For Hard and Medium soil

**FOOTING PLAN**

**FOOTING SECTION WITH PLINTH BEAM AND FOUNDATION BEAM**

**PLINTH AND FOUNDATION TIE BEAM**

See Table

Note: Ld = 60 Ø

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**PAD FOUNDATION SIZE FOR WEAK SOIL**
(Safe bearing capacity = 50 KN/m²)

<table>
<thead>
<tr>
<th>Column Type</th>
<th>Foundation</th>
<th>Max</th>
<th>Reinforcement and</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Plan (XxY) (mm)</td>
<td>Thickness</td>
<td>Spacing</td>
</tr>
<tr>
<td>Corner (F1)</td>
<td>2000X2000</td>
<td>300</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Face (F2)</td>
<td>2800X2800</td>
<td>400</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Inner (F3)</td>
<td>3300X3300</td>
<td>475</td>
<td>12 dia@150mm c/c</td>
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</table>

**PAD FOUNDATION SIZE FOR SOFT SOIL**
(Safe bearing capacity = 100 KN/m²)

<table>
<thead>
<tr>
<th>Column Type</th>
<th>Foundation</th>
<th>Max</th>
<th>Reinforcement and</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Plan (XxY) (mm)</td>
<td>Thickness</td>
<td>Spacing</td>
</tr>
<tr>
<td>Corner (F1)</td>
<td>1500X1500</td>
<td>275</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Face (F2)</td>
<td>2000X2000</td>
<td>375</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Inner (F3)</td>
<td>2300X2300</td>
<td>450</td>
<td>12 dia@150mm c/c</td>
</tr>
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</table>

**PAD FOUNDATION SIZE FOR MEDIUM SOIL**
(Safe bearing capacity = 150 KN/m²)

<table>
<thead>
<tr>
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<td>Plan (XxY) (mm)</td>
<td>Thickness</td>
<td>Spacing</td>
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<tr>
<td>Corner (F1)</td>
<td>1200X1200</td>
<td>250</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Face (F2)</td>
<td>1600X1600</td>
<td>375</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Inner (F3)</td>
<td>1800X1800</td>
<td>425</td>
<td>12 dia@150mm c/c</td>
</tr>
</tbody>
</table>

**PAD FOUNDATION SIZE FOR HARD SOIL**
(Safe bearing capacity = 200 KN/m²)

<table>
<thead>
<tr>
<th>Column Type</th>
<th>Foundation</th>
<th>Max</th>
<th>Reinforcement and</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plan (XxY) (mm)</td>
<td>Thickness</td>
<td>Spacing</td>
</tr>
<tr>
<td>Corner (F1)</td>
<td>1000X1000</td>
<td>250</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Face (F2)</td>
<td>1400X1400</td>
<td>350</td>
<td>12 dia@150mm c/c</td>
</tr>
<tr>
<td>Inner (F3)</td>
<td>1700X1700</td>
<td>425</td>
<td>12 dia@150mm c/c</td>
</tr>
</tbody>
</table>

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**PROJECT:** 2 Storey 4 Classrooms
**TITLE:** PLINTH WALL FOR WEAK/ SOFT SOIL

Government of Nepal
National Reconstruction Authority
Central Level Project Implementation Unit (EDU)
Gyaneshwor, Kathmandu

**Date:** Revised (Oct 2018)
**Scale:**
**Sheet No:** 9

**Designed by:**
**Checked by:**
**Approved by:**
ELEVATION SHOWING FOOTING, LOWER TIE BEAM, UPPER TIE BEAM AND PLINTH WALL

SECTION AT X-X

BRICK MASONRY TOE WALL

STONE MASONRY TOE WALL
## COLUMN SIZE AND REINFORCEMENT

<table>
<thead>
<tr>
<th>Floor</th>
<th>Column C1</th>
<th>Column C2</th>
<th>Stirrups</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Floor</td>
<td>350</td>
<td>350</td>
<td>8Ø @ 100mm c/c</td>
<td>M 20</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>350</td>
<td>8Ø @ 150mm c/c</td>
<td></td>
</tr>
<tr>
<td>First Floor</td>
<td>350</td>
<td>350</td>
<td>8Ø @ 100mm c/c</td>
<td>M 20</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>350</td>
<td>8Ø @ 150mm c/c</td>
<td></td>
</tr>
<tr>
<td>Ground Floor</td>
<td>350</td>
<td>350</td>
<td>8Ø @ 100mm c/c</td>
<td>M 20</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>350</td>
<td>8Ø @ 150mm c/c</td>
<td></td>
</tr>
</tbody>
</table>

### L-SECTION OF COLUMN WITH LAPPING

1. **Lo**
2. **Stirrups 10mm @ 100mm c/c**
3. **Zone for splicing of column bars**
4. **hc**
5. **602**
6. **Lh**
7. **hc4**
8. **Lo**

---

**COLUMN DETAILS**

- **Date:**
- **Scale:** 1:50
- **Designed by:**
- **Checked by:**
- **Approved by:**

**PROJECT:** 2 Storey 4 Classrooms

**REVISED (Oct 2018)**
FOUNDATION TIE BEAM PLAN

(Beam size 230x230)

PLINTH BEAM PLAN

SECONDARY BEAM

Please refer Sheet no. 20 for detail (Wall with Door)

BEAM PLAN (First Floor)

BEAM PLAN (Second Floor)
L- SECTION OF SLAB ALONG X-X DIRECTION

L- SECTION OF SLAB ALONG Y-Y DIRECTION
SLAB PLAN FOR STAIRCASE ROOF

SLAB THICKNESS = 125 mm
Scale: 1:50

L-SECTION OF SLAB ALONG X-X DIRECTION

L-SECTION OF SLAB ALONG Y-Y DIRECTION
STAIRCASE PLAN
(Scale - 1:50)

BEAM LAYOUT PLAN
(Staircase Roof Level)
(Scale - 1:100)

REINFORCEMENT DETAILS OF STAIRCASE FLIGHT-1
(Scale - 1:25)

REINFORCEMENT DETAILS OF STAIRCASE FLIGHT-2
(Scale - 1:25)

LANDING BEAM CONNECTION DETAIL

50 MM GAP FILLED WITH THERMOCOL PACKING

COLUMN

LANDING BEAM

DOWEL BAR 4NOS. 16Ø

UP
Thickness Of Waist Tray = 150mm
Tread = 300 mm
Riser = 150mm

Title:
Scale:
Designed by:
Date:
Checked by:
Approved by:

PROJECT:
2 Storey 4 Classrooms
Revised (Oct 2018)

TITLE:
STAIRCASE DETAILS

Date:
Scale:
Sheet No:

Government of Nepal
National Reconstruction Authority
Central Level Project Implementation Unit (EDU)
Gyaneshwor, Kathmandu

Regulatory Authority
Central Level Project Implementation Unit (EDU)
Gyaneshwor, Kathmandu
GROUND FLOOR LIGHT LAYOUT PLAN

1. PVC PIPE OF 20 mm dia 2MM THICK FOR CONCEALED WIRING SHOULD BE USED

2. LIGHT/FAN/5A/16A SOCKET POINT 2X2.5 SQ. MM+1X 1.5 SQ MM(LNE)

---

**LEGEND**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Particulars</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24 W LED Panel Light</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Floor MCB distribution board(DB)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>One way modular switch(multi-gang)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Two way modular switch</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6/16A 5 Pin switch socket outlet</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ceiling Fan</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9W Square type LED Light</td>
<td></td>
</tr>
</tbody>
</table>

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**Ground Floor Plan (Light Layout)**

**Government of Nepal**
National Reconstruction Authority
Central Level Project Implementation Unit (EDU)
Gyaneshwor, Kathmandu
1. PVC PIPE OF 20 mm dia 2MM THICK FOR CONCEALED WIRING SHOULD BE USED

2. LIGHT/FAN/5A/16A SOCKET POINT 2X2.5 SQ. MM+1X 1.5 SQ MM (LNE)

LEGEND

1. 9W LED Panel Light
2. Floor MCB distribution board (DB)
3. One way modular switch (Multi-gang)
4. Two way modular switch
5. 5 pin switch socket outlet
6. Ceiling Fan
7. 9W Square type LED Light

GROUND FLOOR POWER LAYOUT PLAN
FIRST FLOOR LIGHT LAYOUT PLAN

1. PVC PIPE OF 20 mm dia 2MM THICK FOR CONCEALED WIRING SHOULD BE USED
2. LIGHT/FAN/5A/16A SOCKET POINT 2X2.5 SQ. MM+1X 1.5 SQ MM(LNE)

LEGEND

1. 24 W LED Panel Light
2. Floor MCB distribution board(DB)
3. One way modular switch(Multi-gang)
4. Two way modular switch
5. 16A 5 Pin switch socket outlet
6. Ceiling Fan
7. 9W Square type LED Light

PROJECT:
2 Storey 4 Classrooms
Revised (Oct 2018)

TITLE:
FIRST FLOOR PLAN
(POWER LAYOUT)
1. PVC PIPE OF 20 mm dia 2MM THICK FOR CONCEALED WIRING SHOULD BE USED
2. LIGHT/FAN/5A/16A SOCKET POINT 2x2.5 SQ. MM+1X 1.5 SQ MM(LNE)

FIRST FLOOR POWER POINT LAYOUT PLAN

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Particulars</th>
<th>Symbol</th>
<th>Legend</th>
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<tbody>
<tr>
<td>1</td>
<td>24 W LED Panel Light</td>
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<td></td>
</tr>
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<td>Floor MCB distribution board(DB)</td>
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</tr>
<tr>
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<td>One way modular switch(Multi-gang)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Two way modular switch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6/16A 5 Pin switch socket outlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ceiling Fan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9W Square type LED Light</td>
<td></td>
<td></td>
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</tbody>
</table>