Volume 3: Tender Drawings
1. The figures are concrete compressive strength readings N/mm².
2. Column readings are written on the beams.
3. Beam readings are written on the beams.
4. Slab readings are written on the open spaces.
5. Circled readings are those that fall below the specified concrete compressive strength of 25N/mm², these imply problem area.
6. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

**LEGEND:**
- Existing reinforced concrete wall
- Existing beams
- Existing staircase to be demolished
- Existing column
- Existing column to be demolished
- Existing column pad
- Existing Slab thickness 150mm
1. The figures are concrete compressive strength readings N/mm².
2. Column readings are written on the beams.
3. Beam readings are written on the beams.
4. Slab readings are written on the open spaces.
5. Circed readings are those that fall below the specified concrete compressive strength of 25N/mm², these imply problem area.
6. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

LEGEND:
- Existing beams
- Existing beams to be demolished
- Existing slab to be demolished
- Existing staircase to be demolished
- Existing column
- Existing column to be demolished
- Existing Slab thickness 150mm
1. The figures are concrete compressive strength readings N/mm².
2. Column readings are written on the beams.
3. Beam readings are written on the beams.
4. Slab readings are written on the open spaces.
5. Circled readings are those that fall below the specified concrete compressive strength of 25N/mm², these imply problem area.
6. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

**LEGEND:**

- Existing beams
- Existing beams to be demolished
- Existing slab to be demolished
- Existing staircase to be demolished
- Existing column
- Existing column to be demolished
- Existing Slab thickness 150mm
1. The figures are concrete compressive strength readings N/mm².
2. Column readings are written on the beams.
3. Beam readings are written on the beams.
4. Slab readings are written on the open spaces.
5. Circed readings are those that fall below the specified concrete compressive strength of 25N/mm², these imply problem area.
6. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

**LEGEND:**
- Existing beams
- Existing beams to be demolished
- Existing slab to be demolished
- Existing Slab thickness 150mm

**NOTES:**
- The figures are concrete compressive strength readings N/mm².
- Column readings are written on the beams.
- Beam readings are written on the beams.
- Slab readings are written on the open spaces.
- Circed readings are those that fall below the specified concrete compressive strength of 25N/mm², these imply problem area.
- The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.
NOTES

1. All dimension are millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be: 75mm Foundation
   50mm Columns
   40mm Beams And Slabs
4. All Foundation are to be cast in one pour directly
   on rock or any loose fill to be excavated to
   rock and backfilled with clean concrete as
   specified by consultant.
5. The Contractor is responsible for
   verifying site conditions including all
   dimensions, prior to commencing
   construction.
6. The Contractor is responsible for
   verifying the quality of steel required for
   construction.
7. All Beam shown with section shall
   always have bottom steel turned up
   10x diameter of the steel.
8. The Drawing is to be read in
   conjunction with specifications and
   contract documents where applicable and as
   directed by Engineer.
9. The contractor is responsible for verification of
   the structural design before proceeding with
   construction of structural elements.

Legend

Existing Beam Maintained
New Beam
Existing Retaining Wall Maintained
New Retaining Wall
Existing Column Footings
New Column Footings and trenches
Existing Columns Maintained
Existing columns Modified
New Columns
Existing Slab Maintained
New Slab

Proposed Ground Floor Structural Layout

Rehabilitation / Completion and Outfitting Work for
Office Building at Regent Road, Hill Station, Freetown
For Sierra Leone Field Office of the African
Development Bank (ADB)
NOTES

1. All dimension are millimeters unless otherwise stated.
2. Concrete shall be C35/20
3. Minimum cover Reinforcement shall be: 75mm Foundation.
   50mm Columns
   40mm Beams and Slabs
4. All Foundation are to be poured directly on rock or base fill to be excavated to rock and backfilled with beam mix concrete as specified by Consultant.
5. The Contractor is responsible for verifying the design, calculations, dimensions and construction prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always be built up from single or double diameter of the steel.
8. The Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The contractor is responsible for verification of this structural design before proceeding with construction of structural elements.

Legend

- Existing Beam Maintained
- New Beam
- Existing Retaining Wall Maintained
- New Retaining Wall
- Existing Column Footings
- New Column Footings and trenches
- Existing Columns Maintained
- New Columns
- Existing Slab Modified
- New Slab
PROJECT TITLE: Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)

DRAWING TITLE: Proposed Column Details

NOTES

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35/20.
3. Minimum cover reinforcement shall be 75mm Foundation, 50mm Columns, 40mm Beams And Stabs.
4. All Foundation and beams are to be poured directly on rock, any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultation.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All beams shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract documents where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

Scale: 1:40

Proposed Column Details

Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown
For Sierra Leone Field Office of the African Development Bank (ADB)

Realini Bader Associates Limited

72 Wellington Street, Freetown
August, 2014

Printed on: August, 2014

Sheet Size: A3

Drawing No: SL/ADB/ST-09

Checked by: PM

Printed on: August, 2014
NOTES

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P 70.
3. Minimum cover Reinforcement shall be 75mm Foundation,
   50mm Columns,
   40mm Beams And Stabs.
4. All Foundation are to be tied directly to rock and back filled
   with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions
   including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel
   required for construction.
7. All Beams shown with section shall always have bottom steel
   turned up 10% diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and
   contract documents where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design
   before proceeding with construction of structural elements.

Proposed Beam/Slab Details

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Type A

Y12-150P T1
Y16-200P B1
Y16-200P B2

Type B

Y12-150P T2

Realini Bader Associates Limited
72 Wellington Street, Freetown

August, 2016

Project Title: Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)
NOTES

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover reinforcement shall be 75mm for columns, 50mm for beams, and 40mm for slabs.
4. All foundation are to be built directly or rock any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All beam shown in section shall always have bottom steel turned up 10x diameter of the steel.
8. The drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The contractor is responsible for construction of structural elements.

Legend
- Roof Truss

Client:
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown for sierra leone field office of the African Development Bank (ADB)

Drawing Title:
Roof Truss Layout

Realini
Bader
Associates Limited
10 Wellington Street, Freetown

African Development
Bank

Date:
October, 2016

Tender:
Contract / Construction:

No.
Description
Date

SL/ADB/ST-11

Scale:
Printed on:
Oct, 2016
NOTES

1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be: 75mm Foundation;
   50mm Columns;
   40mm Beams And Slabs.
4. All Foundation are to be constructed in rock or on rock any loose fill to be excavated
   and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all
   dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up
   10x diameter of the steel.
8. The Drawing is to be read in conjunction with specifications and
   contract document where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

Roof Truss Details

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

Client:
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown for Sierra Leone Field Office of the African Development Bank (ADB)

Architects:
Realini Bader Associates Limited

Engineers:

Planners:

Drawn by: SL/ADB/ST-12
Printed on: Oct, 2016
NOTES

1. All dimension are millimeters unless otherwise stated.
2. Concrete shall be C35/20
3. Minimum cover Reinforcement shall be:
   - 75mm Foundation
   - 50mm Columns
   - 40mm Beams And Slabs
4. All Foundation are to be placed directly on rock. Any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultants.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.
NOTES

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover reinforcement shall be 75mm.
4. Slabs and beams shall be 500mm.
5. All columns shall be concrete cast in situ.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All beams shown with section shall always have bottom flange turned up 10x diameter of the steel.
8. This drawing is to be read in conjunction with specifications and contract documents where applicable.
9. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

Client:
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown for Sierra Leone Field Office of the African Development Bank (ADB)
Proposed R/C Details For Staircase No.1

1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be: 70mm Foundation, 50mm Columns, 40mm Beams And Slabs.
4. All Foundation are to be cast directly on rock any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beams shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This drawing is to be read in conjunction with specifications and contract documents where applicable and as directed by Engineer.
9. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.
NOTES

1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be 75mm Foundation, 50mm Columns, 40mm Beams and Slabs.
4. All Foundation are to be cast in situ on rock or any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions prior to commencing construction.
6. The Contractor is responsible for maintaining the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.
1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover reinforcement shall be: 75mm Foundation
   50mm Columns
   40mm Beams and Slabs.
4. All Foundation are to be directly on rock any loose fill to be excavated to rock and back filled with lean mix concrete as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. The Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

NOTES
NOTES:-

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P/20
3. Minimum cover Reinforcement shall be 75mm for Foundation
   50mm for Columns
4. All Foundations are to be poured directly on rock or any base fill to be excavated to rock and backfilled with lean mix concrete as specified by consultant.
5. The Contractor is responsible for varying site conditions including all dimensions prior to commencing construction.
6. The Contractor is responsible for varying the quality of steel required for construction.
7. All Beams shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The Contractor is responsible for the accuracy of the structural design before proceeding with construction of structural elements.

LEGEND:-

Columns

Floor Slab 150mm thick with 12mm rod meshed at 150mm spacing C-C
NOTES:-

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C15P/20.
3. Minimum cover reinforcement shall be: 75mm Foundation; 50mm Columns; 40mm Beams; and Stabs.
4. All Footings are to be cast directly on rock or any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying the site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract document where applicable.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

---

Project Title:
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)

Drawing Title:
Generator House Structural Details

Drawing Status:
Design:
Tender:
Contract / Construction:

No.

Description

Date

1.0

---

REALINI
BADER
ASSOCIATES LIMITED

72 Wellington Street, Freetown

SL/ADB/ST-20

---

Drawn by: BRB
Checked by: SDO

Sheet Size: A3

Scale: 1 : 30

Printed on: August, 2016

Realini
Bader
Associates Limited

Architects
Engineers
Planners

August, 2016
1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be 75mm Foundation and 50mm Columns.
4. All Foundation are to be bored directly into rock or loose fill to be excavated to rock and back filled with lean mix concrete as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All beam shown with section shall always have bottom steel turned up 0.6 diameter of the steel.
8. This drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

LEGEND:-

- Columns
- Beams
- Footing
- P/C Strips

NOTES:-

Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)

Water Tank Ground Floor Slab Details

NOTES:-
1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35P/30.
3. Minimum cover Reinforcement shall be: 75mm Foundation, 50mm Columns, 40mm Beams And Slabs.
4. All Foundation are to be bored directly on rock; any loose fill to be excavated to rock and backfilled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

LEGEND:-
- Columns
- Floor Slab 200mm thick with 16mm rod meshed at 150mm spacing C-C
NOTES:-
1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35/20.
3. Minimum cover Reinforcement shall be 70mm Foundation,
   50mm Columns,
   40mm Beams And Slabs
4. All Foundation are to bear directly on rock any loose fill to be excavated to
   rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all
   dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for
   construction.
7. All Beam shown with section shall always have bottom steel turned up
   10x diameter of the steel.
8. This Drawing is to be read in conjunction with Specifications and
   contract document where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with
   construction of structural elements.

LEGEND:-
- Columns
- Reinforcement

Project Title: Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)

Drawing Title: Water Tank Mezzanine Floor Suspended Slab Details

Drawn by: Realini Bader Associates Limited

Printed on: 72 Wellington Street, Freetown

Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)
NOTES:-

1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be: 75mm Foundation, 50mm Columns, 40mm Beams And Slabs.
4. All Foundation are to be laid directly on rock any loose till to be excavated to rock and back filled with lean mix concrete as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beams shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract documents where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

LEGEND:-

- Columns
- Reinforcement
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)

Water Tank Structural Details

NOTES:-

1. All dimension are millimeters unless otherwise stated.
2. Concrete shall be C35P/20
3. Minimum cover Reinforcement shall be: 75mm Foundation
4. 50mm Columns
5. 40mm Beams and Stairs
6. All Foundation are to be laid directly on rock, dry loose till to be excavated to rock and back filled with beam mix concrete or as specified by consultant.
7. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
8. The Contractor is responsible for verifying the quality of steel required for construction.
9. All Beam shown with section shall always have bottom steel turned up 1'0" diameter of the beam.
10. This Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
11. The contractor is responsible for verification of the structural design before proceeding with construction of structural elements.
Rehabilitation / Completion and Outfitting Work for Office Building at Regent Road, Hill Station, Freetown For Sierra Leone Field Office of the African Development Bank (ADB)

Drivers/Security/Waiting Area Lounge Foundation Structural Layout

NOTES:-
1. All dimension are millimeters unless otherwise stated.
2. Concrete shall be C35P/20
3. Minimum cover Reinforcement shall be: 75mm Foundation
   50mm Columns
   40mm Beams and Slabs
4. All Foundation are to bear directly on rock any loose fill to be excavated to
   rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all
   dimensions, prior to commencing
   construction.
6. The Contractor is responsible for
   verifying the quality of steel required for
   construction.
7. All Beam shown with section shall
   always have bottom steel turned up
   10x diameter of the steel.
8. The Drawing is to be read in
   conjunction with specifications and
   contract documents where applicable and as
   directed by Engineer.
9. The contractor is responsible for verification of
   the structural design before proceeding with
   construction of structural elements.

LEGEND:-
- Columns
- Beams
- Footing
- P/C Strips
NOTES:-

1. All dimensions are millimeters unless otherwise stipulated.
2. Concrete shall be C35P/20.
3. Minimum cover reinforcement shall be 75mm.
4. Foundation are to be direct on rock or any loose fill to be excavated to rock and backfilled with clean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions prior to commencing construction.
6. The Contractor is responsible for the quality of steel required for construction.
7. All Beams shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract documents where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.

LEGEND:-

Columns
Floor Slab 150mm thick with 12mm rod meshed at 150mm spacing C-C
NOTES:

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover reinforcement shall be 100mm Foundation
   50mm Columns
   40mm Beams And Slabs
4. All Foundation are to be foundations over rock any loose fill to be excavated
   to rock and back filled with lean mix concrete or as specified by consultant
5. The Contractor is responsible for verifying site conditions including all
   dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for
   construction.
7. All Beam shown with section shall always have bottom steel turned up
   10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and
   contract document where applicable and as directed by Engineer.
9. The contractor is responsible for verification of the structural design before
   proceeding with construction of structural elements.

COLUMN TYPE C6

SECTION K-K

BEAM TYPE F
NOTES:-

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35/20.
3. Minimum cover reinforcement shall be:
   - 75mm Foundation
   - 50mm Columns
   - 40mm Beams And Slabs
4. All Foundation areas to be laid directly on rock or gravel fill to be excavated to rock and backfilled with lean mix
   concrete or as specified by consultant.
5. The contractor is responsible for verifying site conditions including all
   dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for
   construction.
7. All Beams shown with section shall always have bottom steel turned up
   10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and
   contract documents where applicable and as directed by Engineer.
9. The contractor is responsible for verification of the structural design before proceeding
   with fabrication of structural elements.

LEGEND:-

- Columns
- Beams
- Footing
- P/C Strips
- Floor Slab 100mm thick with
  16mm rod meshed at 150mm
  spacing C-C

Rehabilitation / Completion and Outfitting Work for
Office Building at Regent Road, Hill Station, Freetown
For Sierra Leone Field Office of the African
Development Bank (ADB)

Not To Scale

Scale: A3

Printed on: August, 2016

Realini Bader Associates Limited
Architects
Engineers
Planners

August, 2016

Project Title:
Back Security Post
Foundation Structural
Layout, Ground Floor
Slab & Suspended Slab Details

No. Description Date

Drawn by: 
Checked by: 
Printed on:

Back Security Post

Dimensions:

2300
1550

100

Y16-200P B1

Y16-200P B2
NOTES:-
1. All dimensions are millimeters unless otherwise stated.
2. Concrete shall be C35P/20.
3. Minimum cover Reinforcement shall be: 70mm Foundation.
   50mm Columns
   40mm Beams And Slabs
4. All Foundation are to be poured directly on rock any loose fill to be excavated to rock and back filled with lean mix concrete or as specified by consultant.
5. The Contractor is responsible for verifying site conditions including all dimensions, prior to commencing construction.
6. The Contractor is responsible for verifying the quality of steel required for construction.
7. All Beam shown with section shall always have bottom steel turned up 10x diameter of the steel.
8. This Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
9. The Contractor is responsible for verification of the structural design before proceeding with construction with design of structural elements.

COLUMN TYPE C7

BEAM TYPE G

SECTION K-K
Concrete Plinth For Fire Hydrant Pump Layout

NOTES:-

1. All dimensions are in millimeters unless otherwise stated.
2. Concrete shall be C35/20.
3. Minimum cover reinforcement shall be 75mm.
4. Foundation and columns shall be 40mm.
5. Beams and slabs shall be 50mm.
6. Excavation shall be to rock and backfilled with lean mix concrete as specified by consultant.
7. The Contractor is responsible for verifying and setting the dimensions prior to commencing construction.
8. The Contractor is responsible for verifying the quality of steel required for construction.
9. All beams shown with section shall always have bottom steel turned up 10x diameter of the steel.
10. The Drawing is to be read in conjunction with specifications and contract document where applicable and as directed by Engineer.
11. The Contractor is responsible for verification of the structural design before proceeding with construction of structural elements.
### STAIRCASE No. 1

**BENDING DETAILS**

<table>
<thead>
<tr>
<th>BAR MARK</th>
<th>LOCATION</th>
<th>SYMBOL</th>
<th>Number</th>
<th>Length (m)</th>
<th>Symbol (m)</th>
<th>Total mass (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>BOTTOM</td>
<td>12</td>
<td>10</td>
<td>3</td>
<td>30</td>
<td>7.389</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>221.67</td>
<td>2000</td>
<td>0.230</td>
</tr>
<tr>
<td>02</td>
<td></td>
<td>12</td>
<td>14</td>
<td>2</td>
<td>28</td>
<td>2.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56.00</td>
<td>1200</td>
<td>0.266</td>
</tr>
<tr>
<td>03</td>
<td>TOP</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.450</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24.50</td>
<td>2000</td>
<td>0.024</td>
</tr>
<tr>
<td>04</td>
<td>TOP</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.450</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24.50</td>
<td>400</td>
<td>0.024</td>
</tr>
<tr>
<td>05</td>
<td>BOTTOM</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.600</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26.00</td>
<td>600</td>
<td>0.01</td>
</tr>
<tr>
<td>06</td>
<td>TOP</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.600</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26.00</td>
<td>600</td>
<td>0.01</td>
</tr>
<tr>
<td>07</td>
<td>TOP</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.600</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26.00</td>
<td>600</td>
<td>0.01</td>
</tr>
</tbody>
</table>

### STAIRCASE No. 2

**BENDING DETAILS**

<table>
<thead>
<tr>
<th>BAR MARK</th>
<th>LOCATION</th>
<th>SYMBOL</th>
<th>Number</th>
<th>Length (m)</th>
<th>Symbol (m)</th>
<th>Total mass (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>BOTTOM</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>28</td>
<td>4.783</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>133.924</td>
<td>3283</td>
<td>0.133</td>
</tr>
<tr>
<td>03</td>
<td>BOTTOM</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21.000</td>
<td>600</td>
<td>0.021</td>
</tr>
<tr>
<td>04</td>
<td>TOP</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>2.100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21.000</td>
<td>600</td>
<td>0.024</td>
</tr>
<tr>
<td>05</td>
<td>BOTTOM</td>
<td>12</td>
<td>44</td>
<td>1</td>
<td>10</td>
<td>2.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.000</td>
<td>125</td>
<td>0.020</td>
</tr>
<tr>
<td>06</td>
<td>BOTTOM</td>
<td>10</td>
<td>50</td>
<td>1</td>
<td>10</td>
<td>1.025</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.25</td>
<td>450</td>
<td>0.010</td>
</tr>
<tr>
<td>07</td>
<td>BOTTOM</td>
<td>12</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>8.030</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>80.300</td>
<td>3280</td>
<td>0.080</td>
</tr>
</tbody>
</table>
### Lift Roof Slab Details

<table>
<thead>
<tr>
<th>BAR MARK</th>
<th>LOCATION</th>
<th>DIAMETER (mm)</th>
<th>Number</th>
<th>Length (m)</th>
<th>Symbol (m)</th>
<th>Subtotal (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>TOP</td>
<td>12</td>
<td>80</td>
<td>1</td>
<td>80</td>
<td>3.4</td>
</tr>
<tr>
<td>02</td>
<td>TOP</td>
<td>12</td>
<td>80</td>
<td>1</td>
<td>80</td>
<td>3.4</td>
</tr>
<tr>
<td>03</td>
<td>BOTTOM</td>
<td>16</td>
<td>80</td>
<td>1</td>
<td>80</td>
<td>3.4</td>
</tr>
<tr>
<td>04</td>
<td>BOTTOM</td>
<td>16</td>
<td>80</td>
<td>1</td>
<td>80</td>
<td>3.4</td>
</tr>
</tbody>
</table>

### Lift Shaft Details

<table>
<thead>
<tr>
<th>BAR MARK</th>
<th>LOCATION</th>
<th>DIAMETER (mm)</th>
<th>Number</th>
<th>Length (m)</th>
<th>Symbol (m)</th>
<th>Subtotal (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>TOP</td>
<td>12</td>
<td>136</td>
<td>1</td>
<td>136</td>
<td>9</td>
</tr>
<tr>
<td>06</td>
<td>Back</td>
<td>12</td>
<td>136</td>
<td>1</td>
<td>136</td>
<td>9</td>
</tr>
<tr>
<td>07</td>
<td>Front</td>
<td>12</td>
<td>68</td>
<td>1</td>
<td>68</td>
<td>5.2</td>
</tr>
<tr>
<td>08</td>
<td>Back</td>
<td>12</td>
<td>136</td>
<td>1</td>
<td>136</td>
<td>5.13</td>
</tr>
</tbody>
</table>
### Water Tank Mezzanine Slab & Typical Slab Bending Details

<table>
<thead>
<tr>
<th>BAR MARK</th>
<th>LOCATION</th>
<th>DIAMETER (mm)</th>
<th>Number</th>
<th>Length (m)</th>
<th>Symbol (m)</th>
<th>Total Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP</td>
<td>12</td>
<td>27</td>
<td>1</td>
<td>27</td>
<td>71.50</td>
<td>0.071</td>
</tr>
<tr>
<td>BOTTOM</td>
<td>16</td>
<td>27</td>
<td>1</td>
<td>27</td>
<td>71.50</td>
<td>0.071</td>
</tr>
<tr>
<td>TOP</td>
<td>12</td>
<td>19</td>
<td>1</td>
<td>19</td>
<td>79.80</td>
<td>0.079</td>
</tr>
<tr>
<td>BOTTOM</td>
<td>16</td>
<td>19</td>
<td>1</td>
<td>19</td>
<td>79.80</td>
<td>0.079</td>
</tr>
<tr>
<td>TOP</td>
<td>12</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>37.70</td>
<td>0.037</td>
</tr>
<tr>
<td>BOTTOM</td>
<td>16</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>53.78</td>
<td>0.053</td>
</tr>
<tr>
<td>TOP</td>
<td>12</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>26.98</td>
<td>0.027</td>
</tr>
<tr>
<td>BOTTOM</td>
<td>16</td>
<td>18</td>
<td>1</td>
<td>18</td>
<td>37.35</td>
<td>0.037</td>
</tr>
</tbody>
</table>

### Roof Slab & Parapet Water Tank Bending Details

<table>
<thead>
<tr>
<th>BAR MARK</th>
<th>LOCATION</th>
<th>DIAMETER (mm)</th>
<th>Number</th>
<th>Length (m)</th>
<th>Symbol (m)</th>
<th>Total Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 TOP</td>
<td>12</td>
<td>27</td>
<td>1</td>
<td>27</td>
<td>151.20</td>
<td>0.150</td>
</tr>
<tr>
<td>02 BOTTOM</td>
<td>16</td>
<td>35</td>
<td>1</td>
<td>35</td>
<td>147.00</td>
<td>0.140</td>
</tr>
<tr>
<td>01 TOP</td>
<td>16</td>
<td>35</td>
<td>1</td>
<td>35</td>
<td>147.00</td>
<td>0.140</td>
</tr>
<tr>
<td>02 BOTTOM</td>
<td>16</td>
<td>35</td>
<td>1</td>
<td>35</td>
<td>2000</td>
<td>0.07</td>
</tr>
</tbody>
</table>

---

**NOTES:**

- Water Tank Mezzanine Floor Slab
- Roof Slab & Parapet Water Tank