



**LEGEND**

--- 80 MM PVC WASTE PIPE  
--- 110 MM PVC WASTE PIPE  
--- 110 MM PVC SOIL PIPE  
--- 50 MM PVC SOIL PIPE

FT - FLOOR TRAP  
IC - INSPECTION CHAMBER

**Note:**

- All internal Sewerage pipes shall be 110mm dia heavy duty PVC pipes & external 160mm dia HDPE pipe, 4kg/sqcm pressure.
- All waste water pipes shall be 90MM dia PVC heavy duty pipes.
- All joints shall be done with standard PVC fittings with application of PVC solutions.
- All pipe work and fittings shall be tested after installation.
- The size of manholes shall be 600x600 upto to the depth of 1m and 900x900 for depth more than 1m.
- All manholes shall be RCC round with smooth finish inside fitted with C1 manhole cover and frame medium duty.
- The pipe gradient shall be 1 in 50 minimum.



ROYAL GOVERNMENT OF BHUTAN  
DEPARTMENT OF AIR TRANSPORT

NOTE:

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- ALL RELATIVE LEVELS ARE IN METERS UNLESS SPECIFIED OTHERWISE
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- MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING

Legend

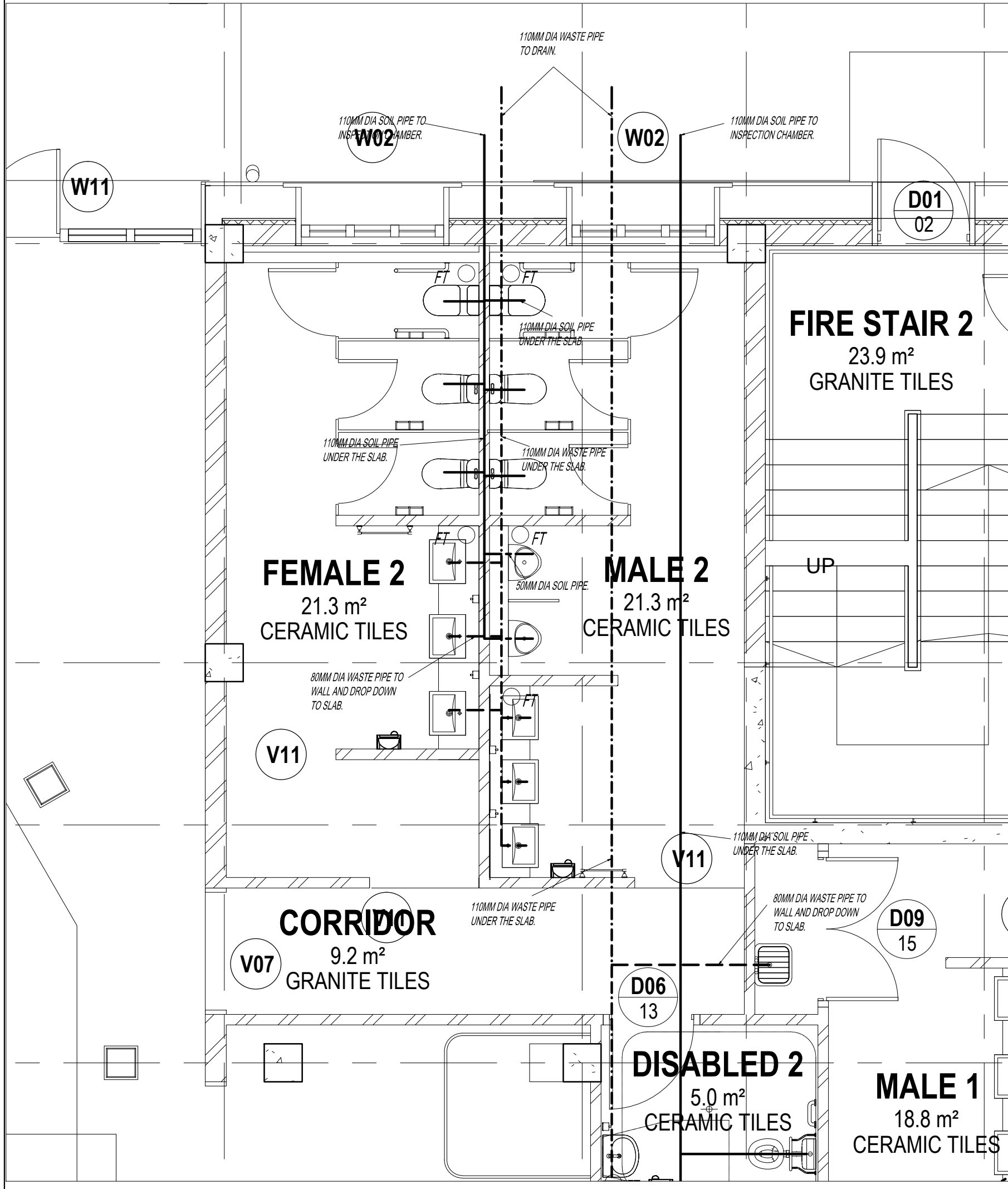
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| Client                        | Ministry of Information and Communications<br>Department of Air Transport                    |
| Aviation Planners & Engineers | Leading Edge Aviation Planning Professionals   |
| Architect                     | Tullamore Group  |
| Civil Engineering Consultant  | Gyaltshen Consultancy  |
| Project Title                 | BHUTAN DOMESTIC AIRPORT<br>DESIGN AND SUPERVISION<br>BUMTHANG AIRPORT<br>PASSENGER TERMINAL. |

| Drawing Title   |  |
|---|--|
| GROUND FLOOR<br>SEWER LAYOUT<br>MEDICAL ROOM, CAFE AND<br>CLEANER STORE |  |

|                    |                    |
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| Scale              | 1:50 @ A3          |
| Date               | JAN 2017           |
| Drawn By           | TSHEWANG GYELTSHEN |
| Design By          | DINESH             |
| Drawing Number     | 12246 SW 03        |
| LEAPP Project Code | 12246              |

| Rev |
|-----|
| R0  |



**LEGEND**

--- 80 MM PVC WASTE PIPE  
--- 110 MM PVC WASTE PIPE  
--- 110 MM PVC SOIL PIPE  
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IC - INSPECTION CHAMBER

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DEPARTMENT OF AIR TRANSPORT

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Client  
Ministry of Information and Communications  
Department of Air Transport

Aviation Planners & Engineers  
Leading Edge Aviation Planning Professionals

Architect  
Tullamore Group

Civil Engineering Consultant  
Gyaltshen Consultancy

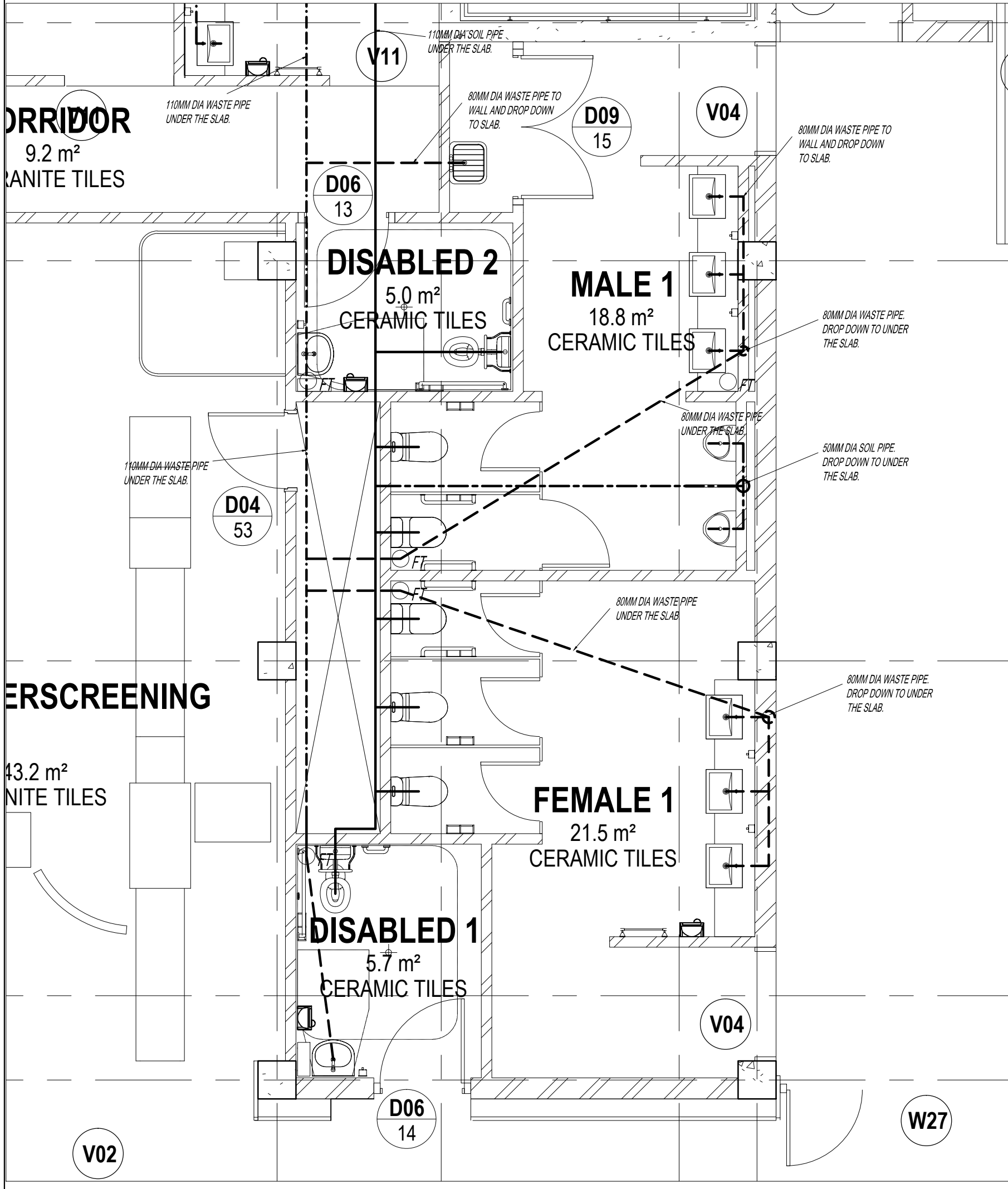
Project Title

**BHUTAN DOMESTIC AIRPORT  
DESIGN AND SUPERVISION  
BUMTHANG AIRPORT  
PASSENGER TERMINAL.**

Drawing Title

**GROUND FLOOR  
SEWER LAYOUT  
DEPARTURE LOUNGE**

|                    |                    |     |
|--------------------|--------------------|-----|
| Scale              | 1:50 @ A3          | Rev |
| Date               | JAN 2017           | R0  |
| Drawn By           | TSHEWANG GYELTSHEN |     |
| Design By          | DINESH             |     |
| Drawing Number     | 12246 SW 04        |     |
| LEAPP Project Code | 12246              |     |





**LEGEND**

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- 110 MM PVC WASTE PIPE
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IC - INSPECTION CHAMBER

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Client  
Ministry of Information and Communications  
Department of Air Transport

Aviation Planners & Engineers  
Leading Edge Aviation Planning Professionals

Architect  
Tullamore Group

Civil Engineering Consultant  
Gyaltshen Consultancy

Project Title

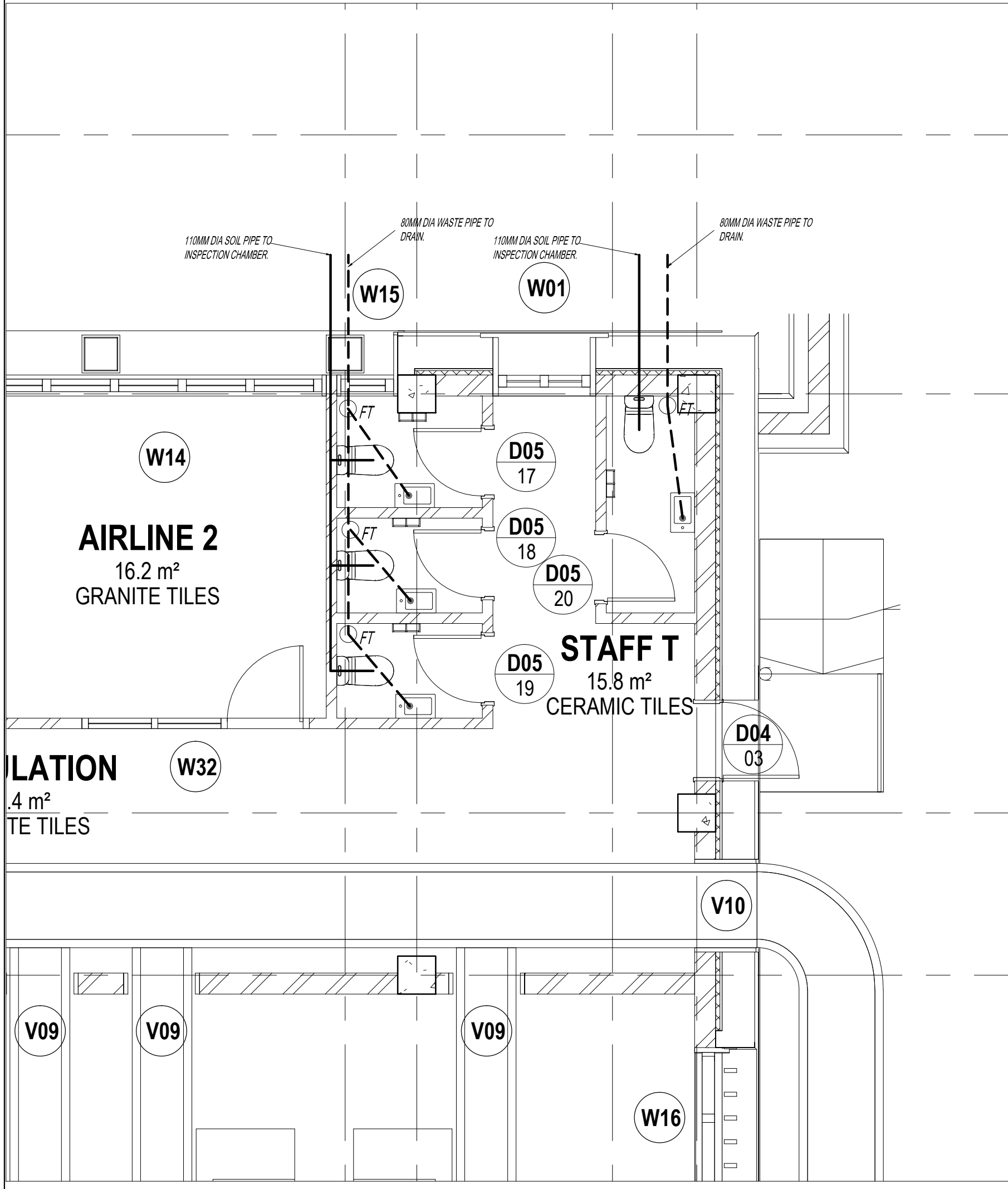
**BHUTAN DOMESTIC AIRPORT  
DESIGN AND SUPERVISION  
BUMTHANG AIRPORT  
PASSENGER TERMINAL.**

Drawing Title

**GROUND FLOOR  
SEWER LAYOUT  
CHECK IN TOILET**

| Scale              | 1:50 @ A3          |
|--------------------|--------------------|
| Date               | JAN 2017           |
| Drawn By           | TSHEWANG GYELTSHEN |
| Design By          | DINESH             |
| Drawing Number     | 12246 SW 05        |
| LEAPP Project Code | 12246              |

Rev  
R0



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Tullamore Group

Civil Engineering Consultant  
Gyaltshen Consultancy

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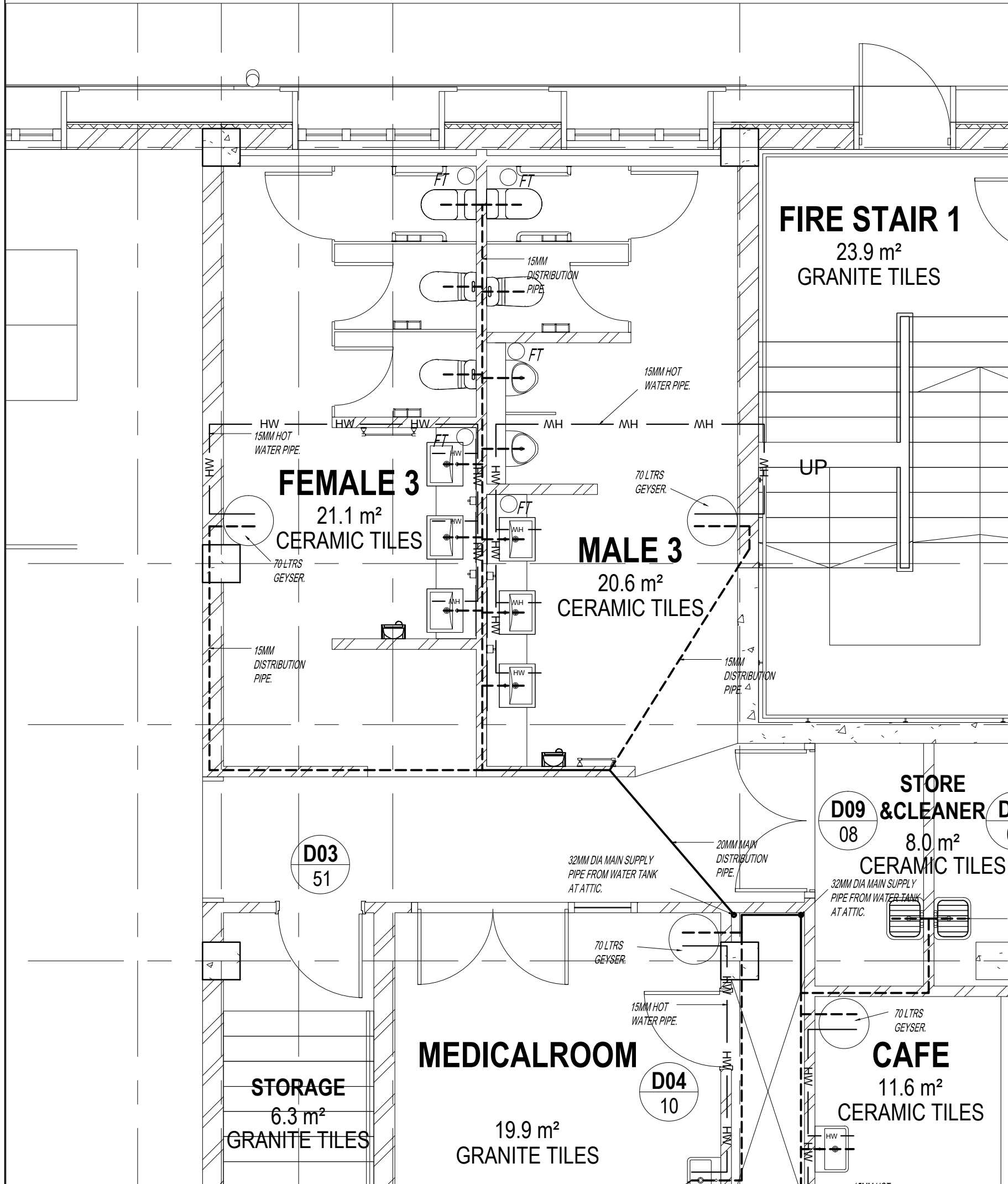
**BHUTAN DOMESTIC AIRPORT  
DESIGN AND SUPERVISION  
BUMTHANG AIRPORT  
PASSENGER TERMINAL.**

Drawing Title

**GROUND FLOOR  
SEWER LAYOUT  
STAFF TOILET**

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| Scale              | 1:50 @ A3          | Rev |
| Date               | JAN 2017           | R0  |
| Drawn By           | TSHEWANG GYELTSHEN |     |
| Design By          | DINESH             |     |
| Drawing Number     | 12246 SW 06        |     |
| LEAPP Project Code | 12246              |     |







**LEGEND**

- Main Supply Pipe from Water Tank (32mm dia)
- Main Distribution Pipe (20mm dia)
- Distribution Pipe (15mm dia)
- Hot Water Pipe (15mm dia)

**Notes for plumbing:**

- Pipes shall be GI, medium duty.
- Provide separate connections for GF & FF
- All inlets shall be controlled with gate valve as shown in site plan
- Pressure testing shall be done before concealing the pipes



ROYAL GOVERNMENT OF BHUTAN  
DEPARTMENT OF AIR TRANSPORT

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Client  
Ministry of Information and Communications  
Department of Air Transport

Aviation Planners & Engineers  
Leading Edge Aviation Planning Professionals

Architect  
Tullamore Group

Civil Engineering Consultant  
Gyaltshen Consultancy

Project Title

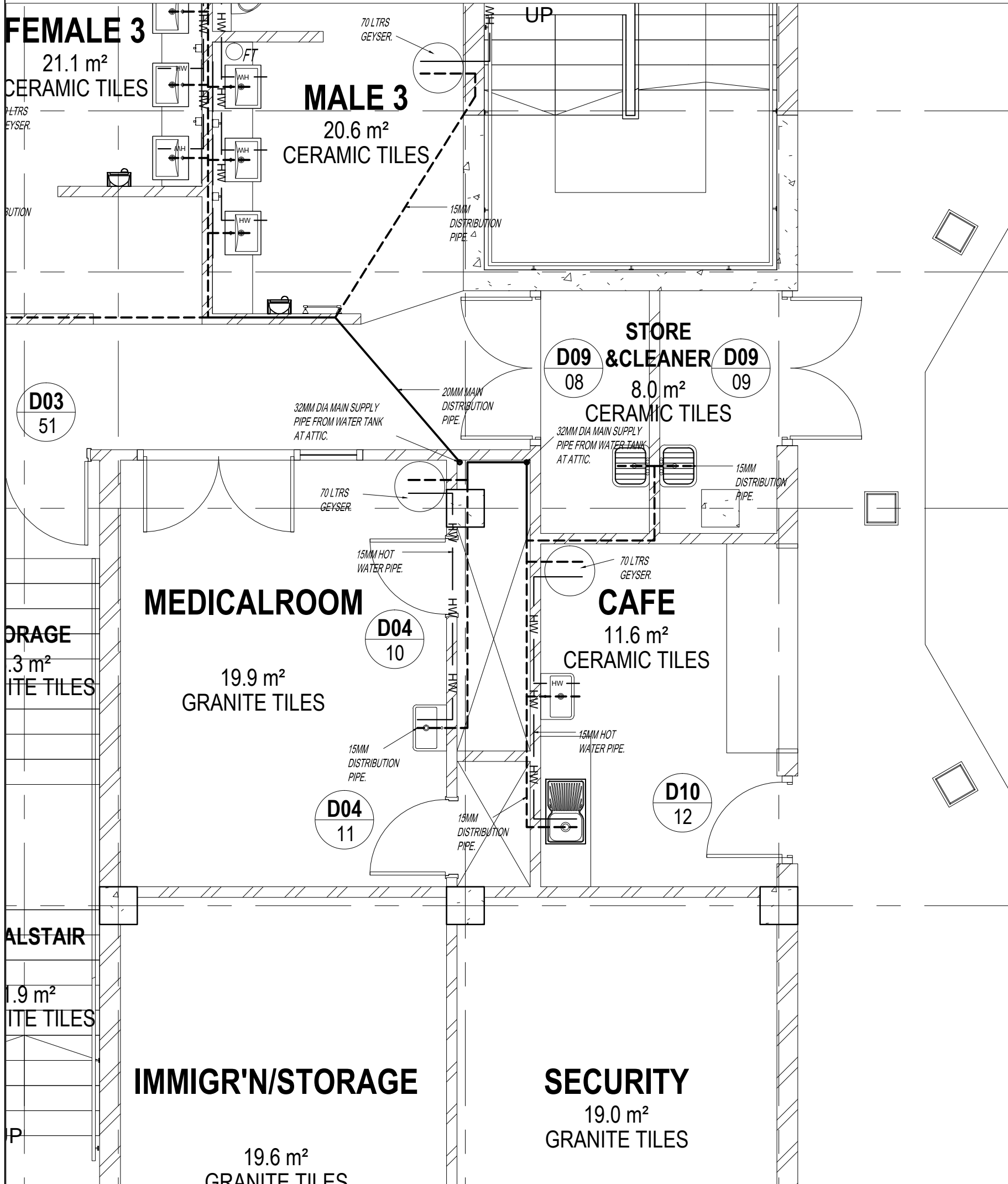
**BHUTAN DOMESTIC AIRPORT  
DESIGN AND SUPERVISION  
BUMTHANG AIRPORT  
PASSENGER TERMINAL.**

Drawing Title

**GROUND FLOOR  
PLUMBING LAYOUT  
ARRIVAL TOILET**

| Scale              | 1:50 @ A3          |
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| Date               | JAN 2017           |
| Drawn By           | TSHEWANG GYELTSHEN |
| Design By          | DINESH             |
| Drawing Number     | 12246 PL 01        |
| LEAPP Project Code | 12246              |

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**LEGEND**

- Main Supply Pipe from Water Tank (32mm dia)
- Main Distribution Pipe (20mm dia)
- Distribution Pipe (15mm dia)
- HW Hot Water Pipe (15mm dia)

Notes for plumbing:  
1. Pipes shall be GI, medium duty.  
3. Provide separate connections for GF & FF  
4. All inlets shall be controlled with gate valve as shown in site plan  
5. Pressure testing shall be done before concealing the pipes



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DEPARTMENT OF AIR TRANSPORT

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Ministry of Information and Communications  
Department of Air Transport

Aviation Planners & Engineers  
Leading Edge Aviation Planning Professionals

Architect  
Tullamore Group

Civil Engineering Consultant  
Gyaltshen Consultancy

Project Title

BHUTAN DOMESTIC AIRPORT  
DESIGN AND SUPERVISION  
BUMTHANG AIRPORT  
PASSENGER TERMINAL.

Drawing Title

GROUND FLOOR  
PLUMBING LAYOUT  
MEDICAL ROOM, CAFE AND  
CLEANER STORE

Scale 1:50 @ A3

Date JAN 2017

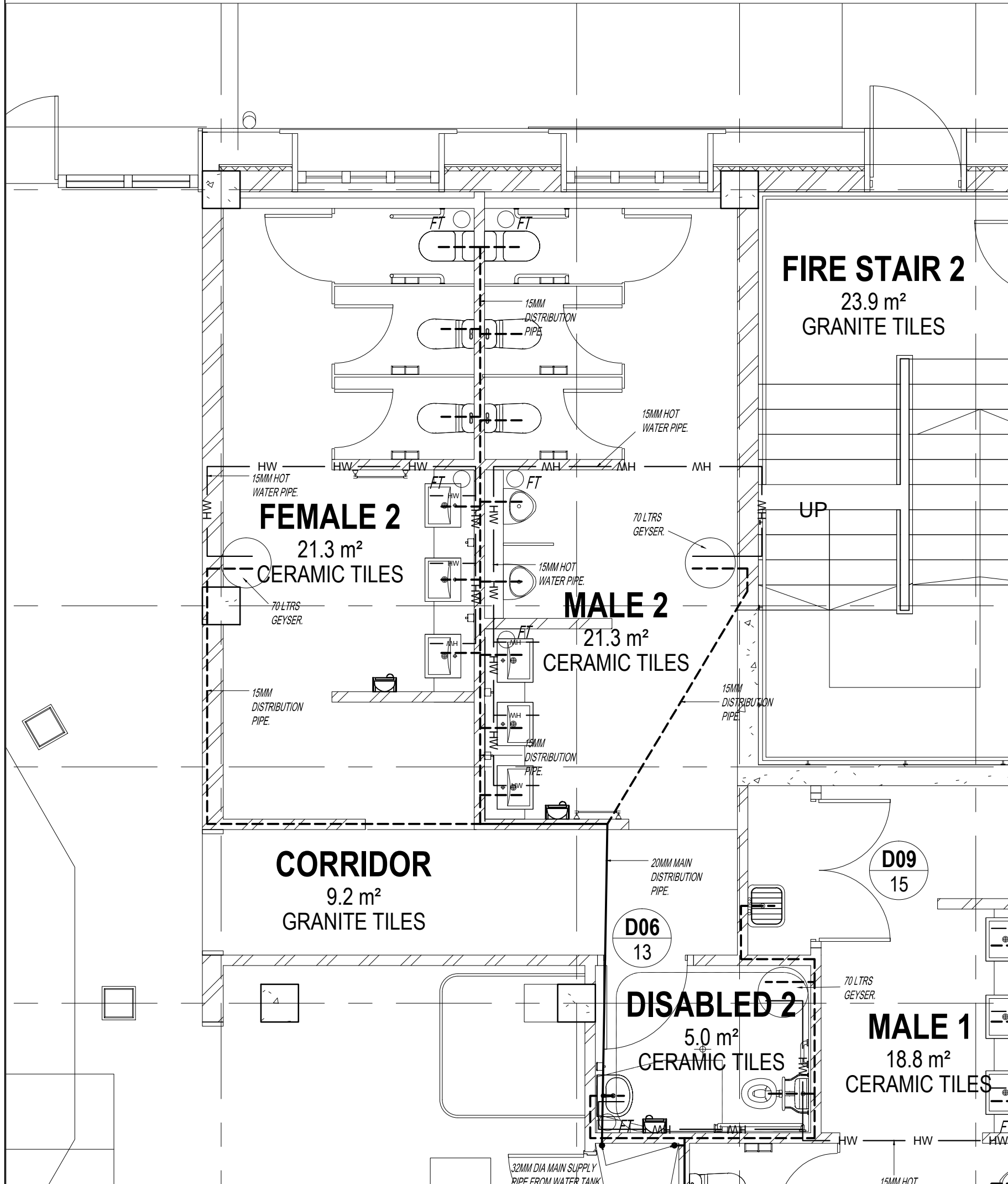
Drawn By TSHEWANG GYELTSHEN

Design By DINESH

Drawing Number  
12246 PL 02

Rev  
R0

LEAPP Project Code  
12246



**LEGEND**

- Main Supply Pipe from Water Tank (32mm dia)
- Main Distribution Pipe (20mm dia)
- Distribution Pipe (15mm dia)
- Hot Water Pipe (15mm dia)

**Notes for plumbing:**

- Pipes shall be GI, medium duty.
- Provide separate connections for GF & FF
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- Pressure testing shall be done before concealing the pipes



ROYAL GOVERNMENT OF BHUTAN  
DEPARTMENT OF AIR TRANSPORT

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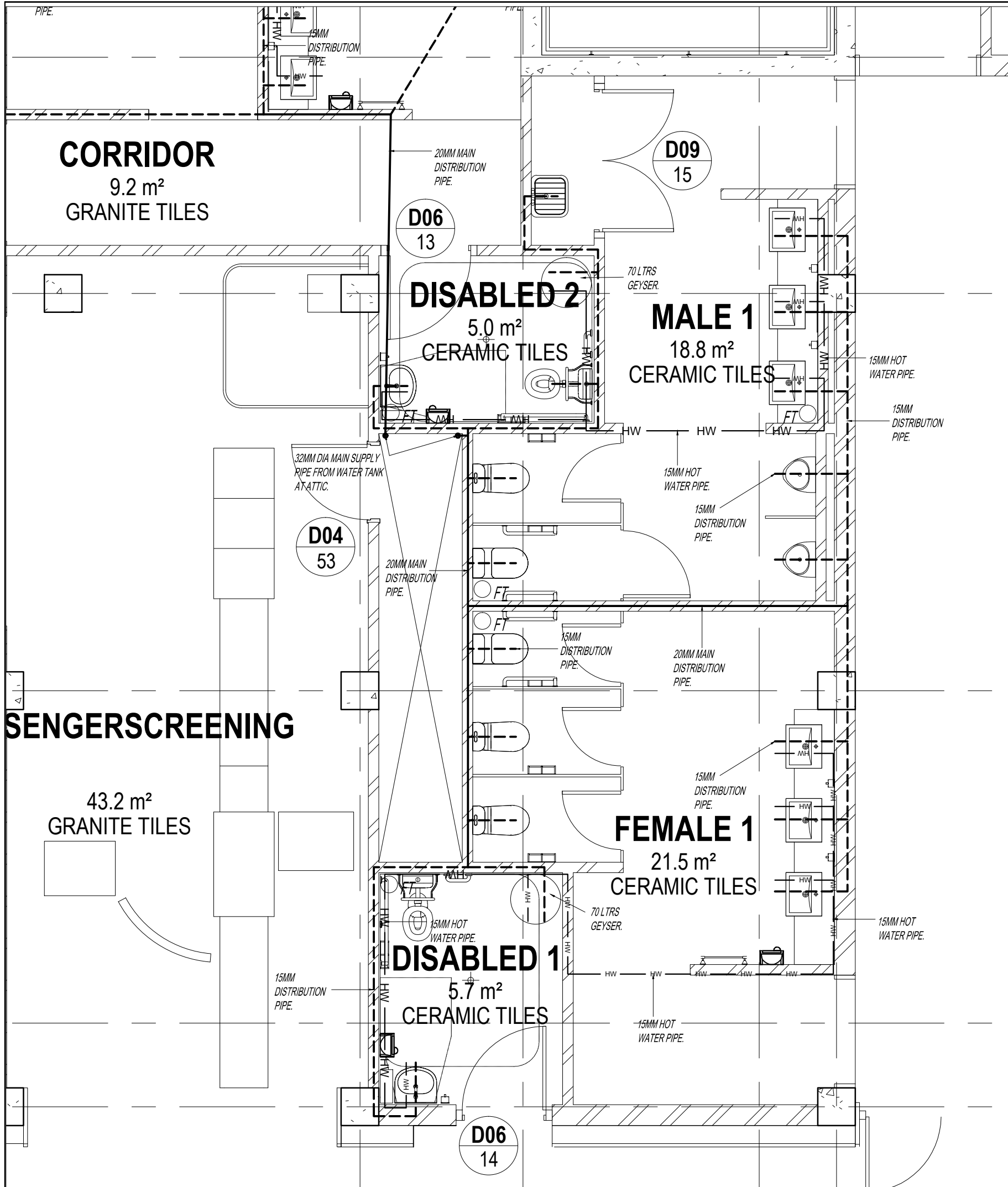
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| Client                        | Ministry of Information and Communications<br>Department of Air Transport                    |
| Aviation Planners & Engineers | Leading Edge Aviation Planning Professionals   |
| Architect                     | Tullamore Group  |
| Civil Engineering Consultant  | Gyaltshen Consultancy  |
| Project Title                 | BHUTAN DOMESTIC AIRPORT<br>DESIGN AND SUPERVISION<br>BUMTHANG AIRPORT<br>PASSENGER TERMINAL. |

|                    |   |
|--------------------|---|
| Drawing Title      | GROUND FLOOR<br>PLUMBING LAYOUT<br>DEPARTURE LOUNGE |
| Scale              | 1:50 @ A3   |
| Date               | JAN 2017  |
| Drawn By           | TSHEWANG GYELTSHEN                                  |
| Design By          | DINESH  |
| Drawing Number     | 12246 PL 03   |
| LEAPP Project Code | 12246   |
| Rev                | R0  |





LEGEND

- Main Supply Pipe from Water Tank (32mm dia)
- Main Distribution Pipe (20mm dia)
- Distribution Pipe (15mm dia)
- Hot Water Pipe (15mm dia)

Notes for plumbing:  
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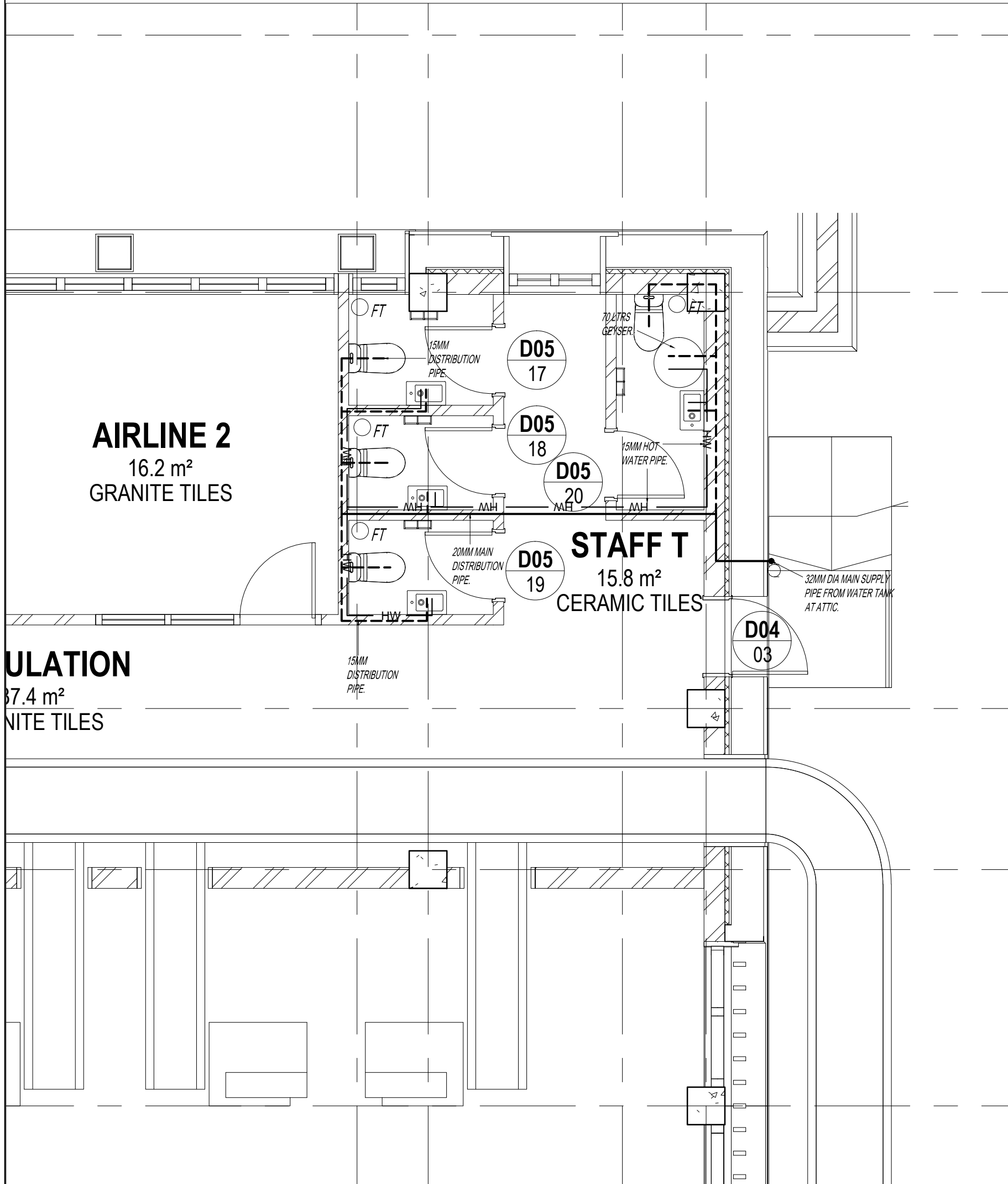
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| Client                        | Ministry of Information and Communications<br>Department of Air Transport                    |
| Aviation Planners & Engineers | Leading Edge Aviation Planning Professionals   |
| Architect                     | Tullamore Group  |
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| Project Title                 | BHUTAN DOMESTIC AIRPORT<br>DESIGN AND SUPERVISION<br>BUMTHANG AIRPORT<br>PASSENGER TERMINAL. |

Drawing Title  
**GROUND FLOOR  
PLUMBING LAYOUT  
CHECK IN TOILET**

|                    |                    |
|--------------------|--------------------|
| Scale              | 1:50 @ A3          |
| Date               | JAN 2017           |
| Drawn By           | TSHEWANG GYELTSHEN |
| Design By          | DINESH             |
| Drawing Number     | 12246 PL 04        |
| LEAPP Project Code | 12246              |
| Rev                | R0                 |





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| Ministry of Information and Communications<br>Department of Air Transport |

| Aviation Planners & Engineers                |
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| Leading Edge Aviation Planning Professionals |

| Architect       |
|-----------------|
| Tullamore Group |

| Civil Engineering Consultant |
|------------------------------|
| Gyaltshen Consultancy        |

| Project Title  |
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| BHUTAN DOMESTIC AIRPORT<br>DESIGN AND SUPERVISION<br>BUMTHANG AIRPORT<br>PASSENGER TERMINAL. |

| Drawing Title                                   |
|---|
| GROUND FLOOR<br>PLUMBING LAYOUT<br>STAFF TOILET |

| Scale              | 1:50 @ A3          |
|--------------------|--------------------|
| Date               | JAN 2017           |
| Drawn By           | TSHEWANG GYELTSHEN |
| Design By          | DINESH             |
| Drawing Number     | 12246 PL 05        |
| LEAPP Project Code | 12246              |

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