

# Tenant Fit-Out Manual January 2017

Version 1.3



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# Section 1 - General Information

### 1.1 Introduction

The purpose of this manual is to provide relevant information to guide and assist Tenants and their designers, architects and fit-out contractors to ensure completion of fit-out works safely, and in compliance with all building standards which are applicable locally.

Tenants will remain ultimately responsible for compliance with the provisions of this manual and are therefore advised to read its contents carefully.

Tenants must ensure that a copy of this manual is provided to their architects, designers, engineers and contractors to ensure that all design and fit-out works are undertaken in accordance with the provisions of this manual.

A Fit-Out Coordination team from DUBAI SOUTH will be introduced to tenants to or their representatives to assist in all phases of the fit-out works by providing base building information, fit-out information and clarification on the provisions of this manual, as necessary.

# 1.2 Fit-Out Design

Each fit-out design must comply with the design criteria, design restrictions and specifications set out in Section 6. Designs that do not meet such requirements must be amended and re-submitted.

#### 1.3 Fit-Out Process

Each fit-out project must follow the process described in Section 5.

Tenants will be required to submit a fit-out deposit as a bond to cover potential costs, damages and expenses that may be incurred during the fit-out process. The fit-out deposit is covered in more detail in Section 4.4.

# 1.4 Fit-Out Works

Tenants are responsible for making all arrangements for the carrying out of all works required by their fit-out proposals using approved contractors (see Section 4.3). All fit-out works must be undertaken in accordance with the provisions of this manual and applicable law, rules and regulations. The fit-out works will be monitored periodically by DUBAI SOUTH to ensure compliance.

At completion of the fit-out process the Tenant should apply to DUBAI SOUTH for approval of **Fit-out Work Completion** in order to commence business operations.

#### 1.5 Fit-Out Forms

Throughout the fit-out process, Tenants or their contractors will be expected to provide certain information to DUBAI SOUTH through the completion and submission of various fit-out forms. These forms are explained in the following sections of this manual. A full list of forms appears at Appendix A.





# Section 2 - Glossary of Terms

**AUTHORITY** 

Shall mean the Dubai World Central Corporation (DWCC) - Dubai South or any other entity delegated by Dubai South.

SERVICE AUTHORITY shall mean the following entities for the projects within Dubai South :

- o Water & Electrical DEWA
- o Drainage Dubai South
- o Fire & LPG Dubai Civil Defense
- o Telecom Etisalat/ Du
- o HVAC Dubai South
- o Police and Security Dubai Police
- o Health, Safety & Environment Dubai South
- o Height and Flight navigations Dubai International Airport representing DCAA

**REGULATIONS** 

The rules and statutes listed in this publication and other regulations issued by the "Authority" or any other rules issued in the future.

**TENANT** 

A person or company who has rented office / retail space from Dubai South under a tenancy contract.

CONSULTANT / DESIGNER

A locally registered consultant holding a valid consulting Engineers trade license from DED and registered with Dubai South

**CONTRACTOR** 

A locally registered contractor holding a valid contracting trade license from DED for the type of works and classification therein and registered with Dubai South

FITOUT WORKS

All new works in a shell & core area or modifications to existing basic fit-outs at the premises, which require modifications and additions to the existing building services & fixtures.



# Section 3 - Building Technical Information

The office park buildings have the following services pre-installed:

#### Fire Protection/Alarm System 3.1

The Fire Protection/Alarm System for the office park buildings includes the following features:

- Fully automated sprinkler system
- Fire hydrant/hose reel system
- Intelligent optical smoke detectors
- Water flow and tamper switches at each sprinkler zone
- Manual alarm initiation through double action "pull stations" distributed throughout the building

Fire hose reels and landing valves are located in the core areas of the buildings and near exit staircases. The locations of the fire hose reels allow for the full coverage of all floor areas.

Sprinkler piping stub-outs – 2 inches are provided within the core and shell area. Tenants are to extend the sprinkler piping system within their leased premises (at the Tenant's cost) as required to comply with local fire protection regulations of UAE Fire and Life Safety Code of Practice and any other codes and standards that may apply from time to time. Refer section 6.4 for further information on Fire alarm / Firefighting system requirements.

#### 3.2 **Electrical**

The electrical system for the office park buildings includes the following:

- Sub-main distribution board in the electrical room.
- Loads up to 70 VA/ m<sup>2</sup> for office areas and 300 VA/ m<sup>2</sup> for retail areas.
- Electricity supply system of 400/230 volts, 3 Phase, 50 Hz provided on each floor.
- Emergency power supply system for lighting purposes only
- Standby generators to supply backup power for life safety equipment (not back up power for the leased premises)

The leased premises have a separate LV normal power supply feeder (to disconnect switch) connected to its related metering unit in the electrical room. Tenants are responsible for providing the electrical installations from the electrical room distribution boards and installation of lighting and power within the leased premises.

Tenants must ensure that the design and installation of all electrical fittings and wiring is performed by a qualified electrical contractor in compliance with the regulations for electrical installations issued by the Dubai Electricity and Water Authority (DEWA) in addition to BS/IEC standards (where not in contradiction with the local codes of practice and regulations).

Possibility to increase the electrical supply capacity to meet the Tenant's requirements is subject to spare load availability. If an increase is required, Tenants must obtain a prior written approval from DUBAI SOUTH and fees for additional load requirement may apply. All necessary work for increasing the electrical supply capacity will be carried out by qualified electrical contractor at the Tenant's expense.

#### 3.3 Air Conditioning

Air conditioning systems are supplied by DUBAI SOUTH to suit an open plan layout. The air conditioning system is designed for a cooling load of 22 m<sup>2</sup> /TR.

Chilled water for air conditioning will be provided from DLC'S Central Utility Complex (CUC-DLC) and will include chilled water stub-out piping to the leased premises. The Tenant's design plans will be reviewed and approved by DUBAI SOUTH to ensure the design within the cooling load.





# **Building Management System (BMS)**

For a core and shell type fit-out where new FCUs and their controls are to be added, all the FCUs controller i.e. thermostats shall be integrated with the building BMS system by the fit-out contractor. This is to match the building standards and allow DUBAI SOUTH to monitor and control the comfort level and Energy usage in the buildings and to allow DUBAI SOUTH Facilities maintenance to maintain the air-conditioning system properly in the long run.

- > The Office park FCU Thermostats need to be of Johnson Controls make. (Refer Appendix B for specifications)
- > The FCU Thermostats need to be wired to each other as a chain and terminated at the building BMS control center in the ground floor along with the A/C installation works as per schematic shown in Appendix-C.
- > The programming for FCUs to communicate with BMS shall be done only by the existing BMS contractor for the building who will check the capacity of the spare points in the BMS and advise if a controller is to be added to the system.
- > The cable type for the FCU Thermostat shall be of below type for proper BMS communication.

Bus & Cable	Non-Plenum App	olications	Non-Plenum Applications			
Туре	Part Number	O.D.	Part Number	O.D.		
<b>FC Bus</b> : 22	Anixter:	0.138 in.	Anixter:	0.140 in.		
AWG stranded	CBL-22/3-FC-		CBL-22/3-FC-			
3-Wire twisted	PVC		PLN			
shielded cable.						
	Belden:		Belden:			
	B5501FE		B6501FE			

- > Monitoring and control for the server room cooling systems also need to be connected to the building BMS apart from any local controls required by tenant. It is advised to have proper integration of the air-conditioning controls with the building BMS since DUBAI SOUTH Facility management technicians can provide proper maintenance and support for the facility after it is completed and operational.
- Only the existing BMS contractor shall be employed by the fit-out contractor at their cost who will be responsible for supplying the JCI thermostats, wiring and other accessories for the job, including the integration of the controls to the BMS.

#### 3.4 Elevators

Each building in the office park includes four (4) passenger elevators, each with a capacity of 1250kg. In addition, each building includes one (1) service elevator servicing all floors with a capacity of 1250kg.

#### **Water and Sewage** 3.5

All leased premises are provided with a cold water supply line and sewage drainage. Tenants may be required to install cold water meters at their own cost and expense as per DEWA requirements. Meters must be installed in accessible locations. If Tenants require hot water, a water heating system must be included in the Tenant's fit-out design documentation and installed by the Tenant's fit-out contractor at the Tenant's cost.

#### Information and Communications Technologies (ICT) 3.6

A Consolidation Point (CP) is provided within the leased premises to provide a link between the Tenant's network and the Landlord's permanently installed network cabling. The Tenant's network, whether cabled or wireless, is the Tenant's responsibility.



# DUBAI SOUTH

# Section 4 - Pre Fit-Out Requirements

# 4.1 Lease Agreement

All tenancies are subject to the terms and conditions of the lease agreement between DUBAI SOUTH and Tenant. Possession of the leased premises will not be granted until the lease agreement has been signed by both parties. Tenants are advised to determine and settle their monthly utilities bills like electricity, air-conditioning and water of their leased premises with DUBAI SOUTH and relevant Authorities. Furthermore tenant shall not be allowed to occupy the leased office space till "Fit-out Work Completion" is approved by DUBAI SOUTH.

#### 4.2 Handover of Leased Premises

Unless otherwise agreed in the lease agreement, the Tenant will be informed by DUBAI SOUTH of the handover date for the leased premises. The Tenant or its authorized representatives will be required to attend a handover meeting at the leased premises, go through the Handing over checklist and certify that the leased premises and the Landlord's fixtures and fittings have been handed over to the Tenant in a good and leasable condition.

If any defects in the leased premises or any of the Landlord's fixtures and fittings are identified these shall be reported on the Handing over checklist and DUBAI SOUTH will promptly address these. Once the defects have been remedied the Tenant or its authorized representatives must confirm the rectification work has been satisfactorily completed.

Once the Tenant has certified taking over the leased premises, the Tenant will become responsible for the upkeep, cleanliness, and security of the leased premises.

# 4.3 Approved Contractors

All fit-out works (including alterations or addition to finishes and mechanical and electrical (MEP) services within or outside the leased premises) must be carried out by registered contractors.

If the Tenant desires to use a contractor or contractors that are not registered, the Tenant must provide details of the proposed contractor(s) by completing and submitting form F-017 – Consultant/Contractor Registration to DUBAI SOUTH for review and approval. Tenants are reminded that contractors undertaking certain works

will need to be registered and approved by other governmental authorities in addition to DUBAI SOUTH. For example, contractors working on the fire protection/alarm system must be approved by Civil Defense.

# 4.4 Fit-Out Deposit

Tenants are required to provide a fit-out deposit as a performance security to ensure complete compliance with the provisions mentioned in this manual and to cover potential costs, damages to any equipment or areas which come under use during fit-out works (including but not limited to service elevator, common areas, stair cases, parking areas, loading/unloading areas etc. and all areas under fit-out Scope of works which are approved by the authority) and any other expenses that may be incurred during the fit-out works process. In the event that DUBAI SOUTH has a claim against the Tenant (or the Tenant's contractors) that exceeds the amount of the fit-out deposit, DUBAI SOUTH may claim the excess from the Tenant as a debt.

The fit-out deposit shall be calculated as follows.

SIZE OF LEASED PREMISES	AMOUNT OF FIT-OUT DEPOSIT
1,000 m <sup>2</sup> or less	50,000
1,001m² to 5,000m²	100,000
Over 5,000m²	150,000

<sup>\*</sup> A knowledge fee of AED 10 applies to each transaction.

The fit-out deposit must be paid upon appointment of the fit-out contractor (see Section 4.3) by a security deposit cheque un-dated and un-cashed.

Subject to any deductions claimed as above, the fit-out deposit will be refunded to the Tenant, promptly upon approval of the **Fit-out Work Completion form.** 





#### 4.5 Fit-out Approvals Fee & Penalties

The following fee structure applies to all fit-out jobs:

SUBMISSION NAME	FEE *
Fit-out HSEQ NOC (<= 1000 m <sup>2</sup> )	AED 1,000
Fit-out HSEQ NOC (> 1000 m²)	AED 10,000
Contractor Registration (New)	AED 2000
Contractor Registration (Renew)	AED 1000 (Annually)
Fit-out Work Permit	AED 15 / m <sup>2</sup> or minimum AED 2500
HSE Violations	see Section 9.7
Online Application access	AED 250 for each project for 6 months of access. Renewable by paying AED 250 fee.

<sup>\*</sup> A knowledge fee of AED 10 applies to each transaction.

#### 4.6 Insurance

#### Fit-Out Contractors

Fit-out contractor must procure and maintain CAR (Contractors' All Risks) and Public Liability Insurance with coverage of not less than 125% of the cost of the fit-out works for any one incident and unlimited in aggregate for the duration of the fit-out works.

Tenants must ensure that their fit-out contractors also have in force and maintain for the duration of the fit-out works Workers' Compensation insurance with coverage of not less than AED 500,000 per person to cover all employees involved in the fit-out works.

Tenants must ensure that their fit-out contractors provide evidence that such insurance policies are in place to DUBAI SOUTH.

#### 4.7 **Disputes**

All complaints and disputes concerning Fit-out works shall be referred to the Authority. Any financial disputes shall be referred to Dubai courts.

Authority shall carryout HSE inspections periodically during and post construction. However tenant and his agent shall be held responsible for any accidents and/or damages arising out of any lapses to their own property and/or adjoining property for any consequential physical and / or financial damages and liabilities. All such incidents shall be reported to the authority.



# Section 5 - Fit-Out Process

#### Provision of "As Built" Plans 5.1

Tenants will be supplied with one set of drawings and specifications for the leased premises.

The copy is to enable the Tenant's designers/architects to start work on the fit-out design. The drawings will include:

- General floor plans including areas of increased live floor load areas and wet columns
- Reflected ceiling plans indicating speaker, sprinkler, light fitting layouts and details of perimeter cove lighting for the leased premises and the elevator lobby (when appropriate)
- Raised floor layout plans for the public corridor (when appropriate)
- Layout plans for hallway walls, lighting notch and air outlet
- Ventilation and air conditioning (VAC) plans
- Electrical plans showing lighting and power layout, electrical and meter room layouts and Load Schedule
- Plumbing and Drainage (P&D) plans including wet columns
- Fire Services (FS) plans
- Technical data with respect to Mechanical and Electrical (M/E) provisions

Structural drawings and Building Management System (BMS) drawings are available on request.

#### 5.2 Tenant's Fit-Out submission Drawings

Following receipt of the As-Built plans, Tenants may arrange for a kick-off meeting between their designers/architects and DUBAI SOUTH.

The designers/architects must submit the fit-out complete set of drawings along with form F-001 - Fit-out work Permit to DUBAI SOUTH for review and approval. One electronic copy (AutoCAD 2004 or above) and two A3 size prints of each fit-out must be provided (DUBAI SOUTH might request bigger format depending on the premises size). The fit- out drawings must comply with the design criteria and design restrictions set out in Section 6.

If the fit-out drawings are not accepted, the designers/architects will be required to resubmit the drawings incorporating any amendments or additional information as may be requested by DUBAI SOUTH. This process will continue until the design meets all the system requirements as set out in this manual.

#### 5.3 **Appointment of Fit-Out Contractors**

Only registered fit-out contractors are permitted to undertake works within the building (see Section 4.3).

Once the Tenant has appointed a fit-out contractor, DUBAI SOUTH will conduct an induction meeting with regards to building fit-out rules/regulations and site conduct. The purpose of the induction is to ensure fit-out works are carried out with due regard to protection of the building generally and with minimum of disturbances to other tenants.

#### Contractor's HSE Plan and Work Permit Request 5.4

The fit-out contractor must submit a risk assessment together with an HSE (health, safety and environment) plan (see Section 9) and any necessary governmental approvals and consents for the fit-out works (e.g. approvals from DEWA, Dubai Civil Defense etc.) to DUBAI SOUTH before applying for a Work Permit to commence the fit-out works.

A general Work Permit can be requested by submitting form F-001 - Work Permit Request to DUBAI SOUTH. The Work Permit will be issued provided the Tenant has submitted all required documents mentioned in the forms, the fit-out deposit, DUBAI SOUTH submission fees and OHSE NOC fees.

However separate requests shall be placed using online PTW (Permit to Work) if there is any work which affects any operational systems in the buildings. The link shall be provided to the contractor at the time of issuing general work permit.

# Commencement of Fit-Out Works

The tenant contractor shall commence the fit-out work upon receiving the work permit from DUBAI SOUTH and carry out works in accordance with the set out procedures in this manual.



# DUBAI SOUTH

# 5.6 Completion of Fit-Out Works

#### Connection of Utilities

Tenants should apply for all relevant third party utility connections at least 30 days prior to the scheduled date of completion of the fit-out works to ensure there is no delay in the Tenant's occupation of the leased premises.

# Testing and Commissioning

Once the fit-out construction works have been completed the fit-out contractor must notify DUBAI SOUTH that it is ready to undertake testing and commissioning. A DUBAI SOUTH representative must be present to witness the testing and commissioning.

The following components of the Tenant's fit-out must undergo testing and commissioning:

- Fire protection system (hydro test, smoke and heat alarm test)
- Plumbing and sanitary systems (leak test)
- Electrical systems (insulation test)
- HVAC systems (by DM approved 3<sup>rd</sup> party):
  - o Chilled water Piping Hydro testing and pressure testing.
  - o Chilled water pipe flushing, chemical treatment.
  - o Adjustments & Balancing (Air & Chilled water).

Work Completion will not be issued unless all tests are conducted with satisfactory results and reports are submitted to DUBAI SOUTH.

# Final Inspection

Once the fit-out works have been completed the fit-out contractor must submit form F-002 – Fit-out Work Completion to DUBAI SOUTH and schedule a joint final inspection of the works.

As part of the final inspection Tenants must:

• arrange for inspections and submit evidence that all required approvals have been received from the relevant government agencies (Fit-out Work

Completion form will not be issued and signed until the Tenant has provided DUBAI SOUTH with evidence that all applicable approvals have been obtained);

- apply to DUBAI SOUTH HSE for final inspection for completion.
- agree any directory signage with DUBAI SOUTH;
- notify DUBAI SOUTH of the occupation date in order to ensure the airconditioning supply is fully operational at that date;
- Submit to DUBAI SOUTH all completion / testing & commissioning certificates for electrical, fire services and HVAC installations, and complete sets of "as-built" plans (consisting of two reduced A3 copies and with an electronic copy in AutoCAD (2010 or above)).
- Additional HVAC documents / reports required at the time of final inspection:
  - o Third party CHW analysis reports (Flushing and chemical treatment).
  - o Third party testing, commissioning, adjustments and balancing reports for CHW and air side reports.
  - o Submission of O & M manuals, as built drawings, warranties and equipment manufacturer details.

# 5.7 Fit-out Work Completion

Once the final inspection has been completed and the works have been approved and provided the Tenant has submitted all relevant governmental approvals, completion / testing & commissioning certificates, O & M manuals, "as-built" drawings, warranty certificates and manufacturer details as per Section 5.6, DUBAI SOUTH will issue the approved Fit-out Work Completion to the Tenant, entitling the Tenant to occupy the leased premises and commence operations.

Promptly after issue of **Fit-out Work Completion**, DUBAI SOUTH will refund the Tenant's fit- out deposit (less any applicable deductions).



# Section 6 - Design Criteria and Design Restrictions

### 6.1 Architectural

#### General

Designs which propose modifications such as chasing or the forming of openings in structural walls or floors are prohibited.

Fit-out designs must use only new, high quality materials, fixtures, fittings and furnishings. Tenants are encouraged to employ natural materials wherever possible. Materials proposed for the frontage of the leased premises must be of first class quality and durability, fully suited to the location and degree of exposure to the installation.

All partitioning work shall be non-combustible dry partitioning. Glass partitions may extend down to the floor level and tempered glass is to be used.

Colors used should generally follow and be in harmony with the overall fit-out of the premises.

#### Walls

Accepted materials – depending on the location of use:

- Paint
- Wood cladding
- Wall paper
- Tiles
- Decorative gypsum

Note: Other material not in the list can be submitted and subject to approval.

# Ceilings

Ceiling work shall include all work related to ceiling treatments including light covers, suspended ceilings, acoustical treatment, and other related items.

The suspended false ceiling design within their areas will not infringe the requirements of the Fire Safety design.

All equipment within the ceiling void is supported by a suitable suspension system independent of the ceiling.

The suspended false ceiling should be readily demountable type for maintenance and inspection. Proper, safe and convenient access to all valves, switches and other mechanical equipment requiring maintenance is provided.

### Floor Finish

Fit-out designs must ensure that there is full continuity of floor finishes. Where parts of the frontage of the leased premises (including entrances) are recessed behind the boundary line of the leased premises, the level of the common lobby floor shall be maintained to the frontage of the leased premises to achieve a full continuity floor finish.

The finished floor level at the entrance to the leased premises must match exactly the finished floor level of the common flooring. No threshold, reducer strips or other transitional devices shall be permitted at the intersection of the common flooring and the floor of the leased premises.

Accepted materials – depending on the location of use:

- Raised floor
- Carpet and carpet tiles Anti- allergic Anti-termite fire resistant stain resistant (antifouling) Anti-static.
- Vinyl subject to approval sound reduction layer (or similar) antislippery – resistant to heels – stain resistant.

Note: Other floorings not in the list can be submitted and subject to approval.

# Columns and Fire Hydrants

All structural columns within the leased premises will be noted on the existing floor plans and must be treated by the fit-out contractor. If fire hose cabinets are situated in the frontage of the leased premises, they are to be incorporated in the frontage design at the Tenant's cost.

# DUBAI SOUTH

#### Wet Areas

Designs that include wet areas are **not recommended** and will require special approvals. The fit-out design must include full details of the waterproofing method to be used along with the methodology of application of the waterproofing (which must meet generally applied international standards). The fit-out design must also specify how such areas will be maintained and the frequency of maintenance.

# **Common Areas**

Fit-out designs may not propose amendments or modifications to (or involving) the common areas and common facilities. The Tenant's fit-out design must not encroach beyond the boundary line of the leased premises into any common area.

# SACS (Security Access Control System) / CCTV (Closed Circuit Television)

Tenants are advised to install their own individual security systems to protect the leased premises. The details such as drawings and material of such security systems (SACS & CCTV) must be submitted to DUBAI SOUTH for approval as part of the design review process and assess the impact on the building fixtures.

For the installation of a Security Access Control system (SACS) our requirements will be as followed:

- All locks shall be compatible with the Building Master Key system.
- All SACS doors shall be interfaced with building's fire alarm system to unlock automatically in case of fire. Details of interlocking any door access controls with the Fire alarm system will be separately advised by Senior Engineer Fire Safety.
- Cost of installation of relay module will depend on the length of cable needed to connect to the fire alarm loop. Additionally, programming charges of the relay module will be levied.
- The SACS supplier has to coordinate with building's Facility Management (FM) team representative.
- When the Tenant moves out from his office, de-programing will be executed at the Tenants expenses.
- Any damages to the existing doors during the works will be charged as per FM terms and conditions.
- Any deviation, or modification to the existing conduits or any damages arising out of associated work will be entirely under tenant's responsibility and repairs will be entirely at his/her expense.

## Signage

All signage shall be included in the fit-out proposal as an integral part of the fit-out design. Signage will be subject to approval as part of the design review process.

It is required from all the Tenants located in the Ground floor of the office park to have an external signage as per the Authority's specifications.

The conditions of the approval will be as followed:

- The dimensions will be coordinated with the external glazing's mullions and transoms. Hatch area in red.
- The area of the premise will define the length of the signage. Note: There must be **no gaps** between one signage to another.
- The signage must be readable from distance. Font size must be according to reading distance as table below:
- High quality, durable materials will be accepted only.
- Light boxes are not permitted
- Signage must be limited to the trade name (as agreed to in the lease documentation with the Landlord) and logo.

Reading	Minimum	Recommended			
distance	size	size			
>5000 mm	70 mm	140 mm			
4000 mm	56 mm	110 mm			
3000 mm	42 mm	84 mm			
2000 mm	28 mm	56 mm			
1000 mm	14 mm	28 mm			
500 mm	7 mm	14 mm			

- Advertising or product names or taglines cannot be displayed as part of the signage.
- The contractor will have to submit full specifications and illustrations of the same along with the **Signboard approval request** form.





# DUBAI SOUTH

# Additional Requirements

- Tenants are strongly advised to provide handicapped access and other facilities within the leased premises in accordance with the applicable requirements laid down in Dubai Universal Accessibility codes And Regulations.
- Surfaces or projections that may be hazardous to the public are not permitted.
- Satellite dishes and other antennae that may protrude from the leased premises are not permitted without the prior written approval of DUBAI SOUTH.
- DUBAI SOUTH security or any other authorized person shall be granted full access to CCTV footage if required in case of any criminal investigation or other emergencies.

### 6.2 Retail Tenancies

#### Storefronts

DUBAI SOUTH will provide full height glazing and a door opening into the ground floor lobby for leased retail premises as shown on the floor plans. Painting or covering of the glazing by any means shall not be permitted without the DUBAI SOUTH's prior consent.

#### Storefront Closure

Acceptable means of storefront closure to the open portion of the leased premises are as follows:

- Roller shutter such as "Mirage Clearline" (or equivalent) which is fully concealed when open.
- Fully glazed top hung horizontal sliding doors in equal segments, stacking one behind the other (floor tracks are not acceptable).

# Façade and Structure

The Tenant is responsible for the structural performance of any storefront design; a professional review is encouraged. All storefront work requiring structural support (including doors) must be braced to the structure above. If any additional structural support is required the requirement must first be approved by DUBAI SOUTH.

# 6.3 Mechanical and Electrical

All fit-out designs must take into account and comply with the following requirements and restrictions concerning mechanical and electrical systems within the building and the leased premises:

#### Electrical

# **General Fit-out Works**

All new works or modifications to existing fit-outs at the premises, which require extensive modifications and additions to the existing building services installations fall under this category. The proposed works associated with fit-out may require approval from DEWA according to the scope of work, but work permit approval from DUBAI SOUTH's Electrical department is mandatory.

# Minor Fit-out Works

Any relocation / addition of light fittings and small power outlets without disturbing the existing power distribution within the premises from the distribution board fall under this category. Work permit approval from DUBAI SOUTH is required.

## **Electrical Works**

The design and execution of electrical installations must be in accordance with DEWA regulations, in general. The fit-out electrical contractor should comply with relevant standards during the design and installation of electrical services. The key points to be followed during the electrical services design are as given below:

- 1. Component and parts of the installation such as Cables, Apparatus, Equipment and Accessories shall comply with the relevant BS standards and building specifications.
- 2. Switches and sockets shall generally be fixed in accordance with the mounting heights and the measurement recommended in relevant standards.
- 3. Recommended lighting intensity shall be as per CIBSE Standards. In order to minimize the power consumption, LED type of lights and lamps will be preferred.
- 4. All conduits though the ceilings and walls and raised floors to be GI.
- 5. All the electrical symbols used shall be as per BS standards.
- 6. It will be the fit-out contractor's responsibility to submit the drawings for lighting and power and get the approval from DEWA.



- 7. The electrical works shall be carried out in accordance with the final approved drawings and conditions. The below items illustrate the basic requirements to be followed by the Tenant and their Fit-out Contractor during the execution of works:
  - Any deviation from the approved drawings and conditions not expressly approved by DUBAI SOUTH shall be considered a defect; Tenant and/or the fit-out contractor must rectify it at their cost. A full set of the approved drawings & permits MUST be displayed within Tenant's premises at all times during the fit-out period for reference.
  - DUBAI SOUTH Inspector will conduct routine site visits to the premises and issue instructions / comments on the activities where appropriate and inform the Fit-out Contractor's Site Engineer and Tenant of any irregularities which could cause major delays or safety concerns.
  - Upon completion of first fix electrical works for General Fit-out works, the fit-out contractor should request for first fix inspection by DUBAI SOUTH before closing the false ceiling through.
  - The fit-out contractor to request final inspection along with first fix inspection request and other relevant documents.
  - Fit-out contractor to submit the As-Built drawings and other relevant documents immediately after completion of works.

#### In addition:

- For shell & core leased spaces and whole floor lease, the incoming cables from the electrical room to the Tenant's final distribution board will be done by a qualified electrical contractor at the Tenant's expense.
- Isolator switches and main/local MCCB/MCB shall be provided as part of the final distribution board inside the leased premises
- All interior conduits and wiring for interior lighting, power sockets for appliances, etc. Are to be provided by the tenant
- Additional power/sockets and light fittings are to be provided by the tenant
- Small computer rooms are permitted provided these meet the power and cooling loads for the leased premises. Dedicated data center facilities are available from smart technology services DUBAI SOUTH-LLC at dedicated sites within DLC.
- The installation of a DDC compatible electric meter must be provided.

For single Tenant floor, a tee-off connection point (tap-off point) from the feeder

busbar inside the switch room will be provided by **DUBAI SOUTH**. Plug-in units complete with isolators of the appropriate rating will be installed by the landlord's Contractor at the Tenant's cost. Power supply will be limited according to the assigned power supply to the floor.

# Air-conditioning

The chilled water stub-out piping to the leased premises are designed to provide sufficient cooling capacity to maintain comfortable temperatures for normal business activities. Any additional air conditioning units subject to approval of DUBAI SOUTH and availability of outdoor unit installation space must be procured and installed at the Tenant's cost.

Relocation of the fresh air ducts or any other changes to the main fresh air supply system within the ceiling void can be carried out by the Tenant's fit-out contractor, subject to prior approval of DUBAI SOUTH. For design purposes, the following air conditioning parameters have been considered:

Chilled water design parameters:

- CHW supply temp. = 5.5°C
- CHW return temp. = 16.9°C
- Water flow = 0.42 L/S
- Pipe size = 25mm (1")
- Chilled water plant Delta T = 11.4°C

Other Air-conditioning requirements / material recommendations:

- FCU's Decorative Type, (Capacity to be calculated as per room dimensions, area of window, floor location and heat load. maximum capacity up to 5.67 ton, 0.42L/S flow in one tapping point 25mm (1") or one tapping point can be divided into two connection or more) as per specifications and delta T should match 11.4°C. (Chilled water supply 5.5°C and return 16.9°C)
- FCU Angular Supports (size to cater FCU unit operational weight), (PHD-Inc. US / Flamco-Netherlands, etc.)
- Ducting Angular Supports (PHD-Inc. US / Flamco-Netherlands, etc.)
- Isolating valve (Flowcon-Denmark / Hertz Kid-Austria / Crane-US, etc.)
- Two-way Control Valve (Flowcon-Denmark / Hertz Kid-Austria / Crane-US, etc.)
- Balancing or Double Regulating Valve (Flowcon-Denmark / Hertz Kid-Austria / Crane-US etc.)



- Condensate u PVC Piping with insulation for FCU's (Armaflex / Aeroflex / Rubfelx-Italy etc.)
- Black Steel CHW Pipe (Nippon-Japan / Mittal Steel-India / V&M France etc.)
- Rubber Insulation for CHW pipe (Armaflex / Aeroflex / Rubfelx-Italy etc.)
- Pre Insulated Duct (Benair-Dubai / AEC Faisal Jassim Dubai /etc.)
- Volume Control Dampers (Airmaster-Ajman UAE / AEC Faisal Jassim Dubai / Weather Maker Itd Dubai, etc.)
- Supply Registers (Airmaster-Ajman UAE / AEC Faisal Jassim Dubai / Weather Maker ltd Dubai, etc.)
- Return Air Grills (Airmaster-Ajman UAE / AEC Faisal Jassim Dubai / Weather Maker ltd Dubai, etc.)
- CHW pipe air vents & Drains
- Aluminum Cladding of standard material for CHW Piping Insulation as per attached specifications Provisional item
- Other accessories and mounts (Threaded Rods/anti-vibration isolators / bolting / fasteners / clamps / wooden saddles / rubber pads/etc.)
- FCU Controllers TEC-TEC-26XX (as per ELV specifications)

The central chilled water distribution system includes valved stub-out piping to the leased premises. Stub-outs are 1" (25mm) in size and provided at each column. Each stub-out chilled water line has sub meter or BTU meter which includes flowmeter and temperature sensors.

# Plumbing and Drainage

Fit-out designs must comply with the applicable Dubai Municipality sewage and drainage regulations for wastewater discharge. For example, kitchen and pantry designs must include stainless steel grease traps. If it is necessary to install a waste discharge treatment unit in order for the Tenant to meet the regulations in respect of wastewater discharges into the sewerage network, the Tenant must obtain prior written approval from DUBAI SOUTH.

# 6.4 Fire Alarm / Firefighting Systems

The fit-out design may include alteration for the fire alarm and firefighting system to suit the Tenant's purposes provided such alterations comply with local fire protection regulations of Dubai Civil Defence and in compliance with UAE Fire and Life Safety Code of Practice and all other relevant codes and standards that may apply from time to time.

If a Tenant employs special fire suppression equipment or specific detectors for a computer room, such equipment and facilities may be connected to an independent panel, but this panel shall then be interfaced to building's main fire alarm control panel.

#### In addition:

- All additional fire alarm & firefighting system components shall be of the same make (manufacturer) and model as that of the existing fire alarm & firefighting system components.
- All installation materials like fire alarm cables, conduits, sprinkler pipes, etc. shall be of the same specifications as that of the existing systems.
- Contractor shall apply for a work permit (online) when connecting the new
  additional fire alarm devices and sprinklers to the building fire alarm and
  sprinkler systems respectively. Connection of new additional fire alarm devices
  and sprinklers, as per Dubai Civil Defence approved drawings and comments
  by DUBAI SOUTH Fire Safety engineer, shall be done by the building fire
  systems contractor.
- Fit-out contractor shall comply with all design comments from Dubai Civil Defence and shall call them for final inspection prior to applying for Fit-out Work Completion.
- The existing building fire systems contractor for the building shall be engaged by the fit-out contractor for:
  - o Supervision of fire alarm / firefighting system works.
  - o Connecting the new devices / sprinklers to the building systems
  - o Programming of fire alarm devices.
  - Testing and commissioning of fire alarm / firefighting system.
     (Contact details of building fire systems contractor shall be provided at the time of issuing Fit-out Work Permit).
- Room integrity test report to be submitted duly approved by building fire systems contractor for the areas protected by automatic fire suppression systems. Dampers for the HVAC, if any to be interfaced to close prior to discharge of fire suppressant.
- Additional power panels for the fire alarm system to be located in the nearby electrical room
- All Access Control doors to be interfaced to open in case of activation of fire alarm.





# 6.5 Information and Communications Technologies (ICT)

The ICT network design must conform to service provider's (Etisalat / DU) design guidelines. A network design pre-approval from the service provider may apply in case of major modifications to the ICT network. The approved design must be submitted to DUBAI SOUTH along with other system drawings if applicable.





# Section 7 - Design Plans and Specifications

### 7.1 General

The Tenant's detailed fit-out design must include the plans detailed in this **Section 6**. The Tenant's designers/architects must provide two sets of the final plans to DUBAI SOUTH for review and approval. Once approved, DUBAI SOUTH will return one set marked "Approved" or "Approved with comment".

In addition to the plans listed below, the fit-out design plans must also include a schedule of work showing the expected commencement and completion date and any important milestones.

Tenants must ensure that all plans must be submitted as soon as possible. To avoid unnecessary delays, Tenants should also ensure that their plans are as clear as possible and include all required details. No extra fit-out period will be allowed on account of the Tenant's plans not being ready or failing to comply with the provisions of this manual.

If DUBAI SOUTH believes that any aspect of the fit-out design requires verification by a specialist consultant, any extra costs incurred by DUBAI SOUTH in such verification will be charged as part of approval fee.

#### 7.2 Floor Plans

The floor plans for the leased premises must clearly show and are not limited to:

- the internal layout of the leased premises, including fittings and fixtures, specifying the materials to be used;
- any wall or partition the Tenant wishes to build or dismantle, specifying the height and materials to be used;
- the location of any unusually heavy loads, with full details of size and weight and drawings indicating proposed works required to spread the load (complete with calculations);
- hole drilling, structural safety calculations and certification approval;
- the location of proposed sanitary fittings (if any);
- locations of safes, filing systems or heavy equipment which have an imposed loading greater than 400kg per m<sup>2</sup>;
- details of any signage;

- details of raised flooring and wall connection for computer installations or similar equipment;
- details of modifications to entrance doors (if any); and
- Emergency evacuation routes.

# 7.3 Ceiling Plans

Ceiling plans must clearly show and are not limited to:

- detailed sectional drawings;
- details of any non-standard ceiling materials and their location(s);
- any partition which penetrates into the ceiling void and details of work inside the ceiling void and materials to be used (combustible materials and exposed cabling are not permitted within the ceiling void);
- the location of all light fittings and fixtures;
- the location of all emergency lighting;
- any proposal to change the location of the standard and non-standard light fittings and any additional light fittings, clearly indicating those that have diffuser attachments:
- the as-built location of the thermostat control units and proposed modifications;
- the existing layout of fire services sprinklers and proposed modification;
- the location of proposed smoke and heat detectors; and
- details and the location of proposed air diffusers, level of false ceiling and public address (PA) system, and all other installations or fixtures intended to be placed in or hung from the ceiling.

# 7.4 VAC Layout Plans

- as built shop drawings for chilled water piping, condensate drain and A/C ducting including associated accessories and fitting;
- chilled water and airside schematic diagrams; and
- PID diagrams.



# 7.5 Electrical Layout Plans

Electrical layout plans and related schematics must clearly show:

- the rating, type and location of the main switchboard and any local switchboards within the leased premises (load schedules must also be provided);
- the overall electrical schematic wiring diagram with data;
- all lighting and small power circuits;
- all telecommunications trunking arrangements
- MCC, ELCB and ratings;
- details of any electrical door locking devices for entrance doors;
- every independent electrical circuit plan and loading limit;
- single line diagrams showing the proposed power and lighting circuits.
   The diagrams must indicate the size of the cables, rating of breakers, wattages of light fittings, sources of power for normal and emergency lighting and the location of electrical meter(s);
- any proposed modifications or additions to the under-floor trunking system, including the cable management system, the location of power sockets and any electrical appliances;
- details of any electrical circuit required to be connected to the Landlord's stand-by power system (including calculation and distribution method);
- the maximum electrical demand calculation (note: the electrical supply voltage is 50Hz: 400v, 3 phase or 230v, single phase)

# 7.6 Mechanical Plans

Mechanical plans (i.e. those showing VAC, fire protection, plumbing and drainage equipment and facilities) must clearly show:

- proposed works and plumbing and drainage connection points with preferred pipe diameters and materials;
- proposed pipe routing;
- any additional plumbing requirements (such as backing through walls or floor slabs) with the piping route clearly marked;
- sections and details of penetrations through affected wall and floor slabs;
- details of pantry floor waterproofing (if applicable) on a 1:20 scale; and
- details of grease trap connection (applicable for canteens & restaurant).

# 7.7 Fire Services Plans

The fire services plans must clearly show:

- any proposed modification, to the fire sprinkler system as against the existing;
- any proposed additions or alterations to the hose reel system; and
- plans for the fire alarm and detection system as against the existing and emergency lighting system

All above shall be approved by Dubai Civil Defence and endorsed by Building Fire Systems Contractor prior submitting to DUBAI SOUTH Safety team for approvals.

# 7.8 Security System Plans

The design drawings for the security system for the leased premises must clearly show:

- Proposed door contacts, break glass alarms, etc. complete with conduit (optional).
- Wiring and final connection of the Tenant's door contact break-glass sensor points, etc.

# 7.9 Card Access Control Plans

The card access (Card Key System) design drawings for the leased premises must clearly show:

- Card Key Control Unit into the main entrance door complete with conduits (optional)
- Card Key Control Units into other proposed access control points complete with conduit (optional)
- Conduit within the common area and all control/signal wiring beyond the signal connection point shall be done by landlord's Contractor at the Tenant's cost.





# 7.10 Other Services Plans

The Tenant must include plans for other services such as CCTV and security systems as separate detailed drawings with all conduit runs and connection points clearly marked. The location of signal interface points between the Tenant's and the Landlord's systems (if any) must also be clearly indicated.

# 7.11 Changes to Approved Plans

If any alterations are proposed to the fit-out design after the detailed design plans have been approved the design plans must be revised and re-submitted for review and approval.



# Section 8 - Fit-Out Rules

#### 8.1 General

#### General Work Permit

The work permit must be displayed at the leased premises at all times during the period of the fit- out works.

# Standards of Workmanship

All fit-out work must be carried out by suitably trained and experienced personnel and in a manner that complies with all applicable standards, regulations and accepted industry practices.

#### Co-ordination of Works

Whenever required, all contractors employed by the Tenant shall coordinate their work with other contractors employed by other tenants and contractors who are working in the same premises.

#### Overtime

The Tenant's contractor must notify DUBAI SOUTH at least 48 hours in advance of any work to be undertaken after 18:00 hours or at the weekend by completing and submitting form - Night Shift Work Permit.

# Smoking

Smoking on site is strictly prohibited. Tenants must ensure that an adequate number of 'no smoking' signs are posted in visible areas within the leased premises.

# Cooking etc.

Cooking or living at the leased premises is strictly prohibited.

#### Behavior on Site

All workmen are to be attired properly and should refrain from loud or offensive language and boisterous or unruly behavior. The consumption of alcohol and gambling is strictly prohibited.

#### 8.2 Access

#### General

Following hand-over of the leased premises (see Section 4.2) DUBAI SOUTH will grant the Tenant's representatives and the Tenant's approved contractors reasonable access to the building and the leased premises in accordance with the provisions of this manual.

DUBAI SOUTH security reserves the right to refuse access to the building or any part thereof to any personnel if the security on site believes that such refusal is warranted for whatever reason.

#### Site Access

The Tenant's representatives and employees of the Tenant's contractors attending the leased premises during the fit-out period will be issued with access passes and high-visibility working vests confirming authorized access. Access passes must be conspicuously displayed at all times whilst in the building. Personnel found without an access pass or other form of appropriate identification may be escorted out of the building by DUBAI SOUTH security.

All workers must enter the building through the assigned entrance and follow the assigned route as described in the contractor's fit-out induction. Workers may only use the service elevator to reach the leased premises and not any of the main building elevators.

During fit-out, Tenants must set up their own access control around the leased premises and leave a spare key with DUBAI SOUTH for emergency access outside of working hours. Neither DUBAI SOUTH nor its representative if any will be responsible for the loss or damage of construction materials or any other property belonging to the Tenant or its contractors that may be kept at the leased premises during the fit-out period.



The Tenant shall allow DUBAI SOUTH and its other contractors, agents and representatives access to and from the leased premises during the fit-out period to inspect the progress of the fit- out works and perform the Landlord's other responsibilities and obligations in accordance with the provisions of this manual and the terms of the lease agreement.

#### Plant Room and Roof Access

For the purpose of security and safety, all plant room and roof access doors are always in the locked position. If it becomes necessary to use these doors, they must not be held or left open. A breach of this provision will entitle DUBAI SOUTH security on site to remove the responsible contractor or worker(s) from the building.

#### 8.3 Use of Elevators

# **Passenger Elevators**

Passenger elevators are for the Tenant personnel use only. Passenger elevators must not be used for transportation of workers, tools, machinery, equipment, materials or furniture.

#### Service Elevator

The service elevator has a load limit as specified on the elevator which shall always be observed by the fit-out contractor. The Tenant may also be required to provide an indemnity against all or any actions, losses and claims for damages as a result of or incidental to the use of the service elevator outside its recommended specifications.

Tenants are reminded that the service elevator is a shared facility and that there may be a heavy demand for the service elevator during the fit-out period. Accordingly, contractors should arrange for the transportation of large or heavy items via the service elevator outside of peak usage times.

# 8.4 Noisy or Disruptive Works

The Tenant must ensure that its contractors take all reasonable steps to avoid causing a nuisance or disturbance to other tenants (such as closing the door to the leased premises during fit-out works). All works which are noisy or disruptive must be undertaken outside of normal working hours (08:00 hours to 16:00 hours Sunday through to Thursday). DUBAI SOUTH may stop or suspend any work if such work is creating a nuisance to other Tenants or visitors to the building.

# 8.5 Heavy Equipment

There are restrictions on the transportation and installation of heavy equipment within the building. Items that are deemed to be "heavy equipment" include, but are not limited to, compactor units, safes and large photocopiers.

If the fit-out requires heavy equipment to be mobilized in the building, at least 48 hours prior notice must be given to DUBAI SOUTH to ensure that all safeguards and other arrangements are in place. Such notice must specify the exact weight and dimensions of the heavy equipment.

If the fit-out requires heavy equipment to be installed at the leased premises prior written approval must be obtained from DUBAI SOUTH. In addition to providing details of the weight and dimension of such heavy equipment, Tenants must also provide details of the supports and proposed installation location, using dimensions from a fixed point of the building structure (excluding partitions). The Tenant must also provide details explaining how damage to walls, floors and finishes and overstressing of suspended flooring is to be avoided.

# 8.6 Protection during Fit-Out Works

Tenants must ensure that the floors, walls, finishes, fixtures and fittings leading from the service elevator lobby to the leased premises are adequately protected so that the fit-out works do not cause any damage. Care must be taken when moving personnel, tools, equipment or materials throughout the building to avoid damage. Only rubber-wheeled carts and trolleys are allowed to be used to deliver goods and materials within the building.

Any damage caused by the Tenant's fit-out works of the transportation of equipment, tools, personnel or consumables through the building must be repaired or replaced by the Tenant or its responsible contractor(s) at the Tenant's cost and to the satisfaction of DUBAI SOUTH. If the damage is not repaired to DUBAI SOUTH's satisfaction, it will arrange for the damage to be repaired and the corresponding cost will be re-charged to the Tenant through a deduction from the fit-out deposit. If the total reinstatement cost is higher than the fit-out deposit, the Tenant will be responsible for the balance.

Proper and adequate firefighting equipment (e.g. portable fire extinguishers, fire blankets and sand buckets etc.) must be made available at the leased premises during fit-out at the Tenant's expense. Extinguishers **MUST** be in good condition and in working order. A minimum of one (1) carbon dioxide type hand held extinguisher (min. capacity 4.5kg) should be provided for every 100 m<sup>2</sup> of leased area.



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# 8.7 Disposal of Debris

All rubbish associated with the fit-out works must be contained within the leased premises and cleared at the end of each day so as not to create an unsafe or unsightly work environment.

Where it is necessary to provide a site waste bin, the location, security and frequency of removal shall be arranged in consultation with DUBAI SOUTH. In any event, full waste bins shall be removed within 24 hours of their filling. Bins are to be provided with lids capable of being secured to ensure the contents are not dislodged. The loading bay is not to be used as storage area of rubbish or fit-out materials.

If the fit-out works generate a large volume of debris greater than the capacity of the site bin DUBAI SOUTH will assist with the disposal at the Tenant's cost.

All debris must be segregated and disposed as per health & safety and Dubai Municipality regulations. Further details can be obtained from DUBAI SOUTH.

# 8.8 General Cleaning Requirements

The Tenant is responsible to ensure that all areas used by contractors and others connected with the fit-out works are left in a clean and tidy condition during and at the completion of the fit-out works. No equipment or materials are permitted to be left or stored outside of the leased premises or in any common areas during fit-out.

All surplus building material is to be properly removed from the leased premises at the completion of the fit-out works. If the Tenant fails to adequately perform the cleanup, this will be undertaken by DUBAI SOUTH with the cost deducted from the Tenant's fit-out deposit.

# 8.9 Cleaning of Air Conditioning Units and Replacement of Filters

Air-conditioning will NOT be supplied to the leased premises during the fit-out works to avoid debris and contaminants entering the building's air conditioning system.

In any event, the Tenants fit-out contractor(s) must take steps to protect the air conditioning system from debris and contaminants from the fit-out works. Filters must

be supplied and fitted to each floor R/A riser and replaced at the Tenant's cost as required or on direction of DUBAI SOUTH.

#### 8.10 Toilet Facilities

Contractor personnel may only use the toilet facilities designated by DUBAI SOUTH.

No waste materials shall be discharged into toilets or hand basins. The Tenant will be liable for the cleanup and any damage caused to the existing fixtures or fittings resulting from a violation of this provision.

# 8.11 Spray Painting

Contractors must take care to ensure proper ventilation and protection of existing fixtures and fittings during any painting works. Spray painting may only be undertaken between 22:00 hours and 05:00 hours or at the weekend and contractors must utilize industrial extraction fans and ducts leading to an open space.

Spray painting may also require isolation of the fire detection system within the affected area to avoid false alarms. DUBAI SOUTH advise on whether the painting works require isolation of the fire detection system or not. If required, fit-out contractors should apply for isolation by submitting request through online PTW. DUBAI SOUTH has the right to stop any painting works if they are deemed to cause a nuisance to other tenants.

# 8.12 VAC, Electricity and Lighting

# Air Conditioning

Any modification to the air conditioning system serving the leased premises must ensure that the air conditioning system still provides comfort conditions throughout all areas. At completion of the fit-out works all commissioning data for the air-conditioning system must be provided to DUBAI SOUTH as part of the final inspection documentation (see Section 5.7).



# **Electricity Supply**

Electricity will be provided during the fit-out period on a temporary, metered basis at the Tenant's cost, from 8:30 am to 6:00 pm daily. The provision of temporary electricity may be extended outside of these working hours upon request to DUBAI SOUTH.

All electrical wiring and related equipment within the leased premises is the Tenant's responsibility. All electrical equipment must be properly earthed.

Utilization of the emergency electricity supply without DUBAI SOUTH's prior approval and direct electricity connection to the light points in the common areas is **STRICTLY PROHIBITED**. The DEWA main distribution board shall not be used without approval from them.

# Trunking

All under floor trunking work in the common areas to the leased premises will be done by a qualified electrical contractor at the tenant's expenses.

If the fit-out contractor needs to remove the existing cabling from the under floor trunking in the leased premises, the existing cabling must be returned to DUBAI SOUTH undamaged.

# Lighting

Lamps in light fittings may only be replaced using a lamp of the same size, rating and colour rendition. All light fittings must be cleaned at the completion of the fit-out works.

# 8.13 Deliveries and Loading Bay

As far as practical, all goods, equipment and materials are to be delivered via the basement using the service elevators. Access through the main entrance shall only be granted under special circumstances after approval by DUBAI SOUTH.

All delivery vehicle drivers to strictly observe the height restrictions in the basement and must obey all traffic signs, house rules, car park rules and other instructions issued by DUBAI SOUTH. It is not permitted to obstruct car parking facilities, fire escapes etc. for any loading or unloading activities.

# 8.14 Obstruction of Services

Under no circumstances are light fittings, air conditioning outlets/return air inlets and access panels to service ducts to be obstructed or covered over.

# 8.15 Partitioning to External Windows

Where an internal wall meets an external wall, the internal wall should be in line with a window mullion or column and should not prevent any window assembly from being repaired or properly cleaned.

### 8.16 Penetration of Floor Slabs etc.

Penetrations of floor slabs or fire rated partitions must be separately listed or highlighted on the Tenant's fit-out drawings to ensure these receive the proper attention and are suitably treated to prevent the spread of fire and comply with the fire regulations. Fixings to or penetration of fire rated walls around plant rooms, service cupboards and elevator shafts is strictly prohibited without DUBAI SOUTH's prior written approval.

Where structural penetrations may be required, such works may only be done with the prior written approval of DUBAI SOUTH, after the proposals have been reviewed by the structural engineer and HSE department. However, anchors for relocated ductwork, sprinklers, suspended ceilings etc may be inserted into walls, slabs and beams as required provided that such fixtures have been fully disclosed and described in the fit-out plans.

# 8.17 Shutdown of Building Systems

Shutdown of central building systems such as condenser water risers, electrical switchboards or air conditioning systems will be permitted at the discretion of DUBAI SOUTH and only when the work is essential. All shutdowns will only be permitted when adequate notice has been provided and will be strictly controlled and coordinated so as to avoid unnecessary disruption to the building and its tenants.





# 8.18 Emergency Procedures and Contact Points

The Tenant is responsible for ensuring that all employees of the Tenant and the Tenant's contractors and any other persons authorized to be within the leased premises are aware of the building's emergency evacuation procedures and cooperate with the appointed emergency control officers for the building and obey the directions of the officers with regard to both trial emergency procedures and genuine emergencies.

Tenants must provide DUBAI SOUTH with the contact details of representatives of the Tenant and also its fit-out contractor with whom DUBAI SOUTH may contact in the event of an emergency.

# 8.19 Emergency and Fire Protection Services

No alterations or changes to any emergency or fire protection equipment, whether temporary or not, may be made without DUBAI SOUTH's prior written approval. Where alteration of the emergency or fire-safety equipment has been approved this work will be carried out under the supervision of Building Fire Systems Contractor at the Tenants' cost.

Smoke detectors may be triggered by dust from fit-out works. Accordingly, the detectors must be isolated, protected and cleaned as required during the fit-out works to prevent false alarm generation. If work on the emergency or fire protection systems requires isolation or disruption of such services, this will also require online work permit application to be applied. Shutdown of the services overnight or for periods in excess of 24 hours will be at DUBAI SOUTH's discretion and only when a minimum of 3 working days' notice has been provided. The Tenant must ensure that a fire watch/supervisor is available overnight to monitor the systems and fight fires if any emergency or fire protection services cannot be reinstated that day. Same conditions apply for building fire systems shutdown to connect the new additional devices – fire fighters to be available for duration systems are unavailable. Online permits to be approved by DUBAI SOUTH Fire Safety Engineer

# 8.20 Removal of Redundant Equipment

All redundant fixtures, fittings and materials brought onto the leased premises by the Tenant or its contractors such as pipe work or electrical wiring installed in riser cupboards and/or ceiling space above must be removed and appropriately disposed of prior to completion of the fit-out works.

# 8.21 Labelling

All additional equipment, cabling and pipework installed at the leased premises must be labelled in accordance with original standards and specifications and as identified on the Tenant's "as built" drawings.

# 8.22 Security

The Tenant is responsible for the security of the leased premises. DUBAI SOUTH will assist the Tenant where possible to secure the leased premises and provide guidance and advice. However, DUBAI SOUTH will not have any liability whatsoever for the advice provided or any subsequent action taken by the Tenant.

The Tenant must install locks on those doors they wish to secure and the locks must be compatible with the master key system. The Tenant will be responsible for all keys and access passes provided by DUBAI SOUTH. If any keys or access passes are lost by the Tenant or its contractors, such loss must be promptly reported to DUBAI SOUTH and the Tenant will be liable for the cost of the replacement keys and passes.

# 8.23 Progress Inspections

DUBAI SOUTH inspectors will inspect the fit-out works periodically to ensure that the works are being carried out in accordance with the approved fit-out plans and that all health and safety rules are being followed. Such inspections will be undertaken so as not to create an inconvenience or delay the progress of the fit-out works. DUBAI SOUTH may order the fit-out contractor(s) to cease working where the work is not being conducted in accordance with the approved plans or where a serious health and safety violation is found.



# DUBAI SOUTH

# Section 9 - Health, Safety and Environment (HSE)

### 9.1 General

The fit-out contractor will be responsible for safety on site during the fit-out works and shall take all necessary steps to prevent accidents, injuries, occupational illness and property damage. For the avoidance of doubt, such responsibility includes responsibility for subcontractors and suppliers.

Fit-out contractors must comply with all applicable health and safety laws and regulations, including those dealing with labor hygiene. In addition, contractors must promptly comply with any specific instructions or directions regarding HSE matters issued by DUBAI SOUTH.

Before commencing work at the site each contractor must:

- complete and submit an HSE Plan to DUBAI SOUTH (see Section 9.2);
- submit a detailed HSE risk assessment to DUBAI SOUTH; and
- designate a qualified Safety Officer / Safety In charge who will be assigned to the site on a full-time basis.

#### 9.2 Contractor's HSE Plan

The contractor's HSE Plan must be specific to the project in question. The objective of the HSE Plan is to ensure all employees are constantly aware of their responsibility to work in a safe and healthy manner.

The HSE Plan shall ensure the involvement and active participation of all contractor employees by requiring safety training, which will promote recognition of unsafe acts, potential and actual hazards and the immediate corrective action to be taken.

#### The HSE Plan must include:

- all steps the contractor intends to take to prevent accidents;
- how the contractor intends to foster safety awareness amongst employees;
- how the contractor intends to educate employees on the location of medical equipment and other emergency equipment and their use;
- details of all key personnel of the contractor whom DUBAI SOUTH

- may contact in an emergency; and
- details of the contractor's nominated Safety Officer/safety in charge.
- Accident / incident reporting procedure

# 9.3 Safety Officer / Safety In-charge

At a minimum, the contractor's Safety Officer / Safety in-charge must be responsible for:

- ensuring employees are aware of and understand applicable emergency/accident procedures;
- organizing weekly HSE meetings with all workers operating on site;
- training workers to perform their work in a safe manner and to recognize potential and actual hazards and unsafe working practices; and
- reporting all safety related matters to DUBAI SOUTH;

The Safety Officer should be someone that is certified in First Aid and CPR.

#### 9.4 HSE Incidents

The contractor must ensure that immediate and proper first-aid and/or medical/hospital treatment will be provided for every work related injury.

All accidents and incidents occurring on site must be reported to DUBAI SOUTH, even where there is no injury involved. DUBAI SOUTH and the appropriate authorities must be informed immediately if the accident results in serious injuries or fatality.

#### 9.5 Visitors

Any person not directly involved with the on-site construction of the fit-out must first obtain permission to enter the site from DUBAI SOUTH and sign a visitor's release form. All visitors will be given an access pass which must be returned to DUBAI SOUTH prior to leaving the site.



#### 9.6 Fire Prevention

All work activities shall be conducted in accordance with the HSE Plan and in such a manner as to prevent the possibility of a fire hazard or fire.

Contractors should have in place an emergency fire procedure and this must be communicated to all employees, subcontractors and suppliers. The emergency fire procedure shall include a description of the selected fire alarm system, alarm code, reporting, immediate action instructions and evacuation plan.

The emergency fire procedure should be conspicuously displayed at site.

#### 9.7 HSE Violations

Maintaining a safe work place is the responsibility of the contractor. Failure to comply with the contractor's own HSE Plan will lead to issue (impose) HSE violation Notice with warning or stop work or Penalty.

HSE violation Notice process will be as follows:

- 1. Fit-out works by contractors:
  - ✓ Minor violation (HSE/Property/Civil/Fire) 1<sup>st</sup> Warning will be issued
  - ✓ Minor violation 2<sup>nd</sup> warning with stop work
  - $\checkmark$  Minor violation 3<sup>rd</sup> warning, stop work with Fine of AED 10,000
  - ✓ Major(Serious) violation immediate stop work with fine of AED 20, 000
- 2. Tenants' occupancy prior to approval of **Fit-out Work Completion:** (FINE IS APPLICABLE ON THE FIRST NOTICE)
  - ✓ Premises of <=1000 m2 fine of 15,000 AED
  - √ Premises of >1000 m2 3000 m2 fine of 30,000 AED
  - $\checkmark$  Premises of >3000 m2 and above − fine of 50,000 AED

In addition, DUBAI SOUTH may elect to take corrective action to remedy unsafe conditions. All costs incurred by DUBAI SOUTH in taking such corrective action will be charged to the Tenant. All fines will be addressed to the Tenants.

# 9.8 Personal Protection Equipment

All contractor personnel MUST wear a safety qualified uniform, vest with the relevant company name in Arabic/English, helmet/hard hat, work boots and ID badge on site.

Ladders, scaffolding and full body harness (as appropriate) are required for elevated operations. Ladders and scaffolding should be inspected before use and any that are missing rungs or otherwise damaged should not be used. Mobile scaffolding should be fitted with brakes and braced where required.

A protection mask must be worn when undertaking chemical spread type of construction, such as spray-paint, fire-proof covering, etc. Arc welders are also required to use an appropriate safety mask.

Goggles are required in any cutting work, and ear plugs are also required in any construction work where there may be a noise level of over 85 decibels.

# 9.9 Hot Works

Hot working such as cutting and welding is tightly controlled within the building. A hot work permit must be obtained from DUBAI SOUTH in advance of a contractor undertaking any cutting, welding or other hot work by completing and submitting form — Hot Work Permit.

When undertaking hot work, the surrounding area must be clear of flammable / combustible materials and protected by a fire blanket or similar. At least two fire extinguishers must also be kept nearby as an added precaution. A fire watch must also be maintained for at least (60) minutes after the work has been completed.

#### 9.10 HSE Permit to Work

The following DUBAI SOUTH HSE work permits shall be applied by the contractor as per nature of work:

- Night Work Permit
- Confined Space Entry Permit



# Section 10 - Reinstatement

#### 10.1 General

Reinstatement of the leased premises at expiry of the lease agreement must be accomplished as per the terms of the lease agreement. Full reinstatement is required unless otherwise specifically agreed with the Landlord. The following information is given to assist Tenants in the reinstatement work.

#### 10.2 Reinstatement Requirements

Reinstatement is defined as returning the leased premises to the original conditions present prior to the time of occupancy. In undertaking reinstatement, the Tenant is required to take the following actions (as applicable):

# Internal Partitioning

- demolish all existing dry walls, partitioning and wooden fixtures
- remove all wall paper and finishes from base building walls. Repair or replace gypsum board panels as required and provide a smooth rendered base

#### Main Entrance and Structure

- relocate and replace as required the main entrance door as per the original plans and specifications
- infill any internal stairway cut-outs as required (if repairs are required to the structural system, the Tenant must use the Landlord's nominated structural consultant and contractor)

# Ceiling Tiles And Grids

- make good and touch up ceiling tiles and grids, and to fix all ceiling tiles in the ceiling grids in accordance with the original plans and specifications
- touch up and repair any damage to the exterior curtain wall system in accordance with the original plans and specifications

### Floor

- remove all floor finishes and anchors; repair and patch as required to provide a smooth cement screed finish
- remove all cabling and wiring from under the raised floor system in the corridor

# **Light Boxes and Light Tubes**

- relocate and replace all light boxes to the original position in accordance with the original plans and specifications
- disconnect and to remove all wiring, conduits, trunking, wire/cable trays, etc. in the ceiling void
- relocate and replace any emergency or exit lights as per the original plans and specifications
- remove and demolish all additional light fittings installed and make good the areas affected

# Fire Services System

- relocate all sprinkler heads to the positions in accordance with the original plans and specifications and in compliance with the fire regulations
- remove and demolish all additional fire equipment installed and make good on the areas affected
- remove and demolish all additional sprinkler heads installed and make good the areas affected
- plug or cap all disconnected pipes to ensure no water leakage

# Air Conditioning System

- relocate all air conditioning controllers/diffusers to the positions as per the original plans and specifications
- relocate all VAV boxes to the positions as per the original plans and specifications
- remove and demolish any and all additional heating or cooling systems and make good areas affected
- return the thermostat wiring to the length and condition as per the original plans and specifications





# Electrical and Voice/Data System

 remove all electrical and voice/data equipment and installations including conduits, wiring, trunking, cable trays, etc. whether in the Tenant's space or the public corridor, meter rooms, risers, etc. And restore to the original condition in accordance with the original plans and specifications

# Plumbing and Drainage

- demolish all plumbing and drainage pipes, fittings and fixtures
- plug or cap all disconnected pipes to ensure no water leakage
- repair any penetrations in the structural slab as required (if repairs are required to the structural system, the Tenant must use the Landlord's nominated structural consultant and contractor)

#### Debris Removal

Debris must be removed as per Section 8.7

# 10.3 Final Inspection

Once the Tenant has completed the reinstatement works, a final inspection must be arranged with DUBAI SOUTH, by completing and submitting form **Fit-out Work Completion**.

# 10.4 Return of Security Deposit

If all items are agreed by DUBAI SOUTH to be satisfactorily completed, the lease security deposit will be refunded to the Tenant as per the terms of the lease agreement.





# APPENDIX A - FIT-OUT FORMS

- Fit-out Work Permit
- Application for Pre-construction HSEQ NOC (for Mobilization)
- Consultant Contractor Registration Form
- HSEQ NOC for Fit-out Works
- DUBAI SOUTH HSE Induction
- HSE Induction Undertaking
- Sample Risk Assessment
- General Work / Access Permit
- Night Shift Work Permit
- Signboard Approval Request
- Fit-out Works Completion
- Application for drainage NOC

# **ONLINE APPLICATION:**

- Apply through online work permit application for special requests such as:
  - o Shut down of building systems.
  - o All works which effects building electro-mechanical systems & fixtures.
  - o Any other exceptional or special requests.

Please contact DUBAI SOUTH for URL, username / password & training for using the online system.

DS/DC/FO-003

# DEVELOPMENT CONTROL FORMS

Architect

# FIT-OUT WORK PERMIT REQUEST



**VP – Development Control** 

Date:

DATE Building: Floor #: Office #: Tenant Name: Consultant / Interior Designer: Contractor: Start date: Completion date: Construction Timelines: REQUIRED INFORMATION AND SUBMITTALS: Consultant/Interior designer Appointment Letter from tenant and Cons./interior designer Acceptance letter (Originals) Copy of Consultant's /interior designer Trade License & DWC Reg. Contractor Appointment Letter from tenant and Contractor Acceptance letter (Originals) Copy of Contractor Trade License & DWC Reg. DWC HSEO NOC Required NOC's from local Authorities (DEWA, CD, etc if applicable) Proof of DEWA transfer Copy of Tenancy lease agreement Design Drawings (existing & proposed – A3 size), 2 Hardcopy sets signed by the tenant + 1. Soft copy (CAD & PDF) including but not limited to: Architectural Plans(showing all walls & partitions)
Furniture layout plans

• Cover-sheet showing information of project

• Colored Perspective (A3 size) Furniture layout plans Colored Perspective (A3 size) Furniture layout plans

Ceiling/false ceiling plans including MEP Services

• Structural Drawings/ Calculation (If applicable) MEP Drawings Sections Internal elevations Drawing FEE: Refundable Deposit<sup>2</sup> Submission Fee<sup>1</sup>: 1 - (AED 15 / m<sup>2</sup> of BUA. Minimum AED 2500) 2 - (Area <= 1000m² = AED 50,000 , Area <= 5000m² = AED 100,000 , Area >5000m² = AED 150,000) Total: AED Cheque payable to Dubai Aviation City Corporation **SUBMISSION DETAILS:** ☐ Initial Submission Resubmission Contact Person: Email: Mobile: Date: Signature: For Official use TRN-File: □FO -**Document Receiving** Received By Signature Remarks: ☐ Approved Approved With Comments Resubmit Reviewed By Approved By

# **HSEQ NOC FOR PRE-CONSTRUCTION ACTIVITIES**



This form must be completed and submitted to DS QHSSE department by the Contractor or Consultant prior to applying for approval of any or all of the pre-construction mentioned below.

1: GF	ENERAL INFORMATION					
	PROJECT NAME / OWNER: Plot No.:				.:	
CONS	SULTANT :					
CONT	TRACTOR:					
HSEC	NOC REQUIRED FOR: Site	Mobilization*		Sign bo	ard fix	ing Site Survey
REQL	JIRED INFORMATION : Meth	ood Statement Risk Assessment		Site lay		
SUBN	AISSION DETAILS (Fill-in as applicable	······································				
	INVESTOR / OWNER	CONSULTANT			со	NTRACTOR
Name	:	Name:	N	ame:		
Conta	ct No.	Contact No.	Co	ontact N	lo.	
Signat	ture &	Signature &	Si	gnature	<b>.</b> &	
Stam	o:	Stamp:	St	amp:		
Date:		Date:	Di	ate:		
2: DI	ECLARATION STATEMENT					
		ISE requirements shall be complied with c	on site	for com	plete a	luration of works:-
NO	DESCRIPTION		YES	NO	NA	REMARKS
1	Provisioning of First aid box.					
3	Provisioning of certified first aider(s)  Adequate numbers of fire extinguishers					
4		I be available on the site as per DS HSE				
4	requirements and adequate site superv					
5	the accident reporting procedures / pro	emergency response procedures including tocol.				
6	Site specific risk assessments and method statements are available for all activities.					
7		evated work platforms shall be provided as person available for erection, inspection &				
,	operation (competent person need to b	e certified by 3rd party)				
8	Provisioning of welfare facilities Drinking water. Toilets, Washing facilities, Rest					
9	Personnel trained in basic firefighti	ng (approved 3rd party, with practical				
	firefighting training) shall be available o  Adequate personal protective equipme	n site. nt's shall be provided to all operatives and				
10	will be ensured that PPE's are worn by t	he workers & staff during the work.			<u> </u>	
*	Provide mobilization plan on A3 sheet s office/desk location	howing locations for construction hoarding, c	onstruc	tion sigr	nboard,	satety signage plan and site
We undertake to carry out the above stated works in accordance with DS HSE, DM and other relevant International Construction Safety Standards. We are aware that we are liable for financial penalties/warning letters for failing to carry out our works in accordance to the DS HSE regulations & standards. We are also aware that in the event of DS HSE issuing Stop Work Orders or Prohibition Notices, we are bound to stop work immediately till we comply with DS HSE requirements in accordance with DS HSE Regulations & Standards.						
4: For DS HSE USE						
Received by: Application No. Date:					Date:	
Remarks:  Approved Approved with comments Resubmit						
1					K	eviewed By

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Dubai World Central Corporation Version: 2.0 / AUG-2016 / Rev: 0

**DS/DC/F-017** 

# DEVELOPMENT CONTROL FORMS

# CONSULTANT / CONTRACTOR REGISTRATION REQUEST



**DATE** Trade Name: Professional License No.: **O**Consultant Contractor Issue Date: **Expiry Date:** Activities: Address: Telephone: Fax: P O Box: **Contact Person:** Mobile No.: Email: **STAMP** REQUIRED INFORMATION AND SUBMITTALS: Copy of Professional License issued from DED √ Submission type New ORenew FEE: \_\_\_\_\_, Cheque payable to **Dubai Aviation City Corporation.** Total: AED Submission Fee\*: \_\_\_ New Renew AED 1,010/-\*\* AED 510/-\*\* Consultant AED 2,010/-\*\* AED 1,010/-\*\* Contractor For Official use only **Document Receiving:** Received By Signature Date Remarks: ☐ Approved Approved with Comments Resubmit DS Registration #: Issue Date: **Expiry Date:** Approved By VP – Development Control Date:

# **HSEQ NOC FOR FIT-OUT / MODIFICATION WORKS**



This form must be completed and submitted by the Main Contractor or Consultant for all Modification works. Fit out works & Modification works application must be made after the site has been established but before starting any site activities including removal of any existing fixtures.

1: G	1: GENERAL INFORMATION						
CLIENT:							
Loca	tion/Area :						
Proje	ect Name :	Plot Number	r:				
Repr	resentative :	Email Addre	ss:				
Mob	ile Number :	Alternate Nu	umber	•			
CON	SULTANT NAME :						
Resid	dent Engineer :						
Tele	phone Number :	Mobile Num	ber :				
РО В		Fax Number		*******			
Emai	il Address :						
Liliai				<u>-</u>			
FIT-C	OUT MAIN CONTRACTOR :						
Proje	ect Manager :						
Tele	phone Number :	Mobile Num	nber :				
P.O.	Box:	Fax Number	Fax Number :				
Fmai	il Address :						
2: D	ECLARATION STATEMENT						
We h	nereby confirm that the following DS HSE requirements	have been complied	with:-			·	
NO	DESCRIPTION		YES	NO	NA	REMARKS	
1	First aid box is available on site.						
2	Certified first aiders are available on site (Appro	ved 3rd party).					
3	3 Adequate numbers of fire extinguishers are available on site.						
4	Adequate lighting arrangements are done on the site with adequate protective covers and safe electrical connections						
Project sign board, warning signs and mandatory instruction							
5	signs, Emergency numbers are displayed on s						
locations including the main entrance.  Area (covering) fencing is provided and measures taken to							
6	prevent unauthorized access to the site.						
7	Safety Officer / Safety In-charge are available on the site as per						
DS HSE requirements and adequate site supervision is available.							
8	Basic HSE plan with accident reporting procedures are available in compliance to DS HSE requirements.						

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# **HSEQ NOC FOR FIT-OUT / MODIFICATION WORKS**



2· D	2. DECLARATION CTATEMENT						
	2: DECLARATION STATEMENT						
	We hereby confirm that the following DS HSE requirements have been complied with:						
NO	DESCRIPTION  Site specific rick assessments	and method statements are	YES	NO	NA	REMARKS	
9	available for all activities.						
	All types of fixed scaffoldings, mobile elevated work platforms						
	are as per DS HSE regulations and competent person available for erection, inspection & operation (competent person need to						
	be certified by 3rd party)						
11	Drinking water, Toilets, Washing on the site as per the requireme	facilities, Rest area are available nts of DS.					
12	Personnel trained in basic firefig	ghting (approved 3rd party, with					
	practical firefighting training) are	equipment's are available on site		-			
13		on by the workers & staff during					
13	the work.	in by the workers & stain daring					
We		ut / modification works in accord	dance	with [	S HSI	E, DM and other relevant	
:		ndards. We are aware that we are					
for fa	ailing to carry out our works in ac	cordance to the DS HSE regulatior	ns & sta	andard	ls. We	are also aware that in the	
even	t of DS HSE issuing Stop Work C	Orders or Prohibition Notices, we	are bo	ound to	o stop	work immediately till we	
com		ccordance with DS HSE Regulation	ıs & Sta	andard			
	Main Contractor	Consultant			,	Tenant / Client	
Name		Name		Name			
Conta	ct	Contact		Contact			
Signat	rure	Signature		Signat	ure		
	STAMP	STAMP				STAMP	
		<u>i</u>		L			
3: FE	E		<b>.</b>			•	
Subm	nission Fee Receive	d By: Receipt No	•			Signature	
		ent submissions. Knowledge fee of AED 10 appl	ies to eac	h transa	ction		
4: Fo	4: For DS HSE USE						
		Application No.		Date:			
Remarks:							
	_	_					
	Approved	Approved with comments		Resubmit		Resubmit	
						Reviewed By	
					_	,	
					Date:		

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# **DUBAL SOUTH HSE Induction**



DUBAI SOUTH has a strong commitment towards Health, Safety & Environmental issues at its sites and it expects all visitors, contractors, consultants and tenants to demonstrate the same level of commitment while visiting DS sites.

# Please take note of following:

- 1. All occupational health and safety rules, legislated as well as the company's health and safety rules, regulations and symbolic signs must be adhered to.
- 2. Safety shoes, hard helmet and high visibility vest are mandatory for visitors entering the construction areas. Based on the environment, additional PPE may also be required i.e. safety glasses or ear plugs, dust masks etc..
- 3. Ensure that you have saved site emergency contact number (056 7088608) and also that of your group leader. In case of any emergency contact immediately on these numbers.
- 4. Drugs, alcohol and smoking are not permitted on site.
- 5. No open fires will be made on the premises.
- 6. Pregnant ladies are not allowed on site.
- 7. All visitors must be accompanied by an escort from DS at all times during the tour.
- 8. Carry water / medicines with you if required. It is your responsibility to ensure that you are medically fit when visiting and entering any construction site and premises.
- 9. Beware of heat related problems during the summer.
- 10. Do not approach working plant or machinery unless the plant has stopped work and the operator acknowledges your presence / can see you clearly.
- 11. Do not walk or stand under suspended load.
- 12. In the event of you accessing temporary platforms / scaffolding, you are required to wear and use a full body harness.
- 13. Do not throw waste on site (e.g. paper, plastic bags etc.)
- 14. Do not use shortcuts, use the proper access and egress.
- 15. Saloon cars are not allowed in construction areas.
- 16. Stay close to your vehicles/group.
- 17. Follow speed limit on site.
- 18. You are not allowed to enter any barricaded area; excavations or walk on the inside of edge protection markers.
- 19. Do not touch any electrical wires.
- 20. Horse play is not permitted.
- 21. You are not permitted to take any photographs without obtaining written permission.
- 22. In case of an emergency or evacuation, you have to follow your site host to the nearest assembly point.

I certify that I have read and understood above mentioned HSE instructions and will comply with these.

Name :	
Company :	
Signature :	Date :

## **HSE INDUCTION**

## **EXTERNAL DECLARATION OF UNDERSTANDING & UNDERTAKING**



I, on behalf of my Organization, certify that I have read and understood the provisions of HSE Induction to Investors / Consultants / Contractors. I will ensure that similar induction shall be conducted for all staff within my Organization to be based at DUBAI SOUTH premises permanently and/or temporarily.

I will also ensure that all personnel on behalf of my Organization will adhere to following:

- ✓ All the project activities are performed in compliance with Dubai South HSE guidelines.
- ✓ All VISITORS & CONTRACTORS go through the HSE Site Induction.
- ✓ Carry necessary PPE before proceeding to the site.
- ✓ All VISITORS & CONTRACTORS follow the speed limits.
- ✓ All visitors are accompanied by a company employee / HSE officer.
- ✓ Any accident or incident happened on site shall be report to Dubai South immediately on 24 x 7 Emergency Contact Number: 056-3894088.

Name:	
Designation :	
Organization :	
	STAMP
Signature & Date	

	RISK ASSESSMENT		
•	Company Name:		
•	Description of Work :		
•	Area / Building / Office No.:	Date:	

isk	Risk Rating	٦	٦	Σ	٦	٦	٦	7
Residual Risk	Risk Score	3	4	10	ī.	3	2	2
esic	Severity	3	4	2	ū	3	2	2
	Likelihood	1	1	7	1	1	1	1
	Control Measures	Inspection of all hand tools to be carried out by the site supervisor prior to start of any activity on site. Daily inspections to be carried out by the operatives prior to start of day job and report the damaged tools to supervisor. Use proper PPE. Damaged tools to be removed from site immediately. No makeshift tools to be used.	Pre use visual inspection for damage/defects to tools, cables, plugs - defective tools to be taken out of use immediately. Training to be provided to all operatives using the power tools. No repair to damaged tools shall be carried out on site.	Erection of scaffolds / mobile tower shall be done by 3 <sup>rd</sup> party trained / certified scaffolders only. Tools lanyards to be provided to operatives working at height. Proper housekeeping shall be maintained above and beL the work platforms. Full body harness shall be worn at all times while working at height. 3 <sup>rd</sup> party certified MEWPs shall be used and only trained operators shall be allowed to operate. No erection of elevated platforms on loose soil or uneven surface. Weather conditions to be monitored while working outdoors.	Site electricity to be distributed by means of proper DB which shall be fitted with ELCB. Cables to be routed away from aisles and walkways. Exposed cables shall be protected properly. No damaged cables or cables with joints will be used on site. No domestic sockets to be used on site. Only industrial sockets shall be used.	Proper lifting techniques to be adopted by all operatives who are involved in manual handling through tool box talks. Site logistic plan to be established for material movement on site. Proper storage areas to be arranged to avoid any random storage on site. Site supervisor to ensure that exit routes are always kept clear.	Use safety goggles, hand gloves, mask etc. while doing the paining job. Area to be kept ventilated. All flammable material to be used in controlled manner.	Continuous housekeeping shall be maintained at all times. No unwanted / extra material to be kept on site. Controlled issuance of flammable material for site to be ensured. Adequate firefighting arrangement shall be ensured.
50	Risk Rating	Σ	Σ	Ξ	Ξ	Σ	н	I
Risk Rating	Risk Score	6	12	20	20	6	15	15
Risk	Severity	3	4	5	r.	ю	2	2
	Likelihood	3	3	4	4	3	3	3
	Risk	Personal injuries to operatives Hand injuries , cuts, bruises, eye injuries, other bodily injuries	Personal injuries to operatives.  Electric shock, burns, bruises, eye injuries, other bodily injuries, Fire risk due to damaged tools with exposed cables / short circuit.	Personal injuries / fatality due to fall from height. Injuries to others due to falling objects / tools from height. Collapse to elevated work platforms due to uneven surface.	Fire risk due to short circuit, personal injuries to operatives due to tripping, cable damages due to lying unorganized on floor.	Back injuries due lifting of heavy material. Storage material blocking the emergency exits. Slip, trip, falling hazards.	Operatives getting paint splashed into their eyes. Health issues due to fumes inhalation. Risk of fire.	Personal injuries to due slipping, tripping and falls. Presence of unwanted material increases the risk of fire.
Hazard		Using unsafe / damaged / worn out hand tools	Using unsafe / damaged / worn out power tools	Using ladders, scaffolds / mobile towers, MEWPs	Overloaded sockets, trailing cables, tripping hazard	8. Heavy, unstable loads, unorganized storage.	Splash back, fumes, flammable substance	Slip. Trip, falling hazards, Fire hazard
	Activity	Hand tools	Power tools	Working at height	Site temporary electricity	Material Handling & Storage	Painting	Housekeeping
No.			2		4	2	9	7

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Company Name:	Description of Work :	Area / Building / Office No.:
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5	
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	l

Date:

	Risk Rating				Σ
<b>Residual Risk</b>	Risk Score	1 2	1 2	1 2	10 N
dual	Severity Bisk Seere				5 1
Resi		ī.	ī.		
	Likelihood	1		1	t 5
	Control Measures	Strict instructions to all operatives during tool box talks about importance of fire alarm and life safety system devices.	Strict coordination with building maintenance department / landlord through work permits system in case any isolation / shut down of building life safety systems is required. Certified/trained fire fighters shall be provided for the duration of system shutdown.	L Site to be secured at all times. No unauthorized access allowed on site.	Permit to work system to be put in place to ensure control over hot works. All hot work permit requests shall be submitted to DWC for approval at least 24 hours prior to the planned works on site.
ng	Risk Rating	Σ	エ	7	
<b>Risk Rating</b>	Risk Score	15	20	6	20
Risk	Severity	5	rv	3	J.
	Likelihood	3	4	3	4
	Risk	Panic among building occupants. Flooding due to activation of firefighting devices by misuse of fire alarm devices.	Undetected fire due to covering fire alarm devices. Inability to fight the fire due to absence of secondary / manual fire watch & firefighting arrangement.	Theft of material, arson	Personal injuries, fatality, property damage due to fire.
	Hazard	False alarm , automatic fire fighting system activation	Isolation of Fire alarm / Sprinkler system without approval/ work permit from DWC	In-secured site , material Uncontrolled personnel access	Hot works, open flames, sparks
	Activity	Fire alarm Mishandling	Modification of Fire alarm / Firefighting System due to revised layouts	Site Security	Welding, cutting, grinding works
No.		8 Fir Mc 9 ala		10	11

RISK RATING(R) = LIKELIHOOD	COOHI.			SEVERITY (S)		
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EVROSTIBE (1)	3	15 - H	12 - M	M - 6	M - 9	3-1
EAPUSURE (L)	2	10 - M	8 - M	M - 9	4 - L	2 - L
	1	1-9	4 - L	3-1	2 - L	1-L
		T: puegend: L	.egend : L = Low, M = Medium, H = High	n, H = High		

# Submitted By:

Company Stamp
Date
Signature
Name

## **GENERAL WORKS / ACCESS PERMIT**



Please complete this application and submit it with required attachment(s) to DS, QHSSE department.

A: GENERAL INFORI	MATION			
APPLICANT NAME:		COMPANY:		
I apply for a Permit	to Work in respect of the following v	work: -	•	
PROJECT DETAILS:				
LOCATION:				
SCOPE OF WORKS:				
	-			
Start Date & Time:		Finish Date & Time:		
REQUIRED ATTACHM	ENTS			
1) Risk Assessment 2) Method Statement 3) Safety Induction Record 4) Copies of Related 3 <sup>rd</sup> Pa	d arty test Certificates			
NAME OF OPERATIVE	:S	LIST OF TOOLS, EQUIF	PMENT & MATERIAL	
THE SIGNIFICANT RISKS ANTICIPATED ARE: FOLLOWI			CONTROLS SHALL BE IMPLEMENTED:	
DECLARATION:				
<ul> <li>✓ I confirm that I have understood the DS safety rules and the restrictions they place on my work.</li> <li>✓ I also confirm that my work will be carried out in accordance with the best current trade practices and that all appropriate health and safety controls will be observed.</li> <li>✓ I confirm to use all the PPE with regard to work and understand the requirements.</li> </ul>				
COMPANY NAME:			STAMP	
CONTACT PERSON:				
CONTACT NO.:	SIGNATURE :		DATE:	
B: FOR OFFICIAL US	E ONLY	PERMIT #.		
RECEIVED BY:		DATE & SIGN :		
APPROVAL STATUS		Comments:		
☐ APPROVED ☐ APPROVED WITH ☐ RESUBMIT <sup>3</sup> REVIEWED BY:	COMMENTS	and assumed in the	he scope of work or the circumstances detailed his permit automatically revoke the permit. Such	
SIGNATURE & DATE :			notified to the facility owner immediately.  not authorize "HOT WORK" for which a separate	
SIGNATURE & DATE.		permit is required		

DWC-HSE-F-026, Rev. 2, Feb 2016 Page 1 of 1

## **NIGHT SHIFT – WORK PERMIT**

propos		Application r	nd submitted by the Main Contracto nust be made after meeting DS -QI 0 hrs.				
A. PR	ROJECT DETAILS						
Projec	ct Name		Plot N	lo.:			
Contra	actor		Consulta				
Client							
	employees.						
	Shift Responsible	Name:	Conta	ct No:			
_	n (Safety)	Name.	Conta	ct No.			
	Shift Duration	From (Date):	Valid	till·			
B. LIS	ST ACTIVITIES TO BE	CARRIED OU	Т				
1.		2.	3.	4.			
5.		6.	7.	8.			
0 00	ONTO A CTORIC CON	DUIANCE CTAT					
	ONTRACTOR'S COM		SEQ requirements shall be complied w	i+h·			
	Statement Descript		SEQ requirements shall be complied w	1011.	Yes	No	NA
			ight activities. Responsible engineer no	and to be available	162	NO	IVA
	on site with the aut			eed to be available			
							-
			sment is available at site. *				-
			for night shift activities. *	activities *			-
			ished and implemented for night shift				
			e with valid SARS card / NEBOSH / IOS				
			e fitted with adequate light's with bac	k-up power. **			
			are available for night shift activities.				
		·	ement is available for night.	unication facilities			
			ninated for the night shift with comme t shift and evidence of its communica				
	available on site.	ogram for nign	t shift and evidence of its communica	tion to workforce is			
		o available as	per the DS/DM requirements.				
	Lifting plan prepare						
			am is available at site. *				-
-			t is available at site.	activities *			_
	•	_	activities in accordance with DS/DM and				
			e liable for financial penalties/warning let ndards. We are also aware that in the e				
			nediately in accordance with DS Regulation		<i>(</i>	зтор	WOIK
-	Main	Contractor	<del></del>	Consultant / Client			-
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	_	any stamp	anage. a Hame & Ji	company stamp	PC. 301	. ~	
* Provi	ide document proof a		this application. ** Provide lighting	layout plan with LUX lev	els at v	vork c	ireas.
D. DS	S QHSSE APPROVAL						
	Approved		ame :	Signature :			
	Not Approved						
	I DIOT AMMENDICAL	1 D	ate:	Contact No. :			

DWC-HSE-F-050, Rev. 1, Jan. 2015 Page 1 of 1

This permit does not authorize "HOT WORK" for which a separate permit is required.

**Dubai World Central Corporation** Version: 2.0 / AUG-2016 / Rev: 0

**DS/DC/F-025** 

## **DEVELOPMENT CONTROL FORMS**

4

Reviewed By

Architect

## PERMANENT SIGNBOARD **APPROVAL REQUEST**



**DATE** Plot No: Facility Name: **REQUIRED INFORMATION AND SUBMITTALS:** Copy of Owner's trade license. Signboard Drawings (2 hardcopy + 1 DWG, format set). Drawing to show the dimensions of signboard in relation with the building elevation. Copy of 3rd party fitness certificate for MEWPs / scaffold (more than 10m height) & Scaffolder's training certificate. Method Statement & Risk Assessment for signboard fixing. Contact Person: Email: Mobile: Signature: For Official use only TRN-File:□DLC □RC □AC □EC □GC Document Receiving Received By Signature APPROVAL CHECKLIST Description Remarks No **CONTENTS** 1.1 DWC FZ LICS / Legality 1.2 No personal contents 1.3 Religious / Sectarian / Racist / Immodesty 1.4 No ads / No marketing messages SIZE 5-10% from the elevation area 2.1 2.2 Harmonic 3 COLOR 3.1 Corporate ID DWC color theme 3.2 Pick & match REFLECTION AND MATERAL 4.1 No self-illumination 4.2 No reflected material 3D letters / indirect lighting LOCATION 5.1 No roof signage Flight safety / DCAA compliance Additional Comments: Approved ☐ Approved with Comments Resubmit Signature

Reviewed By

Snr. Engineer - Civil

Approved By

**VP - Development Control** 

Date:

## NOC REQUEST FORM FOR DRAINAGE OF OFFICES, FITOUT WORKS OR BLD REFURBISHMENT



BLD Title/District				roject ame		
Stage/s	Informative/	Informative / Construction Excavation				
completed:	Design NOC	NOC 🗆	NOC		Inspection	
Contact Details						
Owner / Owner Rep	resentative Name			actor Name		
Contact Person Nam				ct Person N	ame:	
Direct No:			Direct			•••••••
Fax/ Mobile No/ P.0			Fax/	Mobile No/	P.O Box / E	-Mail
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					•••••	
Applicant name						
Contact (Tel/Mobile/Email):						
Project Design Det	ails					
Type Of Building: Office □ Restaurant □ Other □						
Other/ Specify (						
BU Area (m² )Plan No of rooms No. of persons using the facility No. of toilets provided No of Pantries						
No of drainage conr	lections required	for both WW+S	P)			
No of existing drain						
No. fixtures						
Is there any Potable	water tank? YES	/NO If y	es wha	t is the size	e (	imp Gallons)
If restaurant:						
how many s	eats	••••••				
How much t	the size of the gre	ease interceptor	••••	•••••	litres	
Final connection slope provided						
Expected date of completion of						
building						
Signature	9			Signatu	ıre	
FOR DS -UIM	Use Only					
Application Rece	ived On:	Receive	ed By (1	Name & Sig)	:	••••••
Application Received On:						

## NOC REQUEST FORM FOR DRAINAGE OF OFFICES, FITOUT WORKS OR BLD REFURBISHMENT



	Consultant's Stamp & Signature with date		Contractor's Stamp & Signature with Date
	<del>'</del>		
Status of NO	OC:   Approved	□ Rejected	☐ Pending
Comments			
Date Approv	ved		
Engineer In	charge		
Manager of	Infrastructure section		
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Specify Attac	hments with the Application		
	layout drawings ( A@ size) with cont	ent in one CD softcopy	
☐ Plumbing	details		
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Sign	ature	-	Signature
FOR DS	-UIM Use Only		
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NOC receive	ed on	Received By (Name	e & Sig):

Dubai World Central Corporation Version: 2.0 / AUG-2016 / Rev: 0

DS/DC/FO-004

## DEVELOPMENT CONTROL FORMS

## FIT-OUT WORK COMPLETION



DATE Building: Floor #: Office #: Tenant Name: Consultant / Interior Designer: Contractor: REQUIRED INFORMATION AND SUBMITTALS: Compliance Certificate from Consultant/interior designer(Original) Compliance Certificate from Etisalat for Telecommunication (If applicable) Compliance certificate for Civil defense, DEWA or other local Authorities (if Applicable) Testing and Commissioning reports, O&M Manuals (if Applicable). Copy of As built Drawings & specification (Scanned copy with stamp) Compliance Certificate from Tenant (Original) NOC for Sewerage and Drainage (if Applicable) FEE: Submission Fee: AED Cheque payable to Dubai Aviation City Corporation **SUBMISSION DETAILS:** ☐ Initial Submission Resubmission Contact Person: Email: Mobile: Date: Signature: For Official use TRN-File: □FO -**Document Receiving** Date Received By Signature Remarks: Note: Final approval subject to successful completion of HSE site inspection. ☐ Approved ☐ Approved With Comments Resubmit

Reviewed By

Architect

STAMP

Approved By
VP – Development Control
Date :

## **TENANT FIT-OUT MANUAL**



**APPENDIX B – JCI – FCU Controller Specifications** 

## TEC2645-2 BACnet® MS/TP Networked Thermostat with Single Proportional Output and One-Speed Fan Control

**Product Bulletin** 

Code No. LIT-12011113 Issued February 5, 2007 Supersedes January 11, 2006

The TEC2645-2 Thermostat is a BACnet® Master-Slave/Token-Passing (MS/TP) networked device that provides control of two-pipe fan coils, cabinet unit heaters, or other equipment using a proportional 0 to 10 VDC control input and one-speed fan control. The technologically advanced TEC2645-2 Thermostat features a Building Automation System (BAS) BACnet MS/TP communication capability that enables remote monitoring and programmability for efficient space temperature control.

The TEC2645-2 Thermostat features an intuitive user interface with backlit display that makes setup and operation quick and easy. The thermostat also employs a unique, Proportional-Integral (PI) control algorithm that virtually eliminates temperature offset associated with traditional, differential-based thermostats.



Figure 1: TEC2645-2 BACnet MS/TP Networked Thermostat with Single Proportional Output and One-Speed Fan Control

Table 1: Features and Benefits

Features	Benefits
BACnet MS/TP Communication	Provides compatibility with a proven communication network; BACnet MS/TP is widely accepted by Heating, Ventilating, and Air Conditioning (HVAC) control suppliers
Backlit Liquid Crystal Display (LCD)	Offers real-time control status of the environment in easy-to-read, plain text messages with constant backlight that brightens during user interaction
Proportional 0 to 10 VDC Control	Offers additional application flexibility by providing more advanced control signals
Override Interface Key	Allows easy access for temporarily overriding the unoccupied mode
Simplified Setpoint Adjustment	Enables the user to change the setpoint by simply pressing the <b>UP/DOWN</b> arrow keys
Two Configurable Binary Inputs	Provide additional inputs for advanced functions such as remote night setback, service or filter alarms, motion detector, and window status
Over 20 Configurable Parameters	Enable the thermostat to adapt to any application, allowing installer parameter access without opening the thermostat cover

#### **Product Overview**

The TEC2645-2 Thermostat is specifically designed for networked control of common two-pipe heating and cooling equipment using a proportional control input. In addition to superior temperature control and application flexibility, the TEC2645-2 features BACnet MS/TP communication capability, allowing the user to view operation or make adjustments from a remote workstation. Plain text menus, backlit display, and five interface keys make setup and operation quick and easy.

**IMPORTANT:** The TEC2645-2 Thermostat is intended to provide an input to equipment under normal operating conditions. Where failure or malfunction of the thermostat could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the control system. Incorporate and maintain other devices such as supervisory or alarm systems or safety or limit controls intended to warn of, or protect against, failure or malfunction of the thermostat.

## **Additional Features**

The TEC2645-2 Thermostat offers many other features, including:

Adjustable Heating/Cooling Deadband
 Adjusts the minimum heating/cooling deadband from 2.0F°/1.0C° to 5.0F°/2.5C°.

#### Five Easy-to-Use Interface Keys

Allow for easy commissioning of the thermostat, and eliminate the need for DIP switches.

### Six Levels of Keypad Lockout

Provide six levels of keypad lockout that can be set up through the Installer Configuration Menu.

### **Accessible Configuration Parameters**

Allow local access to all configurable parameters while limiting unwanted parameter tampering once the thermostat is set up.

## Three Light-Emitting Diodes (LEDs)

Provide fan, heating, and cooling status at a glance.

## Adjustable Temporary Occupancy Time

Adjusts the temporary occupancy time from 0 to 24 hours.

### Auxiliary Contact

Provides 24 VAC control for reheat, lighting, and other auxiliary functions.

### Nonvolatile Electrically Erasable Programmable Read-Only Memory (EEPROM)

Prevents loss of adjusted parameters during a power failure.

#### Remote Access

Allows the user to read/write and access the parameters of the thermostat via a supervisory controller.

**Table 2: Thermostat Models** 

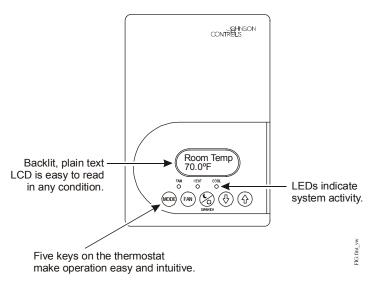
Code Number	Description	Applications
TEC2645-2	Networked BACnet MS/TP, Two-Pipe, Proportional 0 to 10 VDC Control Output, and One-Speed Fan Control Thermostat	Control of Two-Pipe Fan Coils, Cabinet Unit Heaters, or Other Equipment Using a Proportional 0 to 10 VDC Control Input and One-Speed Fan Control

Table 3: Accessories (Order Separately)

Code Number	Description
TE-636M-1 <sup>1</sup>	Duct Mount Air Temperature Sensor
SEN-600-4 <sup>2</sup>	Remote Indoor Air Temperature Sensor with Occupancy Override and LED
TE-636S-1	Strap-Mount Temperature Sensor
MS-BACEOL-0	RS485 End-of-Line Terminator

Additional TE-636xx-x Series 10k ohm Johnson Controls Type II Thermistor Sensors are available; refer to the TE-6300 Series Temperature Sensors Product Bulletin (LIT-216320) for more details.

<sup>2.</sup> Only the occupancy override function can be accomplished using the SEN-600-4 with the TEC2645-2.



**Figure 2: Front Cover of Thermostat** 

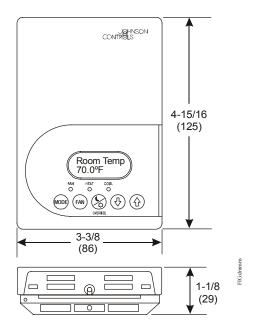


Figure 3: Thermostat Dimensions, in. (mm)

## **Thermostat User Interface Keys**

The TEC2645-2 Thermostat user interface consists of five keys on the front cover (as illustrated in Figure 2). The function of each key is as follows:

- MODE key toggles among the system modes available, as defined by selecting the appropriate operation sequence in the Installer Configuration Menu (for example Off, Heat, Cool, Auto).
- FAN key toggles between ON and AUTO for fan control. ON energizes the fan all the time and AUTO operates the fan only on a call for heating or cooling, for both occupied and unoccupied periods.
- OVERRIDE key overrides the unoccupied mode to occupied at the local user interface for the specified TOccTime. (TOccTime is defined by selecting the appropriate time period in the Installer Configuration Menu.) The OVERRIDE key also allows access to the Installer Configuration Menu. (See the Installer Configuration Menu section.)

**Note:** If one of the binary inputs is configured to operate as a remote override contact, this **OVERRIDE** key is disabled.

- The Installer Configuration Menu is accessed by pressing and holding the OVERRIDE key for approximately 8 seconds. Once the Installer Configuration Menu begins, release and press the OVERRIDE key to scroll through the Installer Configuration Menu options.
- **UP/DOWN** arrow keys change the configuration parameters and activate a setpoint adjustment.

## **Backlit Liquid Crystal Display (LCD)**

The TEC2645-2 Thermostat includes a 2-line, 8-character backlit display. Low-level backlighting is present during normal operation, and it brightens when any user interface key is pressed. The backlight returns to low level when the thermostat is left unattended for 45 seconds.

## **Light-Emitting Diodes (LEDs)**

Three LEDs are included to indicate the fan status, call for heat, or call for cooling:

- The FAN LED is on when the fan is on.
- The **HEAT** LED is on when heating or reheat is on.
- The COOL LED is on when cooling is on.

#### Menu Overview

There are two menus available to view and configure the TEC2645-2 Thermostat:

- Status Display Menu
- Installer Configuration Menu

The following sections outline the functions and contents of each menu.

#### Status Display Menu

The Status Display Menu is displayed during normal thermostat operation. This menu continuously scrolls through the following parameters:

- Room Temperature
- System Mode
- Occupancy Status (Occupied/Unoccupied/Override)
- Applicable Alarms The backlight lights up as an alarm condition is displayed.

**Note:** An option is available within the Installer Configuration Menu to lock out the scrolling display and show only the Room Temperature parameter.

## Installer Configuration Menu

The Installer Configuration Menu is used to set up the thermostat for an application-specific operation. To access the menu, press and hold the center key for approximately 8 seconds.

The Installer Configuration Menu includes the following parameters that are accessed by pressing the same center key:

- MS/TP Communication Address
- BI1 and BI2 Input Configuration
- UI3 Input Configuration to Locally Monitor Supply Air Temperature or Hot/Cold Water Changeover Switching
- Menu Scroll
- Auto Mode
- °F and °C Temperature Scales
- Six Keypad Lockout Levels
- Sequence of Operation
- Unoccupied Heating Setpoint/Unoccupied Cooling Setpoint
- Maximum Heating Setpoint/Minimum Cooling Setpoint

- Setpoint Type
- Temporary Occupancy Time
- · Door Open Time
- · Heating/Cooling Deadband
- Room Air Temperature Calibration
- · Auxiliary Configuration
- Direct/Reverse Acting
- · Reheat Time

## Repair Information

If the TEC2645-2 Thermostat fails to operate within its specifications, refer to the TEC2645-2 BACnet MS/TP Networked Thermostat with Single Proportional Output and One-Speed Fan Control Installation Instructions (Part No. 24-9890-226) for troubleshooting details. For a replacement thermostat, contact the nearest Johnson Controls® representative.

## **Technical Specifications**

## TEC2645-2 BACnet MS/TP Networked Thermostat with Single Proportional Output and One-Speed Fan Control (Part 1 of 2)

Power Requirements		19 to 30 VAC, 50/60 Hz, 2 VA (Terminals 4 and 5) at 24 VAC Nominal, Class 2 or Safety Extra-Low Voltage (SELV)	
Analog Output Rating		0 to 10 VDC into 2k ohm Resistance (Minimum)	
Fan Relay Output Rating		30 VAC, 1.0 A Maximum, 15 mA Minimum, 3.0 A In-Rush, Class 2 or SELV	
Auxiliary Output Rating	Triac Output	30 VAC, 1.0 A Maximum, 3.0 A In-Rush	
Digital Inputs		Voltage-Free Contacts across Terminal Scom to Terminals BI1, BI2, or UI3	
Wire Size		18 AWG (1.0 mm Diameter) Maximum, 22 AWG (0.6 mm Diameter) Recommended	
BACnet Standard		32 Devices Maximum; 4,000 ft Maximum	
Temperature Sensor Type		Local 10k ohm Negative Temperature Coefficient (NTC) Thermistor	
Resolution		±0.2F°/±0.1C°	
Accuracy		±0.9F°/±0.5C° at 70.0°F/21.0°C Typical Calibrated	
Temperature Range	Backlit Display	-40.0°F/-40.0°C to 122.0°F/50.0°C	
	Heating Control	40.0°F/4.5°C to 90.0°F/32.0°C in 0.5° Increments	
	Cooling Control	54.0°F/12.0°C to 100.0°F/38.0°C in 0.5° Increments	
Minimum Deadband		2F°/1C° between Heating and Cooling	
Ambient	Operating	32 to 122°F (0 to 50°C); 95% RH Maximum, Noncondensing	
Conditions	Storage	-22 to 122°F (-30 to 50°C); 95% RH Maximum, Noncondensing	

## TEC2645-2 BACnet MS/TP Networked Thermostat with Single Proportional Output and One-Speed Fan Control (Part 2 of 2)

Compliance United States		UL Listed, File E27734, CCN XAPX, Under UL 873, Temperature Indicating and Regulating Equipment
		FCC Compliant to CFR 47, Part 15, Subpart B, Class A
	Canada	UL Listed, File E27734, CCN XAPX7, Under CSA C22.2 No. 24, Temperature Indicating and Regulating Equipment
		Industry Canada, ICES-003
	European Union	CE Mark, EMC Directive 89/336/EEC
	Australia and New Zealand	C-Tick Mark, Australia/NZ Emissions Compliant
Shipping Weight		0.75 lb (0.34 kg)

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

#### **United States Emissions Compliance:**

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

#### Canadian Emissions Compliance:

This Class (A) digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la Classe (A) respecte toutes les exigences du Règlement sur le matériel brouiller du Canada.



Controls Group 507 E. Michigan Street Milwaukee, WI 53202

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TEC2645-2 BACnet® MS/TP Networked Thermostat with Single Proportional Output and One-Speed Fan Control Product Bulletin

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