



TOP



vogue

QUALIFICATION DOCUMENT / COMPANY PROFILE

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1.0 INTRODUCTION

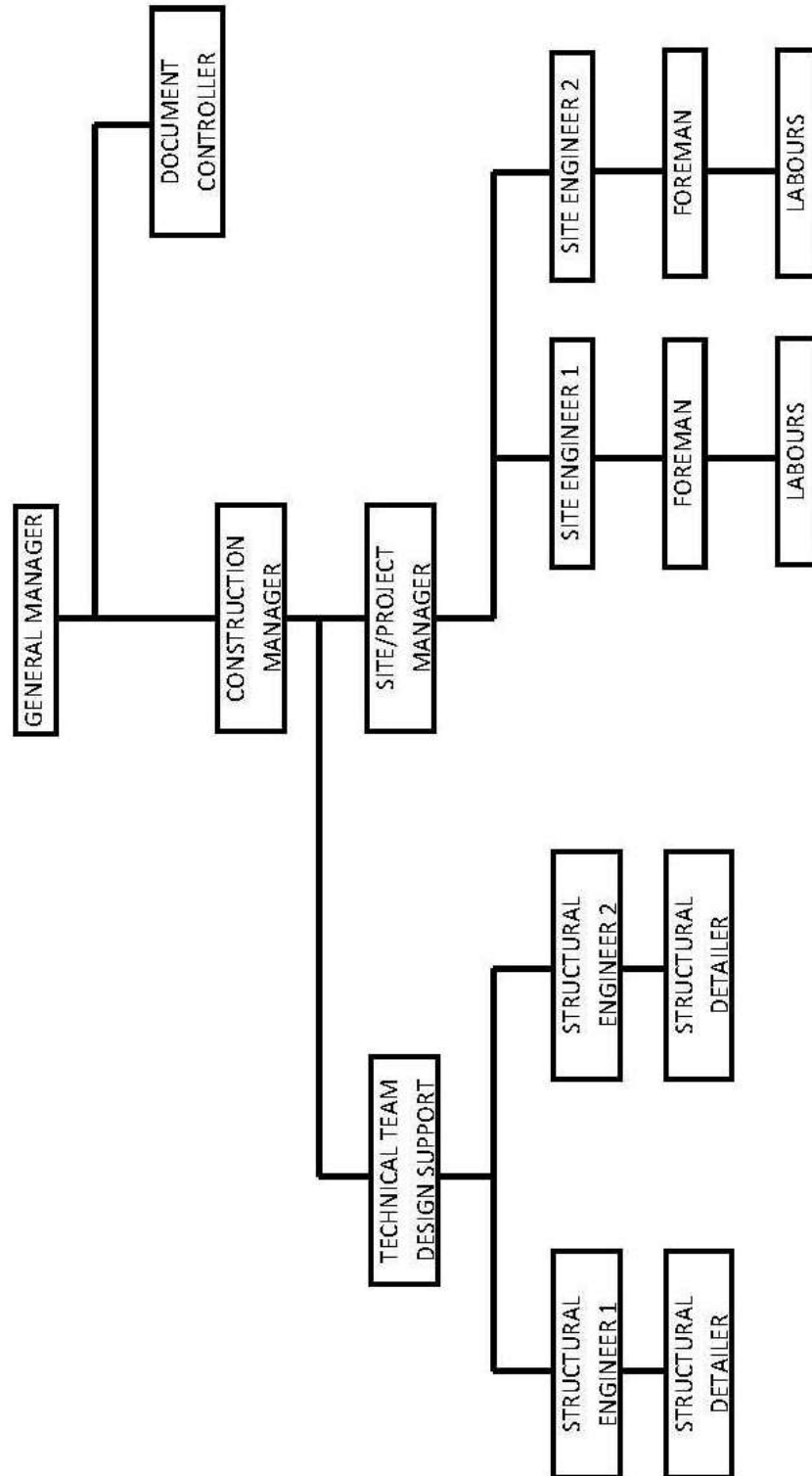
We have the pleasure to introduce ourselves as one of the Engineering and Construction firms in the middle-east, specializing in providing a wide range of **structural design services** as well as management of **steel and timber works supply, fabrication and erection** for the construction industry including office/shop fit-out.

Top Vogue Design and Contracting Company is registered at the Ministry of Municipal Affairs Urban Planning and Development Authority and Qatar Chamber of Commerce and Industry. Foreseeing Qatar's requisite for innovative modern structural design, Top Vogue is competitive among its competitors in satisfying a wide range of Clients by producing exclusive tailor made design concepts to meet individual Client requirements as well as on-track record on completion of construction works. Our services cover the design, supply, fabrication, erection and supervision of a variety of commercial mezzanines and shops, bridges, sports facilities, warehouses, steel structures, etc. Top Vogue provide support to clients and the construction industry by providing them value engineering and technical support services inclusive of Glass/Façade/Skylights/Balustrade/Canopy design, Stone, GRP & Aluminium cladding design, timber and wood design, preparation of shop drawings, pipe stress analysis, bar bending schedules, fabrication drawings and shop drawings. In addition, we are providing on time construction services like office/shop fit-out, steel supply, fabrication, and erection for many local companies for their prestigious projects in Qatar.

The Management team headed by the General Manager, Arwa Al Slehat, develops business opportunities, coordinates and assures that the best services are provided to our esteemed clients. She is backed up by teams of Grade A Structural Engineers, Civil Engineers, Project Managers, Project Engineers and Contracts Engineers. Top Vogue has devised a corporate management and administrative structure, adopting a rigorous strategy to develop and improve the company. This is done by implementing a Quality management system and by in-house training, continuously using state of the art techniques and methods to transfer experience to junior staff to be able to serve a wide range of clients whose needs vary from the simplest structure to the most specialized design.

2.0 ORGANIZATIONAL CHART

ORGANIZATIONAL CHART



3.0 STAFF SUMMARY LIST

SN	CATEGORY	NOS.
01	General Manager	1
02	Business Development Manager	1
03	Construction Manager	2
04	Site Engineer	4
05	Structural Engineer	3
06	Structural Detailer	8
07	Project Coordinator	1
08	Human Resources Department	2
09	Finance Department	1
10	IT/Programmer/Computer Technician	1
11	Maintenance	1
12	Document Controller	2
13	Secretary	1
14	Driver/Messenger/Office Assistant	1
15	Welders/ Technicians	5
16	Labours	30

4.0 KEY PERSONNEL QUALIFICATIONS

AL SLEHAT, ARWA Y

Personal Particulars:

Profession: Senior Design Engineer
Place of Birth: Amman - Jordan
Nationality: Jordanian

Qualification and Experience:

EDUCATION:

- Bachelor of Civil Engineering, Project Management
- University Jordan. Amman Jordan

Engineering Registration card In Qatar:

Grade "A" designer "STRUCTURAL DESIGN"
Registration n: 5268

Career details:

1.0) OWNER OF TOP VOGUE DESIGN AND CONTRACTING (2010 till Present)

Fit Out, Design And Steel Structure Company, Doha Qatar.
Projects:

Projects (Structural Design):

- Hassad Food Company Store - Doha, Qatar
- Aristocrazy Lagoona - Doha, Qatar
- Dolce & Gabbana - Doha, Qatar
- Industrial Area warehouse - Doha, Qatar
- Wukair Warehouse - Doha, Qatar
- Ooredoo Warehouse - Doha, Qatar
- Explora Company, Labor Camp - Al Zubara Doha, Qatar
- Labor Camp at Seiliya Doha, Qatar
- Ooredoo Tower Al Dafna - Doha, Qatar
- Flik Cinemas West Bay - Doha , Qatar
- Vip Clinic Gate Mall - Doha, Qatar
- Uno Chicago Grill, Mall Of Qatar
- Al Salam Store , Mall Of Qatar

Projects (Interior Fit Out):

- Mr. Shawarma Al Wakra - Doha, Qatar
- Mr. Shawarma Musheireb - Doha, Qatar
- Mr. Shawarma Al Gharrafa - Doha, Qatar
- Baskin Robins , Messeid - Doha, Qatar

2.0 MZ & Partners (Architectural & Engineering Consultancy, Doha, Qatar) **Position: Lead Design Engineer – 2004 - 2017**

Responsible for design, preparation of structural drawings and construction review including site visits, applying computer software in the design calculation, supervising Junior Engineers and Draftsmen and coordinating with Architectural and MEP Engineers.

Projects:

- Mozoon Towers A, B, C, D
- Construction Of CP07-A-1-A Waterfront Commercial-Seeif Lusail Infrastructure Works South -Tower Crane
- Design & Build Marina Yacht Club at Lusail
- 4 New Schools At Doha - Phase 2_Precast Boundary Wall
- Al Bidda Tower - 40th & 41st Floors Structural Design & Supervision Service
- ECS For Waste Management Facility Ras Laffan Industrial
- Doha Mall (B+G+1+P) - Structural Engineering Services
- T.J. Pearl Mansion
- Msheireb Downtown Doha Phase 1, Phase 2 and Phase 3 – Verification of various structures and elements
- Rawdat Rasheed Road – Design Verification of Road Light Foundations
- Construction of (4) New Schools around Doha & Villages of (56) New Schools at Al – Kaaban
- Traffic Control Center - IFC Project
- Workers Hospital in Mesaieed
- Al Wajba Palace – GRC Ceiling
- Construction of CP07- C- 1B commercial Bldg. with Road D3, A4, Internal Roads, Utilities & Underground Car Park 2, 3, 4 & 5
- Pearl Mansion Al Dana
- Arab Center for Research and Policy Studies – Phase 1 & 21D
- G+ 3 Labour Accomadation and Store for Marbu at Industrial Area – Steel Design
- New Villa @ Rayyan – Majilis Extension and Moundary Wall Design Calculation
- Girls School at Al-Kaaban – 1 - Tower crane foundation
- Al Muntazah Health Care – Structural Design check for the stability of blockwall
- General Electric Advance Technology & Research Center Podium fit out works, hanging partitions –design check
- Viva Bahriya 19 – Precast Cladding
- Lagoona Mall – Shops and Miscellaneous Structure
- Mshereib Properties P16 Hotel - Structural Design
- Qatar Integrated Railways (Design+Build) Package 2 Al Matar D-Ring Station-Precast Boundary Wall
- 4 Towers Crane Foundation For New Port - Structural Design Report
- West Bay Lagoon Plaza – Doha, Qatar (The Mall)
- Al Misnad Tower (30 storey tower +3B+G+M)
- Equestrian Club (Multi Purpose Hall & Club House)

- Diwan Emiri – Renovation (Souq waqef Restaurant & Hotel Renovation)
- 130 Villas (QBEC) (Club House)
- Al Mana Complex
- 67 Villas (Shk Hamad Bin Jassim) (Club House + other service Buildings)
- 6 Villas Compound West Bay (V.I.P) Compound
- Al Sadd Office Tower (HBK) (20 storey building + 3B+G+M)
- Warehouses for (Factories, Industrial Building)
- Samrya Office (Twin Tower) (44 Storey Building + 2B+G+M)
- Transworld Tower 28 Storey Building + 2B+G+M
- GTL (Participate on a Steel Design)
- Bilal Studio (16 Storey Building + 2B+G+M)
- Nissan Showroom (Al Mana Consulting)
- Hamad Bin Jassim Tower
- Warehouse of Vos Logistic
- Midmac Office Building
- 12 Villa Compound
- QREIC (Office Building)
- Quarantine Building @ Abu Samra
- Steel Mezanines on Pearl
- QIB Building (2B+G+14)
- Navigation Tower (Concrete Design of the Multi Storey parking)
- Al-Muntazah Commercial Building (3B+G+M+3Blocks)
- Le Mirage Hotel (Redesign with the contractor)
- Cut and Bend Factory ("steel structural" with concrete buildings)

Road projects:

- GT 220 (H.B.K.) Mesaimmer RPS & Associated Pipeline Pumping Station
 - Participate of design the main and service roads inside the project.
- Excavation & Preparation of Road Base for Roads @DSWMC.
- Design Landscaping & Roads in several project such as:
 - HBK Paking Tower
 - Dunes Hotel Basement Parking
 - Office Building Airport Road, Umm Ghuwalina B4+G+M7
 - Samriya Office
 - West Bay Mall (Zigzag Tower)

3.0 Rukn Al-Orden

Position: Structural Engineer - 2002-2004

Responsible for achieving all works related to structural analysis, inspection and design of all projects including preparing structural drawings, site visits, reviewing the design of different structures and conducting meeting with the corresponding authorities and engineers.

Projects:

- Low Rise Building, Villas
- Bill of Quantity for all the projects
- Commercial Buildings & Schools

- Industrial Building “ steel structure”

RENOVATION PROJECTS:

1.0 MZ & Partners

- Hotel Block C in Souq Waqif
- Diwan Amiri
- Al Duhail Palace
- Torch Tower in Aspire Zone

2.0 Top Vogue

- Alif Store
- Flik Cinema @ Al Mirqab Mall
- Jaguar & Land Rover
- Tawar Mall
- Al Bidda Tower

بيانات المهندسين المعتمدين

2794000949 ** رقم البطاقة
 ** رقم القيد

تحميل

رقم القيد	الاسم العربي	الاسم الانجليزي	جهة العمل الحالية
5268	اروى يوسف مسعف السليحات	USEF MESEF ALSEHAT	حازم احمد محمد وشاح

الأعمدة المخفية: 1

بيانات المهندس

الاسم العربي	اروى يوسف مسعف السليحات	الاسم الانجليزي
تاريخ القيد	09/07/2021	رقم القيد
تاريخ انتهاء القيد	08/07/2024	تاريخ قيد المهندس
الفئة	الاولى	التخصص

www.mme.gov.qa/cuil/view.dox?id=1302&siteID=1

BUFETE, ALVIN R.

Personal Particulars:

Profession: Civil/Structural Engineer
Specialization: Structural Steel, Concrete, Mid-Rise Buildings, High-Rise Buildings, Industrial warehouses, Office Buildings, Foot Bridges
Place of Birth: Philippines
Nationality: Filipino
QID No.: 28560803818

Qualification and Experience:

Summary of Qualifications, Experties and Skills

- I have a vast professional experience in Structural Engineering. I have acquired my 10 years of experience from a reputable multinational Architectural and Engineering Company. I have a solid experience on design of various concrete and steel building structures such as Industrial Warehouses, Office Buildings, Hotels and Residential Buildings, Showrooms and etc. from Schematic Design Stage to Detailed Design. I am knowledgeable of International Building Codes. I am equipped with expertise and techniques on various engineering design tools and computer programs which I applied and utilized to produce a cost-effective design and deliver it on time with quality. I also have a keen eye on checking design calculations and structural numerical models together with design and shop drawings. I have communication skills necessary for coordination with the contractor and client. I can handle pressure with ease, eager to learn new sets of skills and knowledge and can easily be trained, open-minded and a good team player.
- Experienced in using international codes and standards such as but not limited to ACI, ASCE, AISC, UBC, IBC, and British Standards.
- Proficient in using different engineering software but not limited to STAADPro, Expert, Prokon, PCA Column Design, HILTI Profis, ETABS/SAP, Robot Structural Analysis.
- Knowledgeable of hand calculation design for Reinforced Concrete Members, Steel Members and Steel Connections.
- Knowledgeable of computer programs for preparation of Structural Calculation Reports and documentations such as Microsoft Word, Excel and PowerPoint.
- Has knowledge on using the latest CAD and BIM software such as AutoCAD and REVIT.

Certification and Licenses

Professional Civil Engineer – 2007, Philippines
Professional Regulation Commission
Registration Number: **0109751**

Education

Bachelor of Science in Civil Engineering – 2007
Ateneo De Naga University, Naga City, Philippines

Career details:

1.0 Top Vogue Design & Contracting (Doha, Qatar)
Position: Structural Design Engineer (September 2013 till present)

Involved on 3D/2D space structural steel frames, aluminium and glass curtain walls, cladding works and canopy for small and large scales projects.

Projects

- 72m roof canopy that spans between two buildings in Qatari Diar Headquarters
- Various mezzanines and ceiling support system for retail shops in Doha
- Sloping ceiling support system having a maximum span of 26m in Al Bidda Tower
- Temporary utility bridges for Rail projects having a maximum span of 64m.
- Temporary foot bridges in Rail projects.
- 35m high communication towers for Al Jaber Project
- Various steel warehouses for SFSF project
- 18m diameter and 32m high concrete rice silos for SFSF Projects
- HGH Annex Garden Canopy
- 12m Radar Tower
- PEB Structures at Shield 5 Qatar
- 42m Radar Tower
- Tawar Mall External LED Screens Support Frames
- ATC Stimulator Building
- Jaguar & Land Rover Qatar
- Vendome Mall Mezzanines
- Waterfront Residences Spherical Structure
- Carbon Wheels Qatar

2.0 MZ & Partners (Architectural & Engineering Consultancy- Doha, Qatar) **Position: Structural Design Engineer (February 2009-February 2017)**

MZ & Partners Architectural & Engineering Consultancy commonly referred to as MZP offers extensive consultancy services in the field of Architectural, Structural & MEP. It provides unique designs that shaped the skylines of downtown Doha. Complex structural designs are usually required to achieve the architect's visions.

Detailed Job Description

Assists the Lead Structural Design Engineer in planning for the design requirements for the assigned project starting from the schematic design stage to the detailed design stage and construction phase.

- Prepares structural design notes and report detailing all the required items necessary for the design of structure.
- Formulates solution to problems and/or design conflicts encountered during the design stage and be able to minimize and/or solve the issue with minimal impact on project timetable.
- Supervision of fellow design engineers and detailers while assigning tasks to complete the project within the allotted timetable.
- Deals with clients during the conceptual stage up to construction phase.
- Deals with contractors on site meetings during the construction phase of the project.
- Manages two or more ongoing projects assigned by the Lead Structural Design Engineer.
- Engineer in-charge of preparing the Structural Design Basis for the project.
- Answers RFIs from the contractor on the specific project.
- Review shop drawings and structural report for third-party approval.
- Gives recommendation and assists the Lead Structural Design Engineer in formulating plans and decisions in order to expedite the design works without sacrificing safety and quality.

Specific Projects Undertaken

Asia 4 Towers (Mozoon Towers)

- Mozoon Towers consists of four (4) numbers of residential towers with podium levels used as common retail spaces.
- A maximum of 52-storey high-rise building that consists of concrete shearwall and flat slab system.

Al Sadd Office Building (3B + G + M + 19 + R)

- High-rise structure that consists of concrete shearwall and flat slab system.

Hotel Building (2B + G + M + 10)

- Mid-rise structure that consists of concrete shearwall and flat slab system.

Bin Dirham Residential Building (B + G + 7)

- Mid-rise structure that consists of concrete shearwall and flat slab system.

Office Building (4B + G + M + 7)

- Mid-rise commercial building that consists of concrete shearwall and 12m span flat slab system.

Marbu Headquarters Building (2B + G + M + 3)

- Low-rise commercial building that consists of concrete shearwall and flat slab system.

Al Bustan Commercial Complex

- Mixed-use residential and commercial mid-rise complex that consists of concrete shearwall and flat slab system

Lexus Showroom (4B + G + 2)

- Low-rise commercial building that consists of concrete shear wall and column with composite slab system.
- 27m span slab supported by steel truss system

Moon Island Villa (B + G + 2)

- Residential building that consists of concrete column and flat slab system.

Church Hrajel

- Low-rise structure that consists of concrete column and 23m span beam framing system.

Plastic Factory

- Industrial warehouse that consists of structural steel portal frame system having a maximum span/width of 52m.

3.0 Davis Langdon and Seah – Makati City, Philippines**Position: Assistant Quantity Surveyor (February 2008-December 2008)**

Davis Langdon & Seah is an international construction consultancy firm in Asia operating independently in 13 countries from 39 offices and a staff resources of nearly 3,000.

Detailed Job Description

- Assisted in taking-off of materials' quantities.
- Assisted the Senior Quantity Surveyor in preparing the Bills of Materials of projects both local and abroad.

SKILLS

Proficient and up-to-date various programs:

- STAADPro
- PROKON
- EXPERT

- PCA Column Design
- HILTI Profis
- ETABS
- SAP
- ROBOT Structural Analysis
- AutoCAD
- REVIT

Have knowledge of the latest International Codes, Standards, Design Criteria and Handbooks set by the following:

- British Standards (BS Standards)
- American Society of Civil Engineers (ASCE)
- American Concrete Institute (ACI 318)
- Universal Building Code (UBC 97)
- International Building Code (IBC)
- American Institute of Steel Construction (AISC)
- Qatar Construction Specification (QCS 2014)

Proficient in Microsoft Office Programs and others such as the following:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint

ALFONSO, JOHN PAUL R.

Personal Particulars:

Profession: Civil/Structural Engineer
Specialization: Structural Steel, Concrete, Mid-Rise Buildings, High-Rise Buildings, Office Buildings, Foot Bridges
Place of Birth: Philippines
Nationality: Filipino
QID No.: 28460809710

Qualification and Experience:

Certification and Licenses

Professional Civil Engineer – 2006, Philippines
Professional Regulation Commission
Registration Number: **0109751**

Qatar Ministry of Municipality and Urban Planning Engineer
Exam Passer 2016

Education

Bachelor of Science in Civil Engineering – 2006
Polytechnic University of the Philippines –Manila, Philippines

Career details:

1.0 Top Vogue Design & Contracting (Doha, Qatar)

Position: Structural Design Engineer (September 2019 till present)

Projects

- Corporate Office (3B+G+M+3)
- Strategic Food Security Facility
- Doha Port Re-development Project
- Al Thumama Stadium
- Tornado Tower

Detailed Job Description

- Responsible for the Structural analysis and Design of concrete and steel structure along with the preparation of Structural Drawings and Calculation note.
- Responsible for the preparation of Structural Report.
- Provide information and support to the Contractor Design.
- Coordinate and review of structural drawings prepared by the draftsmen.

2.0 MZ & Partners (Architectural & Engineering Consultancy- Doha, Qatar) **Position: Structural Engineer (October 2010 to March 2019)**

Projects

- Doha Oasis Mix Used Development (4B+30 Floors Hotel Building+13 Floors elliptical Building and Theme park) - (Cost - 7 Billion Qatari Riyals)
- Qatar University Sports and Event Complex
- Al Dafna Tower – Apartment (3B+G+M+30)
- Lusail Development – Substation 66/11 kv
- Sidra Medical and Research Center
- Supreme Education Council – Prototype Building
- Qatar Integrated Railway
- Al Sadd Building
- Wakra Mall
- Qatar Petroleum - Field Support
- Other Items related to Structural Analysis and Design of various concrete and steel structures (e.g. 52m span Canopy, Monorail Beam, steel tower hoist, steel tower and platform cooling tower, boiler room, steel trusses, glass supports, warehouse, cladding, foundation, water feature, ...) along with the preparation of structural calculation report.

Detailed Job Description

- Responsible for the Structural analysis and Design of concrete and steel structure along with the preparation of Structural Drawings and Calculation note.
- Design project based on the agreed client criteria reports which shall include all the related codes and standards.
- Coordinate and review of structural drawings prepared by the draftsmen.
- Coordination with other disciplines to ensure that the information provided in the structural drawings are in line with the architectural and MEP drawings.
- Provide information and support to the main contractor/client.
- Review of material submittals to ensure that the information are in line with the project specification/requirements.
- Structural review of design documents (i.e. Numerical Model, Drawings and Calculation Report).

3.0 Freelance (Manila, Philippines) **Position: Structural Engineer (March 2010 –October 2010)**

Projects

- China Bank (2 Branches)
- 4 Storey School Building
- 2-Storey RC Structures (Lying In, Residential and Model House)

Detailed Job Description

- Structural Analysis and design of RC and steel structure.
- Preparation of structural drawings and calculation note.
- Coordination with the client and main contractor.

4.0 Moldex Realty, Inc (Quezon City, Philippines)

Position: Design Engineer 1 – Design Engineer 2 (June 2007 –March 2010)

Projects

- Heritage Spring Homes
- Villa Caceres
- Alegria @ Dos Rios
- Metrogate Primavera
- Heritage Home Marilao
- Metrogate Meycauayan
- Metrogate Angeles
- Metrogate Spring Meadows
- Metrogate San Jose

Detailed Job Description

- Prepares preliminary and final engineering plan and design studies.
- Responsible for the structural analysis and design various structures (e.g. Elevated water tank, signboard, wooden bridge, clubhouse, model houses, slope protection, ...) along with the preparation of structural drawings and report.
- Analyze, design and prepares plan for road network, water supply, drainage systems.
- Coordination with other disciplines.
- Review all the related design documents (drawings, report, etc.) in coordination with the Lead engineer.

5.0 E.H. Sison Engineers Co. Inc. (Engineering Consultancy)-Makati City, Philippines

Position: Junior Structural Engineer (January 2007 – June 2007)

Projects

- MNR Bridges (DPWH)
- 30m, 45m, and 50m Communication Tower (Bayantel and Sun Cellular)

Detailed Job Description

- Prepares preliminary and detailed design of bridges.
- Check of relevant design drawings and report.
- Conduct Site Inspection and necessary coordination with other involve parties related to the proposed location of towers.
- Structural Analysis, design and Investigation of communication towers.
- Design of foundation/anchorage for the communication towers.
- Review of Structural Drawings.

6.0 ALC Canete & Associates (Engineering Consultancy)-Quezon City, Philippines Position: Junior Engineer (January 2006 – May 2006)

Projects

- North Luzon Expressway
- 3 Storey Apartment

Detailed Job Description

- Structural Analysis and design of piles.
- Coordination with the design team.
- Structural Analysis and Design of 3 Story Apartment.
- Prepare structural drawings related to the project.

SKILLS

- Autodesk Robot Structural Analysis, STAAD Pro, Ram Concept, Plaxis, Softdesk 8, ...
- PCA Columns, Expert Calculator, Prokon, Limcon
- Autocad Software and Revit Structure
- Prepares excel program related to the design

Training/Seminars:

Civil / Structural Engineering Trainings:

- 4th Technical Summit 2018
- Analysis and Design of High Rise Buildings Dynamic Response Spectrum using IBC/ASCE, UBC 1997 & NSCP 2015 Code and Specification
- 4th Annual ASEP RCC Qatar Technical Conference 2018
- Post-Tensioned RC Buildings Structures (Beams and Floor Slabs)
- STAAD PRO (Computer Aided Structural Analysis and Design)
- AUTOCAD 2006 with Color Rendering
- Revit Structure 2010
- Structural Analysis and Design (STAAD PRO)

لجنة قبول وتصنيف المهندسين ومكاتب الاستشارات الهندسية
Engineering & Consulting Offices Accrediting Committee

Engineering Registration Card بطاقة قيد في سجل المهندسين

جون باول رايس الفونسو
JOHNPAL REYES ALFONSO

Reg. No \ Grade الدرجة الثانية 12953
التخصص هندسة مدنية تصميم
جهة العمل كوب لوج للتصميم والمعلومات
صدر في النسخة : 2019/10/10
(26/2016)

رقم البطاقة الشخصية 28460809710
الجنسية الفلبين Philippines
تاريخ القيد 01/08/2016
تاريخ انتهاء القيد 31/07/2022

ختم اللجنة
Committee stamp

توقيع رئيس اللجنة
Chairman's Signature

انقضا لمدة عام 11 من تكون رقم 2014 (2) يجب تجديد القيد خلال 30 يوم من تاريخ انتهائه. ويرتاب على عدم التجديد لتفقد الامتيازات وكتاب الترخيص من سجل المهندسين. يرجى مراجعة الموقع الإلكتروني <http://www.bslac.org.ph>
Issued on article 11 of Law No.2/2014 must renew the Registration within 30 days of the Expiry date, consequences of not renewing, a fine will be collected and the registration will be cancelled. For more information please visit our web site <http://www.bslac.org.ph>

GUITANG, ARMANDO R.

Personal Particulars:

Place of Birth: Philippines
Nationality: Filipino
QID No.: 27860806229

Qualification and Experience:

Summary of Qualifications, Experties and Skills

Offering over 25 years experience in different types of infrastructures, a Bachelor of Science in Civil Engineering, an extensive and conceptual background in all areas of civil and structural planning, design analysis, implementation of a quality control system, establishment of a site control and site inspection procedures, project management and building appraisal. Ability to thoroughly analyze situations, propose creative solutions or constructive ideas, develop good relationship, a team player, able to accomplished designated task independently. Computer literate and familiar with design codes, standards and regulations (British, Euro, American, Singapore, Qatar and Philippines).

Experienced in the fields of:

- Infrastructure Planning
- Civil Engineering
- High-rise Structures (Buildings)
- Bridge, Road and Highway Engineering
- Geotechnical Engineering
- Specialist Works (Space Structures, Curtain Walls, Cladding Works, Cyclic Analysis)
- Construction Management

Education

Bachelor of Science in Civil Engineering, Mindanao State University
Marawi City, Philippines (April 1990)

PROFESSIONAL REGISTRATION AND AFFILIATION

- Professional Civil Engineer, Manila, Philippines (1990)
- Professional Jr. Geodetic Engineer, Manila, Philippines (1991)
- Philippine Institute of Civil Engineers - Member (1992)
- Institution of Engineers of Singapore – Associate Member (2008)
- Registered Resident Technical Officer – Building & Construction Authority, Singapore

Career Details:

1.0 Top Vogue Design & Contracting (Doha, Qatar)**Position: Structural Designer (September 2013 till present)**

Involved on 3D/2D space structural steel frames, aluminium and glass curtain walls, cladding works and canopy for small and large scales projects.

Detailed Job Description:

- Liaison with Clients, Architects, M&E consultants to incorporate different important features of design, analyzed the project cost & budget, construction schedule and method, and other technical aspects.
- Managed designers and detailers for structural plans, design and co-ordination works.
- Designed and analyzed of structural steel, aluminum, glass elements, lateral load by using commercial software (STAAD Pro 8i, TEDDS, PROKON, ETABS, ROBOT, LIMCON, etc.).
- Involved project tender, valuation, supervisions, attended consultant & site meetings, monitors site progress and administration works between clients, consultants, contractors.
- Established site control, site inspection procedures, human-relations and solving of site construction problems.
- Conducted project management, site supervision and development administration.
- Advised on technical matters, carried out subsequent changes to structural members due to site constraints and reviewed monthly progress claim and variation order by contractor.

2.0 C&S Engineers (North Bridge Road, Singapore)**Position: Principal Engineer/Projects Manager (July 2006-June 2013)**

Projects: Involved on small and large scales structural projects such as residential condominiums and apartments, industrial and commercial buildings, civil engineering projects and building appraisal.

Detailed Job Description:

- Liaison with Clients, Architects, M&E consultants to incorporate different important features of design, analyzed the project cost & budget, construction schedule and method, and other technical aspects.
- Prepared architectural and structural planning, design and co-ordination works.
- Conducted submission to relevant authorities for clearances, approval and permit to commence works.

- Involved project tendering, valuation, supervisions, attended consultant & site meetings, monitors site progress and administration works between clients, consultants, contractors, site supervisor (Resident Engineer) and government authorities.
- Established site control, site inspection procedures, human-relations and solving of site construction problems.
- Conducted project management, site supervision and development administration.

3.0 DPC Consulting Engineers (Boon Lay Way, Singapore)

Position: Senior Civil/Structural Engineer/Projects Manager (July 1995-Mar 1997/October 1998-June 2006)

Projects: Involved on small and large scales structural projects such as high-rise residential condominiums and apartments, industrial and commercial buildings, institutional and community buildings, civil engineering projects and building appraisal.

Detailed Job Description:

- Liaison with Clients, Architects, M&E consultants to incorporate different important features of design, analyzed the project cost & budget, construction schedule and method, and other technical aspects.
- Designed and analyzed of key foundation and super-structural elements, lateral load by using commercial software (STAAD Pro 2004, Top-CAD, ETABS, RAPT, ATS, SAFE, SAP 2000, PLEXIS, etc.).
- Draft and prepared civil and structural drawings using drafting software (AUTOCAD) for tender, submission & construction, technical & contract specifications and administration of contracts.
- Conducted submissions of temporary works, structural plans and design calculations and external/civil works to government relevant authorities to obtain approval, permit to commence works and clearances using the electronic e-submission (E-corenet).
- Involved project tendering, valuation, supervisions, attended consultant & site meetings, monitors site progress and administration works between clients, consultants, contractors, site supervisor (clerk-of-works) and government authorities.
- Established site control, site inspection procedures, human-relations and solving of site construction problems.
- Advised on technical matters, carried out subsequent changes to structural members due to site constraints or Owner/Architect instruction and reviewed monthly progress claim and variation order by the contractor.
- Carried out building appraisals, evaluated reports, correspondence works and submission of as-built plans and drawings to authority until the completion of the project.
- Encompassed project management, design and development administration.

4.0 W.M Lewo & Associates Consulting Engineers (Serangon Road, Singapore)
Position: Senior Civil/Structural Engineer (April 1997-September 1998)

Projects: Worked and concentrated more on large-scale civil engineering projects such as oil & gas structures & facilities, chemical & industrial plants (pipe rack structures, bridge, boiler and demineralization plants, substations, stack and storage tank foundations, pits, weighing bridge, portal frame structures, crane gantry girder structural support, roads & drainage system, dams & irrigation system and other onshore / offshore civil engineering structures.

Detailed Job Description:

- Liaison with Clients, Architects, M&E, Piping, Instrument and Process consultants to incorporate different important features of design, analyzed the project cost & budget, construction schedule and method, and other technical aspects.
- Designed and analyzed of key sub and super-structural elements, lateral load by using commercial software such as STAAD III, Top CAD, ATS, etc.
- Draft and prepared structural drawings for tender, submission & construction, technical & contract specifications for tender and submission.
- Conducted submissions of structural plans and design calculations to government relevant authorities to obtain approval and permit to commence works.
- Established site control, site inspection procedures, human relationship between resident site staff and contractor's staff.
- Conducted supervisions, attended consultant and site meetings, monitors site progress and administration works between clients, consultants, contractors and government authorities until project completion.
- Advised on technical matters, carried out subsequent changes to structural members due to site constraints and reviewed monthly progress claim and variation order by contractor.
- Encompassed project management, design and development administration.

5.0 TAISEI CORPORATION (Middle Road, Singapore)
Position: Project Engineer (December 1992-June 1995)

Projects: Hotel Negara (Consists 21-Storey Hotel Block and 4-Storey Podium/Recreational Block);
Japanese International School (Consists of 3-Storey Admin. Block, 3 Blocks 3-Storey Classroom, Gymnasium, Football Field, and Swimming Pool)

Detailed Job Description:

- Conducted preliminary studies and recommendations.
- Prepared tender, planning and construction method and schedule.
- Conducted preliminary survey and instrumentation.

- Checked and reviewed engineering drawings to oversee discrepancies and misinformation.
- Guided sub-contractors and subordinate on the general direction of works and progress.
- Conducted supervision and inspection from instrumentation, earthworks, temporary works, sub and super-structural works.
- In-charged on implementation, procurement of materials, management of contracts, preparation of monthly progress claims and coordination of the daily activities.
- Conducted daily coordination meetings and prepared technical reports to the consultants and clients.
- Prepared construction data and updated reports.
- Developed, administered and conducted quality control program and safety measures.

6.0 DONG-AH CONSTRUCTION LTD. (Benghazi, Libya)
Position: QA/QC Inspector/ Engineer (May 1991-June 1992)

Projects: Great Man-Made River Project – Construction of appurtenant structures, thrust blocks, gabion, reservoirs, irrigation system, cut and fill activities, piling works, underground pipes laying, dredging and road construction.

Detailed Job Description

- Implemented a quality control system.
- Monitored and coordinated contractor's day-to-day operations to ensure compliance with the drawings, specifications, contract and schedule.
- Established site control and site inspection procedures.
- Interpreted project drawings and specifications and provided technical clarifications.
- Conducted inspection from instrumentation, earthworks, temporary works and structural works.
- Conducted soil and material laboratory test for construction.
- Prepared and issued directions, instructions, accomplishments and non-conformance reports.
- Established construction procedures and analyzed project cost and budget.
- Involved in coordination, planning and implementation of all activities in the construction of project.
- Managed and directed the development and completion of the project.

SKILLS

Application

- AutoCAD 2015
- STAAD Pro 8i, ROBOT, TEDDS, SAFE, SAP 2000, Top CAD, ETABS, RAPT, PROKON, PLEXIS, ATS, AUTOPIPE, LIMCON (Design Software)
- Primavera P6, Microsoft Project, Sure Track (Project Management Software)

Technical

- Microsoft Office, Adobe Softwares, Lotus 123
- Macro Command, MathCad
- E-corenet (Electronic Submission to Authority)

SEMINARS & COURSES ATTENDED

- ISO 9001:2008 and MZP Quality Mgt System, MZ & Partners, Doha, Qatar, 04 Sept 2013.
- Weld Joint Geometry And Types of Welds, IES Academy, Singapore, 01 Oct 2009
- Good Concrete Practice, Supervision of Insitu Concrete Construction, IES Academy, Singapore, 20 Aug 2009
- Fundamental of Visual Inspection, IES Academy, Singapore, 09 Dec 2009
- Good Concrete Practice, Supervision of Pre-stressed Concrete Construction, IES Academy, Singapore, 08 Oct 2009
- Good Concrete Practice, Supervision of Precast Concrete, IES Academy, S'pore, 05 Nov 2009
- Cert of Competency in Earth Control Measures, Public Utilities Board, Singapore, 07 July 2009
- 43rd IES Annual General Meeting, York Hotel Hall, Singapore, 16 April 2009
- Post Tensioning Design and Construction, Advance Contech (S) Pte Ltd, Singapore, 18 Sep '06
- S100E: First Course in ETABS, OTTE International Building, Singapore, 25 Aug 2006
- New Soil Improvement Techniques, Geotechnical Research Centre, NTU, S'pore, 12 Jan 2005
- Structural Inspection and Appraisal of Buildings, Building and Construction Authority, Singapore, 10 Oct 2003
- Seminar on Achieving High Buildability & Construction Excellence, CITI, Singapore, 18 July 2003
- Software Technology for Building Design, CSC, CITI Singapore, 22 Sept 2005
- Slope Stability Analysis, Nanyang Technological University, Singapore, 17-24 August 2002
- Site Investigation and Soil Testing, IES Geotechnical Division, Singapore, 15 August 2001
- Temporary Works for Deep Excavations, IES Geotechnical Division, Singapore, 01 June 2001
- Big Tunnels in Bad Rock, NTU-PWD GRC Research, Singapore, 19 April 2001
- Progressive and Retrogressive Landslides, NTU-PWD Research Centre, Singapore, 07 Dec 2000
- Building Construction Safety Supervisors Course, Ministry of Labour, Singapore, 08 May 1995
- Safety Instruction Course For Lifting Supervisors, Ministry of Labour, Singapore, 16 May 1995
- 18th PICE National Convention, PICE, Manila, Phil, 3-5 Nov 1992
- AutoCAD R12, Informatics Computer School, Singapore, 17 Oct 1993

MAJOR SELECTED CIVIL WORK PROJECTS

- **Great Man-made River Project**
Consist of appurtenant structures, thrust blocks, gabion, reservoirs, irrigation system, cut and fill activities, piling works, underground pipes laying, dredging and road construction (Benghazi, Libya, US\$2.5 billion, 1991)

- **Sembawang Utilities And Terminals**
Construction of steel bridges, pipe rack steel structures, underground storage tanks, substation, demineralization and boiler underground tanks and refinery plants (Pulau Sakra, Singapore, S\$ 175.2 million, completed 1998)
- **Changi International Airport Infrastructures**
Proposed design and build new road (rigid pavement) and bridge (1.6445km length) (Changi International Airport, Singapore, S\$ 281.35 million, completed 1996)
- **Deep Tunnelling Sewerage System (Public Utilities Board, Singapore)**
Construction of underground 4m diameter sewerage pipe line, underground treatment plant, underground storage tanks, caissons, manhole, chambers, diaphragm walls. substation and refinery plants (Tanah Merah, Singapore, completed 2004)
- **ESSO Singapore Pte Ltd**
Entrance facilities construction of access roads, sulphur pit, storage tanks, extension of facilities (Pulau Ayer Chawan, Singapore, S\$ 16.25 million, completed 1998)
- **Land Transport Authority Singapore Overhead Bridges Package 1 and 2**
Precast concrete elements (Bukit Timah Road, Woodlands, Ang Mo Kio, Tuas, Singapore, S\$ 137.0 million)
- **Opera Estate Drainage System**
Underground box pre-cast panel, 3 cells, 10.5 m width, 12.1 kms (Opera Estate, Singapore, S\$260.75 million)
- **Land Transport Authority Singapore**
Proposed roads and underground drains tunnel (725 m) and design construction of contiguous bored pile wall at Changi North Industrial Estate, Singapore (completed 2006)
- **Camelia Resource Recovery Pte Ltd Water Treatment Plant**
Tuas Avenue 3, Singapore, S\$ 18.8 million, completed 2005
- **Barwa City Pumping Station & Pipeline for Portable Water**
Design of water tanks and pumping station facility with all related building at Barwa City, Doha
- **GTC 220 Kahramaa Pumping Station & Pipeline for Portable Water**
Design of water tanks and pumping station facility with all related building at Messaimeer, Doha
- **GTC 275 Kahramaa Project for Valve Chamber and Pipeline**
Design of underground valve chamber, trenches and pipeline profile at Messaimeer, Doha
- **GTC 353 Kahramaa Project for Additional Reservoir**
Design of inlet, overflow, valve chamber and pipeline profile at Doha South RPS, Doha
- **ECS Waste Management Facility @ Ras Laffan Industrial City**
Design of service roads, underground utilities, servicing bay, drainage system, land treatment unit, storm & surface water and foul water sewerage system
- **Musheireb - Heart of Doha**
Design of underground tunnel pedestrians utility to car parking building.
- **Lusail Development CP1**
Design of potable water & fire fighting RPS1 underground chlorination plant
- **Doha North Sewerage Treatment Works**
Design of fixed point chilled water piping, pipeline and storage tanks
- **The Lusail LRT Tunnel**
Design of LRT underground tunnel (3rd Party Consultant)
- **ERC 1400 D23 Links Roads to the Pearl Expressway**
Design of Lusail expressway underground tunnel (4 cells)
- **66/11 KV Substation @ Lusail**
Design of underground substation for Lusail development
- **East Corridor P011 Package 2**
Design of pedestrian underpass and pipeline protection culverts
- **Doha & Rayyan Sewerage System Development**

- Design of sewerage system including manholes and chambers
- **Lusail CP06 Generator, Substation, Pumping Station and Chlorination Building**
Design of underground structures for RPS2, RPS3 and STPS1 for Lusail development
- **Marina Yacht Club @ Lusail**
Design of enabling works and sub-structures
- **Hamad Medical Corporation OPD**
Design of service road, parking lots, soakaway, gates, shades, boundary wall and drainage system
- **Marina Lusail**
Design of 66/11kv marina substation transformer and utility tunnel
- **Qatar Foundation - Education City**
Design of telecom connections underground chambers
- **Western Green Spine**
Design of underground irrigation tank
- **Sewage Treatment Plant - STP @ Al Jaber**
Design of underground fog & grit removal tank, process tank, sewage lifting station and STP building
- **Villagio Mall**
Design of underground storm water tanks, water holding tanks, chambers and manholes

MAJOR SELECTED STRUCTURAL WORK PROJECTS

- **Hilton Hotel Singapore**
Proposed 21-storey hotel block with 4-storey podium block, swimming pool, 2 basements car parks, substation (Claymore Road, Singapore, S\$65 million, completed 1995)
- **Saint Michael Residential Condominium**
(2 blocks of 9 and 10 storey residential condominium with basement car parks, swimming pool and amenities (St. Michael Road, Singapore, S\$ 24 million, completed 2001)
- **EXXON Petrochemical and Petroleum Facilities and Laboratory Factory Building**
(Pulau Ayer Merbau, Singapore, S\$ 45.9 million, completed 2000)
- **Canadian International School**
A 1 Block of 3-storey admin office, 3 blocks of 2-storey classrooms, single storey gymnasium and playground, sub-station (5 Toh Tuck Road, Singapore, 5.5 million, completed 1998)
- **Bukit Merah Housing Development Board**
Housing development construction design and project management consultant (8 Blocks 30-storey pre-cast structures) (Bukit Merah, Singapore, completed 1996)
- **Singapore Police Academy @ Pulau Ubin**
Infrastructure 47 medium rise chalets, single storey gymnasium, swimming pool, recreational facilities, sub-station (Singapore, S\$25 million, completed 1999)
- **Peach Garden Condominium**
20-storey condominium (Meyer Road, Singapore, completed 1997)
- **Maresei Industrial Building**
4-storey warehouse and factory building (Sungie Kadut Drive, Singapore, S\$ 4.5 million, completed 1997)
- **Singapore Second Japanese International School**
Consists of 3 blocks 3-storey classrooms, 1 block 3-storey admin office building, gymnasium, oval track, open plaza, car park lots and swimming pool using precast hollow core slab system at Upper Changi Road (S\$ 24 million, completed 1994)
- **Hilton Hotel Singapore**
Proposed 21-storey hotel block with 4-storey podium block, swimming pool, 2 basements car parks, substation (Claymore Road, Singapore, S\$65 million, completed 1995)
- **Sembawang Utilities And Terminals**

Construction of steel bridges, pipe rack steel structures, storage tanks, substation, demineralization and boiler refinery plants (Pulau Sakra, Singapore, S\$ 125.2 million, completed 1998)

- **Singapore Technologies Pte Ltd**

Design and build of B757-200 aircraft fuselage docking platform with storage room at Upper Changi Road, Singapore (completed 2007)

- **Peach Garden Condominium**

20-storey condominium (Meyer Road, Singapore, completed 1997)

- **Buddhist Free Clinic and Hospital**

7-storey institutional building at 48 Lorong 23 Geylang, Singapore (completed 2007)

- **HEC Manufacturing Industrial Building**

Proposed erection of 4-storey green factory building with ancillary office and worker's dormitory at 47 Sungie kadut Street 6, Singapore (S\$ 6.87 million)

- **PPL Shipyard Pte Ltd Oil Rigs Manufacturing And Ancillary Facilities**

Portal frames structures (27 Tuas Crescent, Singapore, S\$ 2.75 million, completed 2008)

- **Carpmael Condominium**

A block of 5-storey and a block of 4-storey condominium development (total 52 units) with basement carparks and swimming pool at Carpmael Road, Singapore (S\$ 18.8 million, completed 2006)

- **GES International Pte Ltd Single User Factory**

6-Storey flat slab and post tensioned beams and slabs at Tuas Avenue 9, Singapore, S\$ 7.65 million, completed 2002

- **Msheireb-Heart of Doha**

Specialist works for RC precast and stone cladding works, glass and aluminum curtain wall, Doha, completed 2014

- **Qatar Olympic Committee Main Shooting Building**

Consist of multi-purpose hall, fire range area with 85m span space truss roof supports

- **Mozone Towers 4 Blocks (B5+G+M+50) @ Dafna**

Design of enabling works, sub and super structural works

- **Marbu Headquarter Building ECQ F11**

Design of enabling works, sub and super structural works

- **Al Muntaza Commercial and Residential Development (B3+G+7)**

Design of enabling works, sub and super structural works

- **National Museum of Qatar**

Specialist works for aluminum and glass curtain walls, cladding works

- **Office Building (B4+G+M+7) @ Airport Road**

Design of enabling works, sub and super structural works

- **Traffic Control Center - IFC Project**

Design of post tension structures such as beams and slabs

- **Qatar Doha Mall**

Specialist works for aluminum and glass curtain walls, cladding, skylights, canopy works

- **Al Sadd Office Building**

B+G+8-Storey flat slab and post tensioned beams and slabs at Al Sadd, Qatar, completed 2012

PUNLA, JANZEN V.

Personal Particulars:

Place of Birth: Philippines
Nationality: Filipino
QID No.: 28860815145

Qualification and Experience:

Certification & Licenses

Licensed Electronics Technician
License No.: 0002579
December 13, 2013

Education

Bachelor of Science in Electronics & Communications Engineering
University of the Cordilleras, Baguio City, Philippines (May 2013)

Career Details:

Top Vogue Design & Contracting (Doha, Qatar)

Position: Site Supervisor (2014 till present)

Detailed Job Description:

- Involved project tender, valuation, supervisions, attended consultant & site meetings, monitors site progress and administration works between clients, consultants, contractors.
- Established site control, site inspection procedures, human-relations and solving of site construction problems.
- Conducted project management, site supervision and development administration.
- Advised on technical matters, carried out subsequent changes to structural members due to site constraints and reviewed monthly progress claim and variation order by contractor.

Trainings:

Line of the site surveying, On the Job Training (2012-2013)

Wireless Mesh Network Proposal - Main objective is to set up a wireless connection for a Metropolitan Area Network by the use of Mesh routers and mesh clients.

- Identify the position of the back haul pints
- Identify the most convenient location of nodes (mesh routers)
- Check the accessibility between nodes

Electrical Wirings (December 2014)

Set-up electrical wirings for an internet café

- Layout AC line and outlets
- Layout LAN cables and connections
- Installed routers

Set-up electrical wirings for a Burger Shop

- Layout AC line, outlets and switches
- Installed Lightings
- Panaflex sign board installation

Plumbing

- Basic home plumbing issue repair
- Piping Installation
- Residential pipeline installation using PPR

Skills

- Microsoft Office Applications (Word, Excel, Powerpoint)
- Designing Circuit using PCB design and livewire software
- Programming microcontroller (C,C ++language)
- Reading Schematic Diagram

Seminars & Courses Attended

*Design and Implementation of a Complete Telecommunication System,
Assembly-test Manufacturing Process and Product Technology,
4G, TELCO 101, Digital TV
Management System in the ECE Practice,
Mobile Technology Trends,
Industrial Robotic and Bio-Medical Electronics*

University of the Cordilleras, Baguio City, Philippines (2011-2013)

1.0 COMPANY REGISTRATION DETAILS



وزارة التجارة والصناعة
Ministry of Commerce and Industry

Registration and Commercial
Licenses Department

إدارة التسجيل
والتراخيص التجارية

مستخرج بعض بيانات السجل التجاري

تاريخ الطباعة: 2020/10/28



5000106526	رقم التسجيل الضريبي:	98299	رقم السجل التجاري:
	السمة التجارية:	توب فوج للتصميم والمقاولات	الاسم التجاري:
02/11/2021	تاريخ انتهاء السجل:	07/05/2017	تاريخ انشاء السجل:
200000	راس المال:	شركة ذات مسئولية محدودة	الشكل القانوني:
قطر	جنسية المنشأة:	نشط	حالة السجل:
		0	عدد الفروع:
			صندوق البريد:
+974	أرقام الاتصال:		

معلومات الاتصال

الشركاء

الحالة	النسبة	الجنسية	رقم السجل	رقم الأليات	الاسم
نشط	49	الأردن		27940000949	اروي يوه ف مسعف المسليحات
نشط	51	قطر		29163400667	حمد فهد عبدالهادي المفقاعي العاجري

المدرء (المخولون بالتوقيع)

الاسم (الملاحية)	الجنسية	رقم السجل	رقم الأليات	الاسم
صالح كامل و مسقف - مصر	الأردن		27940000949	اروي يوه ف مسعف المسليحات



Page 1 of 2
رقم السجل : 98299



تشهد غرفة تجارة و صناعة قطر بان المنشأة المذكورة اعلاه سجلت لدينا

Qatar Chamber certifies that the above mentioned establishment has been registered



وزارة التجارة والصناعة
Ministry of Commerce and Industry

Registration and Commercial
Licenses Department

إدارة التسجيل
والترخيص التجارية

مستخرج بعض بيانات السجل التجاري

محمد فهد عبدالهادي المفضاعي الهادي	29163400667	قطر	صلاحيات كاملة ومطلقة - مدير
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الأنشطة التجارية

اسم النشاط	الرقم
الانشاءات و المقاولات العامه	4100001

اسم النشاط	الرقم
اعمال تنفيذ التصميم الداخلي	4331601
مقاولات تشييد الانشاءات المعدنية	4101011



Page 2 of 2
رقم السجل : 98299



تشهد غرفة تجارة و صناعة قطر بان المنشأة المذكورة اعلاه سجلت لديها

Qatar Chamber certifies that the above mentioned establishment has been registered

STATE OF QATAR
MINISTRY OF INTERIOR
General Directorate of Passport

دولة قطر
وزارة الداخلية
الإدارة العامة للجوازات

بطاقة قيد المنشأة
Establishment Card

رقم قيد المنشأة: 16-8988-00
Est. ID: 16-8988-00

اسم المنشأة: توب فوج للتصميم والمقاولات
Est. Name: TOP VOUGE DESIGN AND CONTRACTING

القطاع: تجاري
Sector: COMMERCIAL

تاريخ أول إصدار: 2017-06-21
First Issue: 2017-06-21

تاريخ الصلاحية: 2021-12-06
Expiry Date: 2021-12-06

مدير عام الإدارة العامة للجوازات

16898800

التوقيع	الاسم	رقم الوثيقة
	حمد فهد عبدالمهدي الفخاض الهاجري HAMAD FAHAD A AL-HAJRI	29163400667
	اروى يوسف مسطاب السلهات ARWA YOUSEF ALSLEHAT	27940000949

Cards 1 / 1 عدد البطاقات Instruction: على من يجد هذه البطاقة ان ياتيها بالاسم واسمها الي اي مركز للشرطة
• Whoever finds this card should deliver it to any police station.

2.0 LIST OF SOFTWARE & PROGRAMS

2.1 *Structural Design*

- *STAAD Pro*
- *Autodesk Robot*
- *Autodesk AutoCAD*
- *ETABS*
- *PCA Columns*
- *Revit*
- *Adapt*
- *SAFE*
- *PROKON*
- *RAM Concept*

2.2 *Project Management*

- *Primavera*
- *Microsoft Office Project 2007*

3.0 COMPLETED AND ON GOING PROJECTS LIST

3.1 Design Works With Full Coordination Between All Disciplines

Project	Client	Scope of works
Self-Standing Canopy at Kahramaa Awareness Park	High Vision	<ul style="list-style-type: none"> Design, Fabrication, supply and installation of sloping canopies.
Showroom Mezzanine at Street 41	High Vision	<ul style="list-style-type: none"> Fabrication, supply and installation of mezzanines having a total area of 575m². Design, fabrication, supply and installation of additional mezzanine with area of 150m² and elevated catwalk and stairs.
Spa at West Bay	UNII	<ul style="list-style-type: none"> Full structural design of building
Olympic Swimming Pool	UNII	<ul style="list-style-type: none"> Full structural design of building Design of diving pool having a maximum depth of 6.0m Design of bleachers for spectators. Design of inclined 10m high diving platform. The structure features steel trusses with maximum length of 40.80m with no intermediate column in between supports due to architectural requirements.
QPM Building in Energy City	UNII	<ul style="list-style-type: none"> Full structural design of (2B + G + M +3) building
Qatari Diar Headquarters Building	AEB	<ul style="list-style-type: none"> Design of 66m maximum unsupported span steel roof canopy spanning between two structure Design of 15 x 15m cantilever atrium Design of 38m high sloping façade
Damac Tower External Glazing & Aluminium Works	QD-CPC UAAC	<ul style="list-style-type: none"> Design of all external glazing and aluminium works (louvers, glass hand rail, canopy, spider glazing) to verify material properties.
Doha Green Line	QD-CPC UAAC	<ul style="list-style-type: none"> Full structural analysis and design of glazing and its components
Design of Glazing and Aluminum Frames at Worker's	QD-CPC UAAC	<ul style="list-style-type: none"> Full structural analysis and design of glazing and its components

Hospital & Integrated Health Center		
West Bay Medical Clinic	SALAM Enterprises	<ul style="list-style-type: none"> ▪ Design & Build of Slab Strengthening System ▪ Design & Build of Steel Bridge ▪ Design & Build of Canopy
Cladding Support Frame at ISF	SALAM INDUSTRIES	<ul style="list-style-type: none"> ▪ Design & Build of secondary support system for the 12m high wall cladding
Cold Storage Warehouse at HIA	LEO STEEL	<ul style="list-style-type: none"> ▪ Design of 48m span steel warehouse for cold storage at Hamad International Airport
30m span Utility Bridges at various stations in Gold Line	DIC	<ul style="list-style-type: none"> ▪ Design of utility steel bridges having a maximum span of 30m in various stations along Gold Line
26m span Pedestrian Bridges at Al Saad Station, Gold Line	LEO STEEL	<ul style="list-style-type: none"> ▪ Design of pedestrian steel bridges having a maximum span of 26m in Al Saad Station along Gold Line
54m span Utility Bridges at various stations in Gold Line	GREEN SHAMROCK	<ul style="list-style-type: none"> ▪ Design of utility steel bridges having a maximum span of 54m in Ras Abu Abboud Station along Gold Line
Ooredoo Headquarters	SALAM INDUSTRIES	<ul style="list-style-type: none"> ▪ Design & Build of secondary support system of various architectural features
Qatar Airways Mall of Qatar	SALAM INDUSTRIES	<ul style="list-style-type: none"> ▪ Design & Build of secondary support system of various architectural features
Salam Store	SALAM INDUSTRIES	<ul style="list-style-type: none"> ▪ Design & Build of secondary support system of various architectural features
Uno Chicago Kipling Love Moschino	SALAM INDUSTRIES	<ul style="list-style-type: none"> ▪ Design & Build of secondary support system of various architectural features
Design of Claddings, Glazing and Aluminum Frames at Economic Zone Station in Red Line Metro (FYAP)	QD-CPC UAAC	<ul style="list-style-type: none"> ▪ Full structural analysis and design of glazing and its components

Design of Claddings, Glazing and Aluminum Frames at Al Wakra Station in Red Line Metro (FYAP)	QD-CPC – UNITED ARAB ALUMINIUM COMPANY	<ul style="list-style-type: none"> Full structural analysis and design of glazing and its components
Design of Wall Claddings and Steel Frames at Redline Metro Stations	IMAR TRADING & CONTRACTING	<ul style="list-style-type: none"> Full structural analysis and design of cladding and its components
Technical Support Management at Strategic Food Security Facility Project in Qatar	ARCHITECTURE & PLANNING GROUP	<ul style="list-style-type: none"> Design of Rice Processing Warehouse Steel Design for Roof Silos Checking and Verification of Stainless Silos Checking Steel Tanks Checking Design of Al Jaber Steel Warehouses Design of Silo Concrete and Checking Raft and Pile
Design and build of structural steel support for external and internal LED screens for Tawar Mall	TAWAR MALL	<ul style="list-style-type: none"> Design and build of 8 numbers of External LED Screens and 2 numbers of Internal LED Screens
Design of 12m High Radar Tower	LEO STEEL	<ul style="list-style-type: none"> Full Structural Service for the design of 12m high radar tower Full shop drawings and fabrication drawings for steelworks
Design of 42m High Radar Tower	LEO STEEL	<ul style="list-style-type: none"> Full Structural Service for the design of 42m high radar tower Full shop drawings and fabrication drawings for steelworks
Design of Corporate Office (3B + G + M + 3 + R)	ARCHITECTURE & PLANNING GROUP	<ul style="list-style-type: none"> Full structural design services of commercial building
Renovation of Jaguar and Land Rover Showroom	ARAB ENGINEERING BUREAU	<ul style="list-style-type: none"> Structural services to support the renovated areas and enhancement of the existing structure
Design of Spherical Facade in Waterfront Residential Twin Tower at Lusail	AL BANDARY ENGINEERING	<ul style="list-style-type: none"> Full structural design of steel frames to support the spherical facade and floor levels

3.2 Supply & Fabrication Works

Project	Client	Scope of works
Office Fit-out of 40th & 41st Floor at Al Bidda Tower	Salam Enterprises	<ul style="list-style-type: none"> Erection of complex steel trusses to support a false ceiling. Maximum span of trusses is 17.0m Supply, design and erection of catwalks for maintenance.
Self-Standing Canopy at Kahramaa Awareness Park	High Vision	<ul style="list-style-type: none"> Design, Fabrication, supply and installation of sloping canopies.
Showroom Mezzanine at Street 41	High Vision	<ul style="list-style-type: none"> Fabrication, supply and installation of mezzanines having a total area of 575m². Design, fabrication, supply and installation of additional mezzanine with area of 150m² and elevated catwalk and stairs.
Modification of Mezzanine at Gucci Store in Villaggio Mall	Salam Industries	<ul style="list-style-type: none"> Supply and installation of new beams and columns. Strengthening of existing composite deck.
Silkor Mezzanine at Lagoona Mall	Scale	<ul style="list-style-type: none"> Supply and installation of new beams and columns. Complicated mezzanine since there is a presence of expansion joint directly below the mezzanine.
Aristocrazy Mezzanine at Lagoona Mall	Scale	<ul style="list-style-type: none"> Supply and installation of new beams and columns.
Versace at Lagoona Mall	La Nouvelle	<ul style="list-style-type: none"> Supply and installation of new steel framework to support false ceiling.
Karen Millen at Lagoona Mall	La Nouvelle	<ul style="list-style-type: none"> Supply and installation of new steel framework to support false ceiling.
Self-Standing Canopy at Kahramaa Awareness Park	High Vision	<ul style="list-style-type: none"> Design, Fabrication, supply and installation of sloping canopies.
Showroom Mezzanine at Street 41	High Vision	<ul style="list-style-type: none"> Fabrication, supply and installation of mezzanines having a total area of 575m². Design, fabrication, supply and installation of additional mezzanine with area of 150m² and elevated catwalk and stairs.
FLIK Mezzanine & Cinema @ Lagoona	Scale	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works for Cinema &

Mall		Mezzanine
Valentino Fit-out at Villaggio Mall	Graint & Design	<ul style="list-style-type: none"> Fabrication, supply and installation of primary steel structure to mezzanine
Salvatorre Ferragamo Fit-out at Villaggio Mall	Graint & Design	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Staircase and primary steel structure to mezzanine
Twinset Fit-out at Villaggio Mall	Graint & Design	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Staircase and primary steel structure to mezzanine
West Bay Medical Center - The Gate Mall	SALAM ENTERPRISES	<ul style="list-style-type: none"> Supply, fabrication and erection of steel works
West Bay Medical Center - The Gate Mall	SALAM ENTERPRISES	<ul style="list-style-type: none"> Supply, fabrication and erection of steel works for Electrical Rooms
West Bay Medical Center - The Gate Mall	SALAM ENTERPRISES	<ul style="list-style-type: none"> Supply, fabrication and demolition of roof Slab Opening to accommodate ducting services
The Gate Mall	SALAM ENTERPRISES	<ul style="list-style-type: none"> Supply, fabrication and Installation of Steel Canopy and Steel bridge Support
The Gate Mall – Salam Store	SALAM ENTERPRISES	<ul style="list-style-type: none"> Supply, fabrication and Installation of Extended Ceiling Steel Support
UNO Chicago Grill – Mall Of Qatar	KARAM Engineering	<ul style="list-style-type: none"> Supply, fabrication and Installation of Steel Slab Extension and Structural Staircase
UNO Chicago Grill – Mall Of Qatar	KARAM Engineering	<ul style="list-style-type: none"> Supply, fabrication and Installation of Steel Shop Front Support Raised Floor Installation and Waterproofing Services Supply, Fabrication and Installation of Double wall Cement Board
Mall of Qatar <ul style="list-style-type: none"> KIDO KIPLING DOHA BANK LOVE MOSCHINO BETTY BARKLEY 	Salam Industries	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Shop Front Support and Steel Ceiling Support
SALAM STORE at Mall of Qatar	Salam Industries	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Framing Support for Shop Front cladding. Fabrication, supply and installation of Steel Framing Support for Cladding Support for Escalator Area

		<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Framing Support Glass Railing
FLIK Mezzanine & Cinema @ Al Mirqab Mall	Scale	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works for Cinema & Mezzanine and demolition of existing concrete elements
Qatar Airways Office at Mall of Qatar	Salam Industries	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works for Stone Wall Cladding and Signage
Ooredoo Headquarters	Salam Industries	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works For Canopy, Staircase, Cladding Wall, Bulkhead and Mezzanine
Qatar Integrated Railway Project, Red Line	IMAR TRADING & CONTRACTING	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works For Subway Door Framing and Smoke Barrier
Qatar Integrated Railway Project, Red Line	IMAR TRADING & CONTRACTING	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works For Smoke Curtain areas
Qatar Integrated Railway Project, Green Line Elevated	IMAR TRADING & CONTRACTING	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works For Ceiling Support on the Pedestrian Bridge
LED SCREEN FRAMES	TAWAR MALL	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Framing Support for 8 Outdoor LED Screen Frames
NOVO Cinema Lobby	TAWAR MALL	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Framing Support for Cinema Lobby Ceiling
LAGOONA MALL Basement	SCALE DESIGN	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Framing for Apple, Bosch Service Centre Mezzanine Fabrication, supply and installation of Steel Framing for Apple, Bosch Service Centre Raised Floor Fabrication, supply and installation of Steel Framing for Apple, Bosch Service Centre Steel Ramp
BURJ AL FARDAN LUSAIL	Salam Enterprises	<ul style="list-style-type: none"> Fabrication, supply and installation of Steel Works For Burj Al Fardan Ceiling and Partition Framing Support

4.0 COMPLETED AND ON GOING PROJECTS PHOTOS

4.1 STRATEGIC FOOD SECURITY FACILITY DESIGN WORKS



4.2 DESIGN OF STEELWORKS FOR REDLINE METRO



4.3 DESIGN OF 42m HIGH RADAR TOWER



4.4 DESIGN OF CORPORATE OFFICE (3B + G + M + 3 + R)



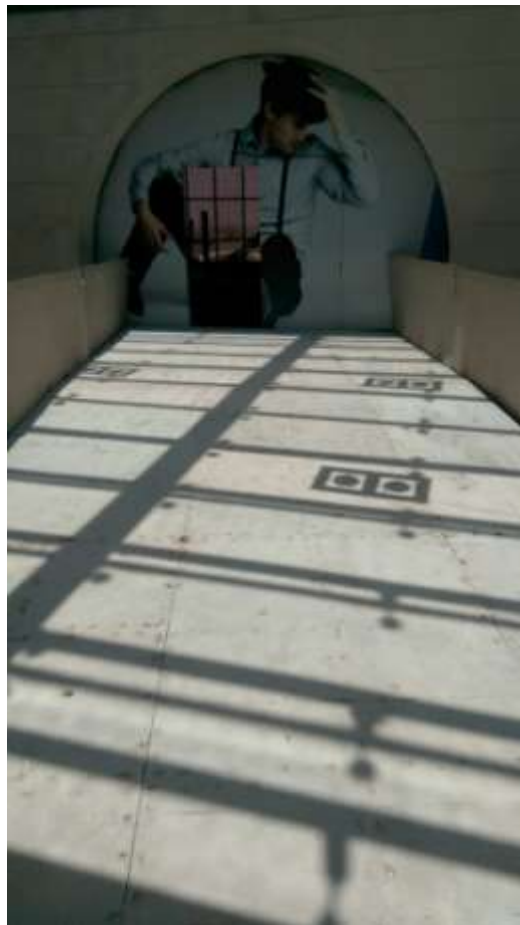
4.5 DESIGN OF STEEL FRAMES TO SUPPORT SPHERICAL FACADE



4.6 WEST BAY MEDICAL CLINIC CENTRE – GATE MALL







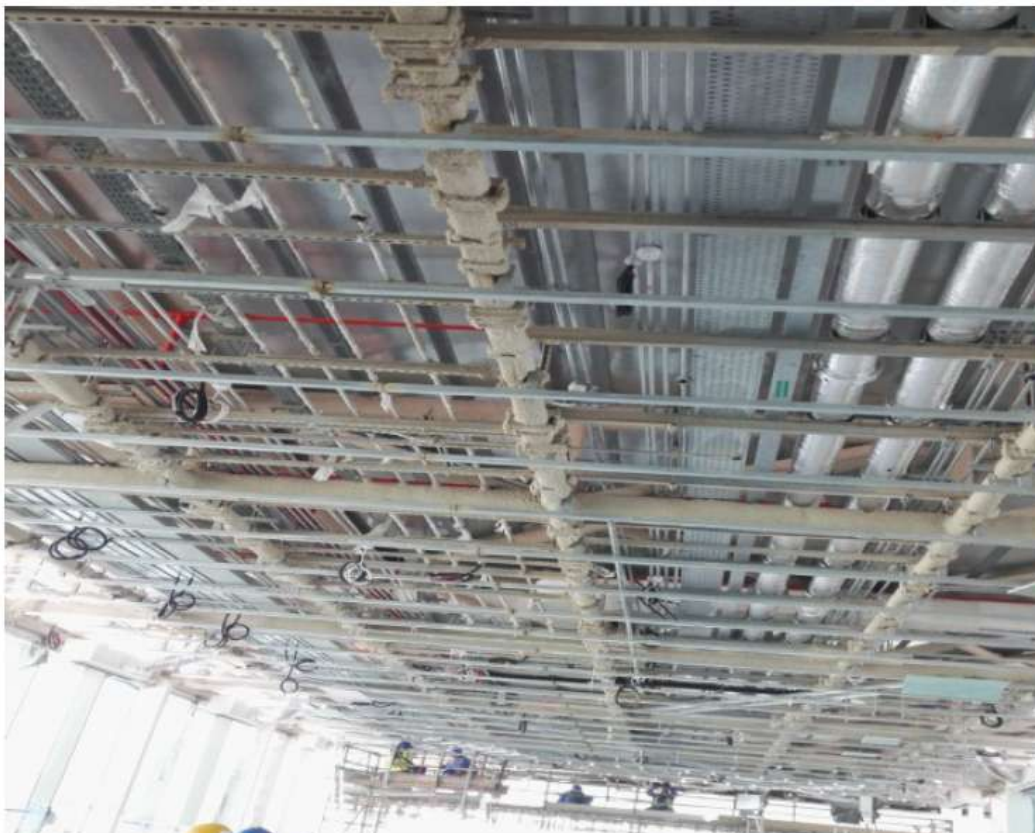




4.7 SF STEEL CLADDING SUPPORT FRAME



4.8 GREENLINE ELEVATED STATION – CEILING CLADDING STEEL FRAMES





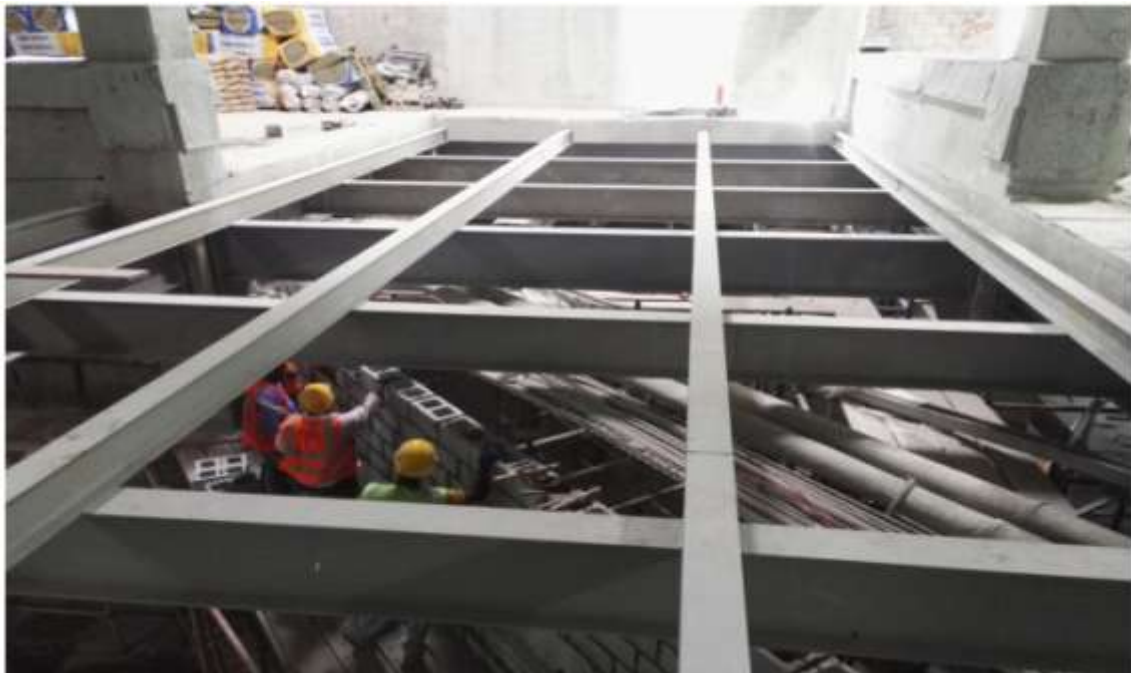


4.9 FLIK CINEMA STEELWORKS





4.10 AL MIRQAB MALL MEZZANINE





4.11 SALAM PLAZA CEILING EXTENSION





4.12 NOVO CINEMA LOBBY AT TAWAR MALL





4.13 PERGOLA FOR SHK. MOHAMED BIN KHALID



4.14 GAZEBO FOR SHK. MESHAL BIN ABDUL RAHMAN AL THANI



4.15 BURJ AL FARDAN CEILING AND PARTITION STEEL FRAME



4.16 APPLE BOSCH SERVICE CENTER





4.17 QATAR AIRWAYS AT MOQ – MARBLE CLADDING STEEL FRAME







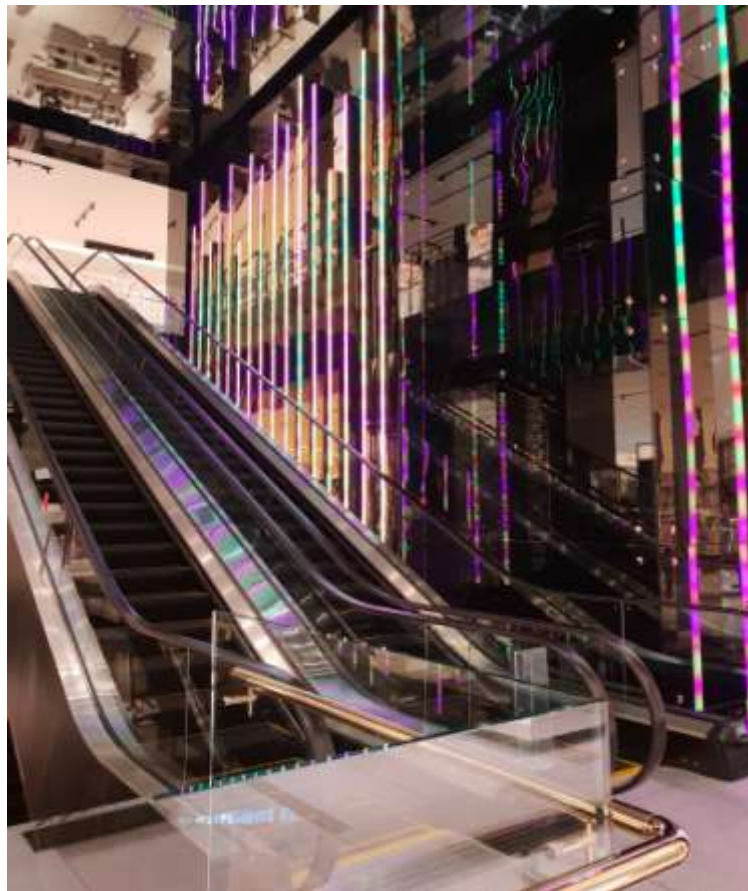


4.18 SALAM STORE AT MOQ – STEEL FRAME







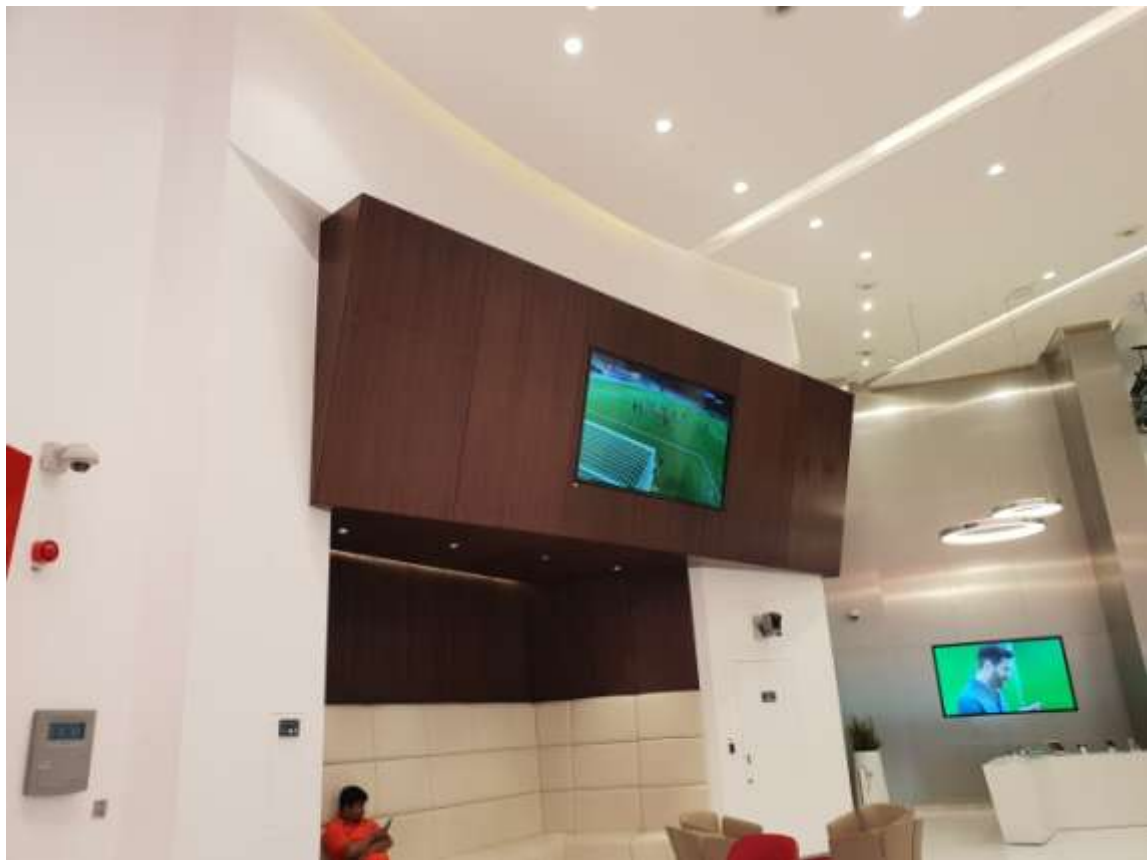


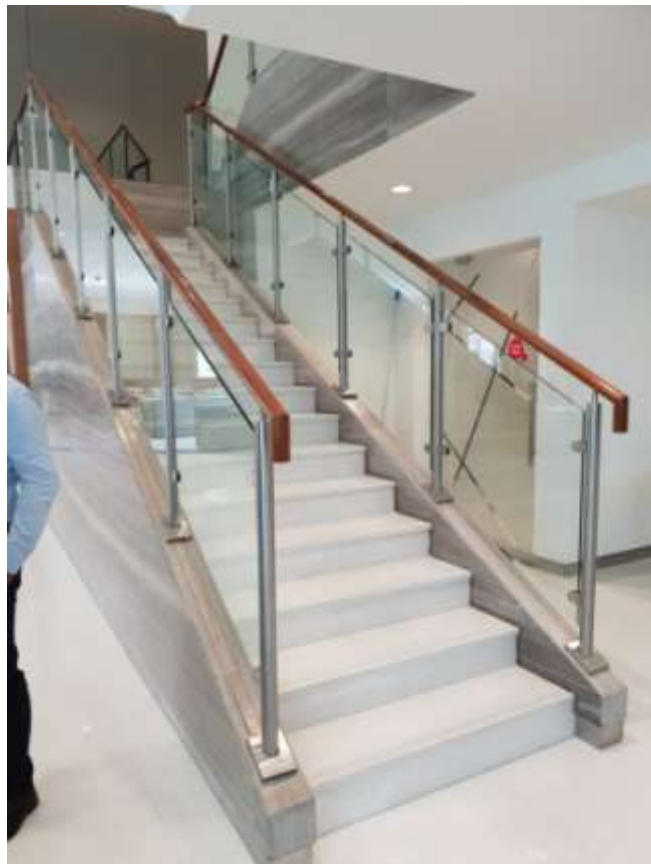
4.19 OOREDOO TOWER STEEL WORKS











4.20 LOVE MORCHINO AT MALL OF QATAR



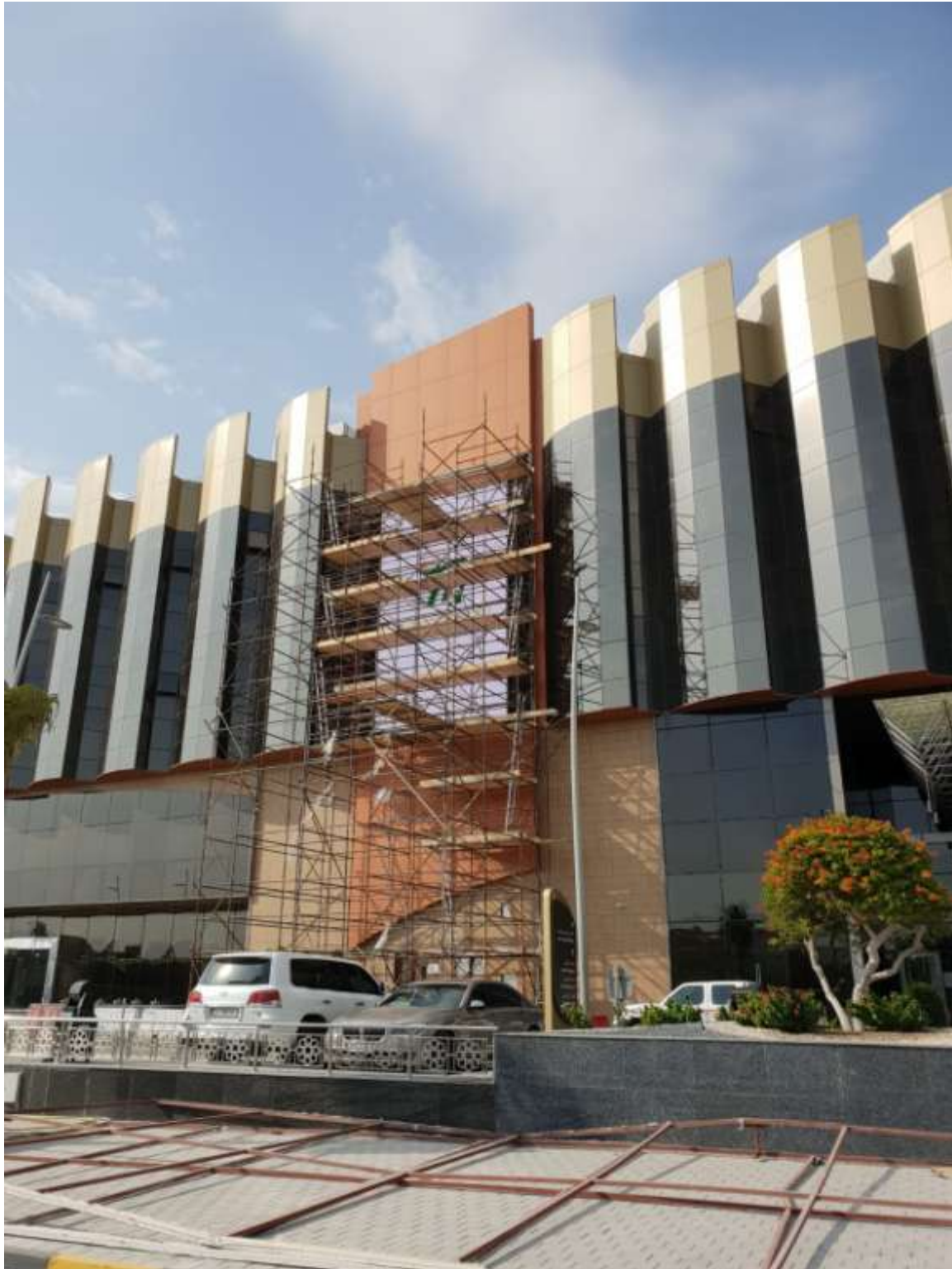
4.21 UNO CHICAGO GRILL AT MALL OF QATAR



4.22 KIPLING AT MALL OF QATAR



4.23 STEELWORKS FOR LED SCREENS AT TAWAR MALL











5.0 COMPLETED CERTIFICATES & RECOMMENDATIONS

Our ref: AO/2100/L-0039/15
Date: 01 APRIL 2015

VOGUE
DOHA QATAR
TEL: 4412 6610
FAX: 4412 7071

ATTENTION : MRS. ARWA ALSLEHAT - BUSINESS DEVELOPMENT MANAGER
PROJECT : WORK & SERVICES - FIT-OUT OF 21ST, 40TH, 41ST & PART OF
MEZZANINE FLOOR AT AL BIDDA TOWER
SUBJECT : COMPLETION CERTIFICATE

Mrs. Arwa,

We refer to the above project and our Subcontract Agreement No. SE/2100/L-0188/2014 dated 7th May 2014 entered into between us, M/s Salam Enterprises and M/s Vogue.

We hereby notify you that as of the date hereof 28 February 2015, Delivery of the deliverables and Completion of Works have been taken place in accordance with the requirements of Agreement.

This certificate is without prejudice to M/s Salam Enterprises rights and remedies with respect to any matters whatsoever or however arising or in connection with the Subcontractors performance of the Agreement (whether arising before or after the date of this certificate) and shall not relieve you of any on-going obligations under the Agreement at law.

Notes:

- The scope of works are deemed to be completed to the Satisfaction of SCDL, subject to the full clearance and completion of the outstanding snag list as agreed.
- Warranty and maintenance period of 400 days shall take 1st March 2015 in accordance to Contract agreement dated 7th May 2014.
- The above date will be subject to an adjustments if the defects noted during takeover have been rectified or further defects were revealed during the maintenance period which is required to be rectified in accordance to Contract Agreement.

Signed for and on Behalf of Salam Enterprises

Subcontractor



Ahmed Hassan
Projects Manager

Name: _____
Signature: _____

Tel: +974 4457 8521 | Fax: +974 4457 8524 | P.O.Box: 18415, Doha - Qatar | email: info@salamenterprises.com | Member of 





M/S SALAM INDUSTRIES
P.O. Box 22120, Doha, Qatar
Fax: +974 4460 0692
Tel: +974 7736 0177

Date: 26-February-2018

PROJECT COMPLETION CERTIFICATE

Client: SALAM INDUSTRIES
Project: Supply, Fabrication and Installation of Steel Supports for Wooden Cladding
Location: Development of ISF CPC-05

Description of Work:

Supply, fabrication and installation of Steel Supports for Wooden Cladding at ISF Control Center at Duhail Qatar

I hereby certify that the above work was done and perform according to the contract.

Date Inspected: 24th February 2018

Certified By:



(Signature)

COBAY TURAY

(Name)

PROJECT MANAGER

(Position)

Top Vogue Design and Contracting Company
Doha, State of Qatar P.O. Box 14044, Tel: +974 44600181 Fax: +974 42375282



M/S TAWAR MALL
P.O. Box 314, Doha, Qatar
Tel: +974 4437 9330
E-Mail: info@tawarmall.qa

Date: 11-April-2019

PROJECT COMPLETION CERTIFICATE

Client: TAWAR MALL
Project: Novo Cinema Lobby Structural Steel Ceiling Support
Contract / Quotation Number: QT-2019-025 R2
Location: TAWAR MALL – Novo Cinema Lobby

Description of Work:

Supply, fabrication and installation of Steel Structure to support the ceiling of Novo Cinema Lobby

I hereby certify that the above work was done and perform according to the contract.

Date Inspected: 10th April 2019

Certified By:


(Signature)

Ey Ehab Elbaz
(Name)

Construction manager
(Position)

Top Vogue Design and Contracting Company
Doha, State of Qatar P.O. Box 15885, Tel: +974 44880501, Fax: +974 42575252

LETTER OF RECOMMENDATION

We Scale Design & build advise that Top Vogue Company carried out a steel structure work and fit out works in Mirqab mall for flik cinema

Top vogue team was cooperative and performed a good quality of work and followed all the building rules and regulation with no issues

Yours truly,

SCALE DESIGN AND BUILD


سكيل لتصميم وتنفيذ الديكورات
SCALE
DESIGN - BUILD

LETTER OF RECOMMENDATION

We Scale Design & build advise that Top Vogue Company carried out a heavy duty steel work and fit out works in Lagoona mall for fik cinema & bosh service center

Top vogue team was cooperative and performed a good quality of work and followed all the building rules and regulation with no issues

Yours truly,

SCALE DESIGN AND BUILD


شركة التصميم والتشييد الديكوريات




July 6, 2019

Re: Top Vogue Company
Letter of Recommendation

To whom it may concern,

With well earned respect, Tawar Mall Management highly appreciate Top Vogue Company for their superb work in completing a heavy-duty LED Screen's Frame at our mall's façade.

The said project is the largest outdoor LED screens in the Middle East. The 8-screen setup, which is placed at prime advertising spots around the mall will cover a combined area of 800 square meters.

There is no doubt that Top Vogue Company can be commended for any size of similar work.

We value their professionalism and we look forward to continue to work with Top Vogue Company in the future.

Sincerely,

Raafat Tawab

Director of Operations & Administration

Tawar Mall





Letter of recommendation

We hereby Engineering Department of the Gate Mall advise that Top Vogue company carried out a heavy duty steel work and fit-out works inside the Gate for the past three years.

Top Vogue team was cooperative and performed a good quality of work and followed all the building rules and regulation with no issues.

Engineering manager



Enq. Ibrahim Siadi



6.0 HSE

6.1 Scope

The purpose of this HSE Plan is to set up and execute effective health, safety and environmental management in compliance with governing Corporate HSE Management Strategy, and supports the HSE execution plans developed for TOP VOGUE projects.

The TOP VOGUE HSE Plan is documented as succinct Guidelines. Each of the HSE Guidelines presents TOP VOGUE's interpretation of best industry practice and safe working rules to ensure that all operational works are carried out with health, safety and environmental protection as a paramount concern.

Each of the Guidelines within this HSE Plan should be used in conjunction with good working practices, in line with International HSE standards, and a full knowledge of the work being carried out. These rules and guidelines shall be considered the minimum standards and do not replace any law, rule or regulation of the relevant government authority.

Each of the HSE Guidelines shall be updated separately. This document therefore describes the framework for the HSE Plan and provides a guide to the latest revision of each of the HSE Guidelines.

6.2 Leadership and Commitment

A commitment has been made by TOP VOGUE to achieve a high level of HSE performance which will realize a step change in HSE in accordance with goals and objectives of the TOP VOGUE Corporate Executive Management. This commitment is part of the TOP VOGUE HSE Policy.

People at all levels in the TOP VOGUE organization are responsible for leading and engaging the workforce in meeting our health, safety and environmental goals and objectives. Project Leaders will be held accountable for accomplishing this by demonstrating correct HSE behaviours, by clearly defining HSE roles and responsibilities, by providing the required resources and by measuring, reviewing and continuously improving HSE performance.

The Project Management Teams will provide strong visible leadership and continuously demonstrate commitment to and allocate sufficient resources to

develop, operate and maintain, review and continually improve a project culture which empowers individuals to take responsibility for their safety and embrace and except nothing but responsible HSE behaviour.

TOP VOGUE Executive management empowers any individual member of the workforce, recognising an unsafe act or situation, to cause the situation to be corrected or halted if this cannot be achieved, without fear of penalty or dismissal. Examples of such situations are that the activity:

- Is being conducted without an adequate risk assessment or appropriate permit to work;*
- Is not in accordance with the HSE plan and approved procedures*
- Is not in accordance with the Golden Rules of Safety*
- Is not in accordance with the Host Government Agreement*
- Is not in accordance with applicable International HSE Laws*

- Cannot be conducted safely as a result of adverse weather conditions; or, Is perceived as unsafe, likely to cause an incident, cause unwanted environmental impact or any other HSE related issue.*

6.3 Implementation

Project Directors / Managers, Senior Site Representatives lead through example by:

- Committing to the concepts and sustainability of sound HSE management*

- Aligning with all levels of supervision to demonstrate commitment to HSE excellence through active and visible participation in the following:*
 - Management system implementation and maintenance*
 - Training and refresher training programmes with Client and appropriate third party personnel, and*
 - Management system assessments and site inspections of their own and other units*

- *Committing adequate resources to the timely implementation, maintenance, and improvement of management systems and associated procedures*

Managers communicate their expectations by:

- *Managers establish a plan and objectives for attaining, maintaining, and improving performance commensurate with the risk and for periodic, internal validation of the plan.*
- *Managers establish targets and achieve improvements in key health, safety and environmental performance indicators*
- *Managers and supervisors establish and communicate to the organisation clear roles, responsibilities, authorities, and accountabilities.*
- *Individuals are all appropriately trained and understand the expectations applicable to them.*

6.4 Accountability

- *Managers and supervisors evaluate HSE performance of their organisations and individual team members*
- *Individuals understand their HSE performance levels*
- *Managers establish processes to encourage employee and contractor involvement in HSE management and sharing of lessons learned and best practices within Project areas.*
- *Individuals actively participate in HSE performance improvement.*

6.5 Project HSE Plans

In addition to the HSE Plan which contains Guidelines for the execution of all TOP VOGUE projects the Project Management Team shall develop and implement a specific Project HSE Plan in accordance with TOP VOGUE Corporate HSE Standard.

The plan shall present TOP VOGUE expectations and specifies the minimum requirement for HSE. It is recognised that specific client/contract requirements may apply and as such suitable modifications shall be made to the plan where necessary. The HSE Plan shall define which of the procedures within this manual are not applicable or are superseded by Project specific procedures which are either already developed by subcontractors or must be developed to bridge the TOP VOGUE HSE management system with the requirements of Client procedures.

The structure of the plan is based on the thirteen elements of the TOP VOGUE Health, Safety and Environment Management Strategy which has been adopted for TOP VOGUE respective business management systems and total quality management systems.

The following presents the structure of Project HSE Plans, it is recognised that some variations may be necessary but these will generally be limited to the Appendices

1. ABBREVIATIONS AND HOLDS
2. INTRODUCTION
3. LEADERSHIP AND COMMITMENT
4. PROJECT HSE POLICY, OBJECTIVES AND TARGETS
5. PROJECT HSE MANAGEMENT, ORGANISATION AND RESPONSIBILITIES
6. SUBCONTRACTOR SELECTION, EVALUATION AND REQUIREMENTS
7. HAZARD AND EFFECTS MANAGEMENT
8. SAFETY RULES AND WORK INSTRUCTIONS
9. PLANNING AND IMPLEMENTATION
10. HSE TRAINING
11. OCCUPATIONAL HEALTH AND MEDICAL ARRANGEMENTS
12. MEASURING PERFORMANCE AND CORRECTIVE ACTIONS
13. MANAGEMENT REVIEWS
14. REFERENCES

APPENDICIES

- I. HSE KEY PERFORMANCE INDICATORS
- II. PROJECT HSE ORGANISATION CHART
- III. PROJECT HSE JOB DESCRIPTIONS AND COMPETANCY REQUIREMENTS
- IV. SUBCONTRACTOR HSE PREQUALIFICATION AND ITT QUESTIONNAIRE

- V. PROJECT HSE TRAINING PROGRAMME
- VI. PROJECT MEDICAL SCREENING PROGRAMME

ORGANISATION AND RESPONSIBILITIES

The purpose of this section is to provide an organisational overview of how HSSE efforts are controlled; including a description of the general responsibilities of persons indicated in the Project Organisation Structure is provided as Appendix V - HOLD.

As stated in the Project Golden Rules of Safety it will be communicated to each person during the induction process, tool box talks and general stand down sessions with work crews that each person on the project has the obligation and right to stop work that is being performed in an unsafe way.

Employee

The following supports the requirements of applicable HSSE requirements for the Project in the practical application of HSSE responsibilities.

The following general responsibilities are communicated to all employees during induction.

General Responsibilities

The employee has the responsibility to:

- Take reasonable care for the safety of themselves and other personnel who are at the workplace and who may be affected by any acts or omissions on their part;
- Comply with the safe working policies, procedures, practices and ISG 9 Golden Rules adopted by the Companies as part of the safe working system;

- *Co-operate with their employer in ensuring that their workplace is as safe and healthy as is reasonably practical.*
- *Report to their supervisor any hazard or potential hazard in the workplace or any incident, personal injury, accident or near miss that may have occurred during the course of the work to the supervisory staff immediately;*
- *Correctly use, store and maintain personal protective equipment issued for the protection of workers against workplace hazards;*
- *Follow all verbal or written safe work procedures, practices and directions;*
- *Observe all warning signs and notices;*
- *Attend toolbox meetings and pre start meetings.*

Authority

- *Prevent others from performing unsafe acts*
- *Request alternative work methods*
- *Request Job Safety Analysis*
- *Requisition of appropriate safety equipment*
- *Recommend alternative more appropriate safety equipment*
- *Tag out unserviceable equipment*
- *Isolate energy sources to prevent injury if safe to do so*
- *Bring to the attention of others during safety communication sessions any safety concern*
- *Ensure work colleagues, sub-contractors and visitors use the appropriate safety equipment and clothing.*

Supervisor / Foreperson

The Supervisor / Foreperson (CONTRACTOR and / or subcontractor) is responsible for overseeing the day to day activities and as a consequence are directly responsible for the practical application of HSSE requirements in the workplace.

General Responsibilities

The Supervisor/Foreperson is required to:

- Have an understanding of HSSE requirements for the project;
- Promote a positive safety culture;
- Instruct employees on the relevant safety standards to which they must conform;
- Ensure all work is progressed in a safe manner.
- Adhere to Golden Rules of Safety, JSA's and procedures;
- Respond positively to employee safety suggestions and take appropriate action to correct any unsafe conditions;
- Attend toolbox meetings on a weekly basis or after a significant event;
- Present Pre-Start Meetings on a daily basis;
- Release employees for safety training as required;
- Reinforce positive safety initiatives and behaviour;
- Implement disciplinary procedures when any employee fails to comply with responsibilities;
- Ensure that employees working for them have received all required HSSE Training

- *Take immediate action to address HSSE concerns*
- *Maintain tidiness of work area throughout duration of work activity*

Authority

Supervisors and foremen have the authority to require employees and subcontractors to attend to hazards likely to cause injury or damage to property or environment. Where the Supervisor is of the opinion that the potential for such hazard/s is imminent and the consequence is severe, the supervisor may require the activity to cease immediately and report the matter to the Site Manager.

Site HSSE Officer

The Site HSSE Officer provides specialist information to the project management team, field personnel and subcontract staff.

General Responsibilities

The Site HSSE Officer shall:

- *Provide field support to CONTRACTOR Construction Manager and Construction Supervision;*
- *Advise project and site personnel of the requirements of legislation, guidelines, Codes of Practice, Standards, JSA's and Method statements relevant to the workplace;*
- *Ensure the Project HSSE Plan requirements are consistently and comprehensively deployed on Site;*
- *Co-ordinate the workplace inspection program and assist with regular internal HSSE audits of the system and / or associated processes, procedures and work practices;*

- Assist in the development, implementation/delivery and revision of the HSSE induction and training programs;
- Assist in the identification, assessment and development of control mechanisms for hazards in the workplace;
- Assist in the investigation and reporting of incidents on Site;
- Ensure HSSE information is systematically disseminated to all personnel;
- Co-ordinate the collection, recording and analysis of HSSE data;

Site Manager

The Site Manager has the overall responsibility to ensure that Project HSSE plans are implemented through the use of prescribed processes, procedures and safe working practices and those supervisors, employees and subcontractors reporting to them are aware of HSSE policy and management's HSSE expectations.

General Responsibilities

The Site Manager plays a critical role at the interface of the planning and implementation phases of the HSSE Plan. The Site Manager shall:

- Ensure a safe working environment through the implementation of the project HSSE management system, Company policy, procedures and safe working practices;
- Ensure comprehensive risk management practices are engaged for hazards specifically relevant to the project;
- Demonstrate commitment through the effective allocation of resources and the active promotion of HSSE in the workplace.
- Allocate responsibilities for safety critical positions at the workplace and ensure those responsibilities are understood and carried out in compliance with the Project HSSE Plan;

- *Develop safe working practices for all potentially hazardous tasks where there is potential to injure persons or damage plant or equipment;*
- *Ensure all plant and equipment provided is relevant to the task, is well maintained and can be operated with safety;*
- *Establish procedures and facilities to manage first aid, fire fighting and emergency response capabilities;*
- *Ensure compliance with the relevant legislative, policy and Companies requirements;*
- *Ensure subcontractors are fully informed of HSSE requirements prior to establishing a presence on the workplace;*
- *Review subcontractor safe working procedures and HSSE Management Plans, where required, prior to approval to commence work on the project workplace;*
- *Attend toolbox meetings, HSSE and construction meetings on a weekly basis;*
- *Ensure all personnel are suitably qualified, experienced and trained to undertake their work activities in a safe manner;*
- *Ensure control measures are implemented and monitored to ensure effectiveness as part of the Continuous Improvement Process.*

Project Director

Project Director plans and directs the operational activities of the Project and is responsible for providing safe systems of work and a place of work that is safe. The Project Director ensure that project activities are planned and programmed and do not introduce or increase hazards to the workplace.

General Responsibilities

The Project Director shall ensure that adequate resources are available to:

- *Ensure legislative obligations are met and Company policy is effectively deployed to the operational areas through the planning process;*
- *Ensure resources are provided to the workplace that will result in a safe and healthy working environment;*
- *Develop a positive Safety and Environmental protection culture and foster behavioural change;*
- *Develop and implement Continuous Improvement Processes at all levels in the organisation.*
- *Provide visible commitment to a safe and healthy work environment by ensuring regular inspections are undertaken and participating in HSSE meetings and training as required;*
- *Ensure all incidents are documented via incident reports and investigations reviewed;*
- *Monitor and regularly review safety performance against predetermined targets;*
- *Ensure adequate training is provided for all employees in HSSE issues;*
- *Ensure adequate and competent supervision is provided taking account of safety needs;*
- *Take action to immediately rectify any unsafe situations or acts and undertake appropriate disciplinary action against persons who fail to fulfil their allocated OH&S responsibilities;*
- *Ensure safe work procedures are defined and documented for each task;*
- *Promote CONTRACTOR commitment to HSSE performance and improvement in dealings with Companies and subcontractor management.*

Toolbox Meeting

This is a meeting to discuss the tasks and related safety aspects with the work group and should be developed primarily as a way to impart and receive safety information and skills within the work group. The toolbox meetings will be held on a weekly basis.

Supervisors will proactively encourage attendees to contribute to the discussions.

In addition to these meetings involving discussions on forthcoming activities, topic specific briefings, and safety talks can also be included.

Toolbox safety talks are to be conducted weekly and should be used to promote safety focus. It is vital safety talks are presented in an effective and professional manner.

Representatives from CONTRACTOR Project team will be encouraged to participate while subcontractor organisations are required to attend and contribute. All attendees are encouraged to actively participate in these discussions.

- *Safety Talks duration is expected to be about 10 to 15 minutes, although this will vary according to the location, number of attendees and the topic under discussion.*
- *Issues identified for action during the previous meeting can be closed out;*
- *A proactive team spirit is fostered amongst representatives;*
- *Audit and inspection findings tabled for comment and discussion;*
- *Incidents and high potential near misses can be discussed and root cause identified;*
- *Personnel who have performed well are recognised.*

PROJECT INDUCTION & TRAINING

All new employees will be inducted prior to undertaking any workplace duties. Induction training is mandatory for all personnel working on or visiting the site.

The induction training package will be submitted to Companies HSSE Department to agree the package content. Once the offices and training center are complete, a more comprehensive training program will be implemented.

This program will be described in detail in the Project HSSE and Environmental Management Plans.

The Project Induction Training Program will cover the following topics:

- Project Introduction
- Security Arrangements
- Introduction to Golden Rules
- Accident / Incident Reporting
- Emergency Arrangements
- Housekeeping
- Discipline
- Heat Stroke
- PPE
- Plant and equipment
- Observation Card System
- Scaffolding
- Environmental Awareness

- Archaeology Awareness
- Social and Cultural Awareness

Personal Protective Equipment

Minimum PPE requirements are:

- Safety Glasses (rated as per BS EN 1661F OR ANSI Z87.1/CSA Z84.3).
- Safety Boots (rated as per BS EN 345 or ANSI M I/75 C/75)
- Safety Helmet (rated as per BS EN 397 or ANSI Z89.1)
- Coveralls, according to applicable BS EN 531A, B1, C1:1995 standards or better.
- For welding work, coveralls should also be rated to BS EN 470-1:1995 standard.
- Gloves appropriate to the task. (BS EN 420: 2003)

PPE shall be made available at no cost for all personal and required to be worn at all time while on site. Sub-contractors shall supply their own protective equipment, of the same PPE standards as above, and confirm requirements that employees and visitors will wear PPE when on site. A minimum of 2 pairs of coveralls and 1 pair of safety shoes shall be provided to each employee per year. The possibility of implementing an "Old for New" policy will be considered before main construction activities starts.

Managers and office staff will not be required to wear coveralls, however, should any office staff member be required to perform any physical work on site he shall be required to wear coveralls. Managers and office staff will be allowed to wear normal clothing but only of a type as approved by Companies. Managers and office staff required to visit the construction site will wear long sleeve shirts at all time. No nylon material clothing will be allowed on site at any time.

Appropriate glasses, which shall be worn over prescription glasses, will be provided to personnel who have a requirement to wear prescription glasses. Employees will not be allowed to wear prescription glasses, without over glasses, while on site.

Fall Protection / Safe Working at Heights

CONTRACTOR will comply with their 'duty of care responsibilities by identifying working at heights hazards and ensuring the risk of injury is either eliminated or reduced to an acceptable level, this will be achieved by ensuring:

- Approved personal fall arrest systems will be used when working at elevated levels above 2 metres when the work platform is not "green tagged" as per the Scaff-tag system or being lifted by any hoisting system.
- Fall protection, arrest systems and harnesses will be inspected prior to use and will display the appropriate inspection colour code for the relevant 6 month period.
- Personnel using fall arrest systems will have the relevant training.
- Only trained and endorsed personnel (scaffolders) will erect scaffolding.
- Lanyards shall be secured to a substantial structure, preferably directly overhead.
- All the above rules apply to persons working on level ground if there is potential for a fall of two metres or more.
- Persons working at height shall apply a 100% tie off principle through the use of double lanyards fitted with shock absorbers.
- Persons working in man lifts shall attach the lanyard in a way that bypasses the shock absorbers to prevent additional fall distances.

To enable efficient and safe commencement of works, contract procedures have been referenced to provide guidance requirements of the project. Where contract procedures do not exist the appropriate Safe Work Instruction shall be developed when required as additional risk contract.

Housekeeping

All CONTRACTOR work locations are to be maintained with the highest regard for good housekeeping practices. Although general housekeeping considerations are intended to include aspects of maintaining a well-organised work place, the safety aspect of these considerations is given the highest priority. Monitoring of housekeeping standards shall be carried out during area inspections in line with the Project Assurance Compliance schedule.

Lifting Gear

Lifting gear will be inspected by an approved 3rd party inspector on an annual basis and maintained with an appropriate colour coding system and registers. Colour coding will be done by a competent lifting person on a six monthly basis in accordance with the Project colour coding scheme.

Lifting equipment to be used for the lifting of personnel will be inspected by third party before first use and thereafter on a six monthly basis. It is however expected that items such as man baskets will only be used at a much later stage in the Project and then only in exceptional cases and after proper approvals, planning and assessment and mitigation of risks.

Lifting gear will also be inspected prior to use by work supervisor / foreman and / or rigging supervisor.

Any item of lifting equipment subject to repair or alteration will be re certified by an approved 3rd party inspector for use before being reinstated.

Crane Operations

All Project cranes will be operated and maintained in accordance with the manufacturers guidelines and BS 7121. All lifting that is performed with the potential capacity to exceed 80% of the crane rated capacity for the

configuration of the lift proposed, or if the lift is deemed to be critical as per definition, shall require a lift plan for the activity.

- Only qualified / approved operators can be authorised to operate cranes on the Project.
- Routine maintenance will be performed in accordance with manufacturer's specifications.
- A heavy lift register shall be used to record all such lifts
- For anything other than a simple lift a formal lifting plan will be required
- The Lifting and Rigging Superintendent / Supervisor will be provided with a copy of the NSL International Lifting and Rigging Handbook
- All lifting will be performed under control of the Project PTW Procedure. Permits will be discussed at the daily PTW coordination meeting

Cutting/Welding and Grinding

- Gas cylinders will be stored in a secure upright position with valve stems protected and separated from flammable and combustible substances.
- In-line check valves and flash back arrestors are to be installed in the oxygen and acetylene hoses between the cylinder regulator and the cutting or heating device.
- All welding cables will be completely insulated and ground connections will be secure to prevent sparking.
- Where applicable, a fire watch will be identified and assigned to any welding and/or cutting operation performed outside the safe welding area.
- Cylinder valves must be closed when not in use.

- Gas hoses must be connected with proper connections (O-Ring equipped fittings etc.). Wire, jubilee clamps, tape, string, etc. are not acceptable and will not be allowed.
- Gas hoses must be colour coded to allow the user to easily identify the gas in service. For instance, Oxygen hoses will be blue, acetylene will be maroon, propane orange etc.

Heat Stress

Because of the nature of the work and the location of the project, heat stress is considered to be a major exposure to those personnel involved in outdoor activities. To effectively manage this risk of heat stress the following will be implemented:

- Heat Stress awareness as part of the Project Induction;
- Causes and symptoms of heat stress discussed during toolbox talks and pre-start meetings;
- Ample potable water;
- A trained first aid team that can provide effective first response treatment to casualties suffering from heat stress;
- JSA's that identify heat stress risk prior to the work being undertaken;

Permit to Work

All work performed on the Project will be performed under control of a PTW system. Each PTW will be accompanied by a JSA and a toolbox Talk signature Sheet. All tasks will start with a toolbox talk where the PTW, JSA/RA and any other task activities will be discussed.

INCIDENT ANALYSIS AND REPORTING

The prompt reporting and thorough analysis of all accidents, incidents, near miss incidents and dangerous occurrences provides an important performance indicator and shall be done in accordance with contractual reporting requirements. The Incident

Report Form, as included in the Incident Investigation and Reporting Procedure, is to be used for the reporting of all injuries to personnel, damage to property and the environment. This includes all subcontractors or visitors to the worksites or offices.

CONTRACTOR encourages open and active incident reporting.

All incidents will be reported to Companies in accordance with the Incident Reporting and Investigation Procedure. In addition all incidents will be reported as statistical data in the weekly and monthly reports submitted to Companies.

The Incident Report may initiate a complete cycle inquiry, from the conduct of the root cause analysis, review of the accident or incident, corrective action implementation follow-up and Lessons Learned dissemination which will be conducted at Safety Stand downs, Toolbox Talks and Safety meetings.

Open information flows will be established between COMPANIES and CONTRACTOR to ensure lessons learned are implemented and cascaded.

The nature and extent of the analysis should reflect the actual outcome and potential significance of the incident. It is open to management at any time to initiate a higher level of analysis.

LOCAL REGULATIONS

This part will present the regulations as stated in QCS 2010 Section 1 Part 10 "Occupational Health and Safety".

10. OCCUPATIONAL HEALTH AND SAFETY

10.1 GENERAL

10.1.1 Scope

1 This Part specifies Health, Safety and welfare issues associated with construction practices employed in the execution of the Works.

2 Related Sections and Parts are as follows.

This Section Part 4 Protection
Part 11 Engineer's Site Facilities and;
Section 11 Occupational Health and Safety

1 It is the Contractors responsibility to implement an Occupational Health and Safety Management System meeting as a minimum the requirements of BS OHSAS 18001.

2 It is the Contractor's responsibility to conduct his operations in such a manner as to prevent injury to persons or damage to property. The Contractor shall take precautions for protection against risks and shall inspect Occupational Health and Safety conditions where the Works are being executed.

3 The Contractor shall conform to all Acts, Orders and Regulations made by any official authority with respect to Occupational Health and Safety.

4 The Contractor shall note that Occupational Health and Safety (OHS) shall be treated with high importance at all stages of the Contract. Contractor shall understand that the Contract Price includes the Execution Programme for provision and implementation of an Occupational Health and Safety Policy and Plan to ensure the highest standards are enforced throughout Construction, Pre-commissioning and Commissioning.

5 The Contractor's attention is drawn to the requirements of latest revision of Qatar Construction Specification – QCS, Qatar Law No.14 of the Year 2004 – The Labour Law, Qatar Traffic Law No. 19 of the Year 2007 and Environmental Protection Law No. 30 of the Year 2002. The Contractor is required to fully comply with the stated requirements relating to Occupational Health and Safety.

6 The Contractor shall ensure that Contractor Personnel and Subcontractor's employees comply with all requirements of latest revision of Qatar Construction Specification – QCS, Qatar Law No.14 of the Year 2004 – The Labour Law, Qatar Traffic Law No. 19 of the Year 2007, and Environmental Protection Law No. 30 of the Year 2002. Compliance with the standards shall be considered as a minimum requirement and Contractor shall establish additional arrangements as circumstances may require. Any failure by Contractor to obtain copies of that mentioned laws applicable to the Contract shall in no way relieve the Contractor from any responsibilities or obligation under the Contract.

7 The Contractor's Representative shall be responsible for all Occupational Health and Safety matters during the performance of the Work up to and including the Completion Date. The Contractor's Representative shall ensure that an effective Occupational Health and Safety management organization is maintained at all times to undertake the duties to comply with this requirement.

10.1.3 Contractor's Occupational Health and Safety Organisation Plan

- 1 The Contractor shall submit an Occupational Health and Safety Organisation Plan for Engineer's approval within Thirty (30) days of the start of the Contract.
- 2 The Occupational Health and Safety Organisation Plan shall provide the names, qualifications, experience and skills of all the Safety Team and key support staff.
- 3 The Contractor shall submit the names of the following to the Engineer for approval:-
 - (a) The details of its proposed Occupational Health and Safety Manager. The minimum education for the proposed Occupational Health and Safety Manager are but not limited to Degree, Diploma, Certificate, School and the ability to communicate with all nationalities, plus Professional OHS Qualification by Examination (NEBOSH, IOSH, OSHA, ... etc); Management Qualification, Relevant Training Attendance. The Engineer shall review the details and if necessary interview the proposed individual to assess his/her suitability for the position prior to giving approval for appointment. The Contractor is not permitted to execute any form of Work on the Worksite until such time as an approved Occupational Health and Safety Manager has been deployed on a full time basis to the Worksite. The Contractor shall not remove the appointed Occupational Health and Safety Manager without prior approval from the Engineer.
 - (b) Deputy Occupational Health and Safety Manager who is capable of performing all of the duties of the Occupational Health and Safety Manager in the event of his absence. The procedure outlined in Clause (a) above applies equally to the appointment of the Deputy Occupational Health and Safety Manager.
- 4 The Contractor shall appoint Occupational Health and Safety Officers and support staff in sufficient numbers to ensure the effective function of the Occupational Health and Safety discipline within the Contractor's organisation. The Contractor shall appoint and deploy full time on the Worksite one Occupational Health and Safety Officer for each and every 50 persons employed at the Worksite. For a less than 50 persons employed at the Worksite, a minimum of one (1) Safety Officer shall be present on site during all working hours each day throughout the Contract period. This is in addition to the Occupational Health and Safety Manager and his Deputy.
- 5 The Safety Officers shall have no other duties, either on-site or off-site, other than Occupational Health and Safety duties, and shall be exclusive to one site.
- 6 The Contractor shall ensure that each and every Subcontractor employed on the Worksite appoints suitably qualified Occupational Health and Safety staff to ensure the effective function of the Occupational Health and Safety discipline within the Subcontractor's organisation. The Subcontractor shall appoint and deploy full time on the Worksite one Occupational Health and Safety Officer for each and every 50 persons that they employ at the Worksite. Any Subcontractor that employs more than 100 persons will appoint an Occupational Health and Safety Manager. This is in addition to the Occupation Occupational Health and Safety Officers.

10.1.4 Reporting Accidents

- 1 The Contractor shall promptly report to the Engineer any accident whatsoever arising out of, or in connection with, the Works whether on or adjacent to the Site which caused death, personal injury or property damage, giving full details and enclosing statements of witnesses.
- 2 Promptly shall mean immediately where it impacts on the operation of the project and in all cases never more than 24 hours.
- 3 The Contractor shall implement arrangements for effectively managing any emergency incident that may occur as a result of Work and/or on the Worksite.
- 4 The Contractor shall make all necessary arrangements for emergency preparedness including, but not limited to, medical equipment and facilities, trained personnel, communication systems, transportation, search and rescue equipment.

10.2 CONTRACTOR OCCUPATIONAL HEALTH AND SAFETY PLAN

10.2.1 Contractors Occupational Health and Safety Plan

- 1 The Contractor shall prepare a Contract specific Occupational Health and Safety Plan (the "Safety Plan") and submit a Safety Plan to the Engineer for review and approval within thirty (30) days of the award of the Contract. The Contractor is not permitted to Work on the Worksite until such time as the Plan has been approved by Engineer.
- 2 The Safety Plan shall include the Contractor's proposals for the maintenance of safety on the Site. These proposals shall address the safety measures applicable with respect to all tasks to be undertaken in the construction of the Works.
- 3 The Safety Plan shall include the Contractor's proposals for accident prevention. Accident prevention shall include but not be limited to training, monitoring and review of safety related procedures, enforcement of safety related matters and promoting safety awareness.
- 4 The Safety Plan shall include a safety organisation chart showing the names and responsibility of all safety personnel deployed both on and off the Worksite to maintain acceptable Occupational Health and Safety performance of the Contract and the Work at all times, even outside the normal working hours, in particular night-time and holiday working. (refer to 10.1.3)
- 5 The Contractor is required to work in areas where dangerous concentrations of gases may be present in manholes, trench excavations and the like. It is the Contractor's responsibility to provide all necessary detection equipment and to ensure that, if toxic or explosive gases are found, adequate measures are taken to protect his staff, workmen and members of the public.
- 6 The Safety Plan shall be specific to one Contract.
- 7 The Contractor shall regularly review the suitability of the Safety Plan. The Contractor shall undertake a full formal review of the Safety Plan annually on the date of award of the Contract and submit the findings of the review to the Engineer within 14 days of that date along with an amended plan should any amendment be required.
- 8 The Safety Plan shall contain the Contractor's Occupational Health and Safety Policy. (refer to 10.2.2)
- 9 The Safety Plan shall detail the Contractor's approach to risk assessment and include a matrix showing the levels of risk and their acceptability.
- 10 The Safety Plan shall include the contract risk assessment and detail the arrangements for ensuring that it is updated to reflect any changes throughout the duration of the Work.
- 11 The Safety Plan shall detail the arrangements for undertaking job hazard analysis and ensuring that such analysis is included in each and every method statement.
- 12 The Safety Plan shall detail the management arrangements and standards to be used for each of the following:
 - (a) Scaffolding
 - (b) Suspended Working Platforms
 - (c) Fall Prevention and Fall Arrest
 - (d) Prevention of Falling Objects
 - (e) Excavations
 - (f) Electricity
 - (g) Structural Steel Erection
 - (h) Demolition and Dismantling
 - (i) False work and Formwork
 - (j) Reinforcement and Concreting

- (k) Cladding and Roof work
 - (l) Confined Spaces
 - (m) Lifting Appliances and Lifting Gear
 - (n) Mobile Plant and Vehicles
 - (o) Mobile Elevating Working Platforms
 - (p) Construction Lifts
 - (q) Machinery and Equipment
 - (r) Power Tools
 - (s) Hazardous Substances
 - (t) Hot Work and Welding
 - (u) Fire Prevention and Protection
 - (v) Access and Egress
 - (w) Housekeeping
 - (x) Warning Signs and Barricades
 - (y) Material Handling, Transportation and Storage
 - (z) Lock Out and Tag Out
 - (aa) Temporary Works
 - (bb) Temporary Facilities
 - (cc) Underground and Overhead Utilities
 - (dd) Working Over or Adjacent to Water
 - (ee) Working Environment
 - (ff) Personal Protective Equipment
 - (gg) Site Traffic Control
- 13 The Safety Plan shall detail the arrangements that the Contractor shall use to ensure acceptable Occupational Health and Safety performance of all Subcontractors that may enter the Worksite. It shall detail the arrangements for evaluating Subcontractors prior to them being contracted to undertake Work. It shall detail the methods that the Contractor shall use to monitor their work and the penalties that shall be imposed should acceptable standards not be maintained.
- 14 The Safety Plan shall detail the manner in which the Contractor shall review, approve and incorporate all Subcontractor Occupational Health and Safety plans, risk assessments and method statements and incorporate them into their Occupational Health and Safety management system.
- 15 The Safety Plan shall detail the arrangements that the Contractor shall use to ensure acceptable Occupational Health and Safety performance of all persons on the Worksite. In particular it shall detail the arrangements for penalties and disciplinary action that shall be taken should Contractor Personnel, Subcontractor employees or any other person on the Worksite not comply with Occupational Health and Safety requirements.
- 16 The Safety Plan shall detail the arrangements that the Contractor shall use to control and ensure acceptable Occupational Health and Safety performance of visitors and delivery personnel that may enter the Worksite.
- 17 The Safety Plan shall detail the Contractor's arrangements for effectively managing any emergency incident that may occur as a result of Work or on the Worksite. The detail shall include the facilities required for emergency preparedness.
- 18 The Safety Plan shall detail the arrangements for notification and investigation of any incident that may occur as a result of Work or on the Worksite.
- 19 The Safety Plan shall detail the arrangements for the Contractor's monthly performance reporting and incident reporting.
- 20 The Safety Plan shall detail the arrangements for assessing the general Health of employees and any job specific Health checks that may be required.
- 21 The Safety Plan shall detail the arrangements for self inspection and auditing that shall be used to monitor the Work.

- 22 The Safety Plan shall detail the arrangements for tracking and effectively closing any Occupational Health and Safety related nonconformity or deficiency that may be identified as a result of monitoring. Written records of inspection, auditing and tracking shall be maintained and made available to any representative of Client on request.
- 23 The Safety Plan shall detail the arrangements for ensuring that all Contractor Personnel and Subcontractor employees are trained and competent to undertake their work in accordance with the required standards. In particular the Safety plan shall detail the training and competence requirements for the following employees:
- (a) Supervisors
 - (b) Electricians
 - (c) Mobile plant and vehicle operators
 - (d) Crane and lifting appliance operators
 - (e) Riggers
 - (f) Excavation Supervisors
 - (g) Machinery operators
 - (h) Scaffolders
 - (i) Scaffolding Supervisors
 - (j) Confined space workers
 - (k) Confined space supervisors
 - (l) All persons working at height
- 24 The Safety Plan shall detail the training arrangements specify the type and nature of training to be given including but not limited to induction, pre-work briefings, tool box talks, general awareness training, skills training and formal training conducted by training professionals or agencies. Written records of the attendees, training given and assessment of competency shall be maintained by the Contractor and made available for inspection by any representative of Client upon request.
- 25 The Safety Plan shall detail the Contractor's arrangements for promoting the awareness of Occupational Health and Safety issues through notices, posters, newsletters, booklets, Occupational Health and Safety alerts and any other means. All such information shall be provided in the languages preferred by the training recipients of the training.
- 26 The Safety Plan shall detail the arrangements that the Contractor shall make to reinforce good performance. Such arrangements shall include incentive schemes to reward Contractor Personnel, Subcontractor employees or areas of Work that demonstrate exemplary Occupational Health and Safety performance.
- 27 The Safety Plan shall include details of all meetings that are held to specifically deal with Occupational Health and Safety issues. In particular the Contractor shall hold a monthly meeting chaired by the Contractor's Representative, which Client shall be invited to attend, with the following items on the agenda:
- (a) Suitability of the Contractor's Occupational Health and Safety organization for the on-going and planned Work;
 - (b) Effectiveness of the Contractor's Occupational Health and Safety management system;
 - (c) Significant areas of planned activity and associated risk;
 - (d) Method statement review and job hazard analysis planning;
 - (e) Tracking and closure of any identified deficiencies or nonconformities;
 - (f) Incident review;
 - (g) Occupational Health and Safety promotion planning;
 - (h) Training needs assessment;
 - (i) Auditing and inspection planning;
- 28 The Occupational Health and Safety Plan shall describe the Contractor's Safety Management System that will be used throughout and shall conform with all requirements defined within the Contract and related documentation The contents shall include but not be limited to the following:

10.2.6 Method Statements

- 1 As part of the Safety Plan the Contractor shall submit a Method Statement Schedule to the Engineer for approval no later than thirty (30) days from the start of the Contract.
- 2 The Method Statement Schedule shall define the Method Statements to be prepared for the Works and the target dates for their submission to the Engineer for his approval.
- 3 The Method statements shall address as a minimum the following:
 - (a) Introduction/Scope
 - (b) Location and Identification of the work covered by the method statement
 - (c) Permits and Licenses Required
 - (d) Specific Occupational Health and Safety Issues including Risk Assessments and Job Hazard Analysis
 - (e) Environmental Issues
 - (f) Quality Issues
 - (g) Responsibilities
 - (h) Sequence of Work
 - (i) Resources
 - (j) Drawings and Sketches
 - (k) Reference documentation
- 4 Method Statements are required for all operations including temporary works.
- 5 No work covered by the Method Statement shall begin until it has been approved by the Engineer.
- 6 For additional requirements relating to the preparation of method statements refer to Part 8, Quality Assurance and Section 11, Occupational Health and Safety.

10.3 SPECIAL SAFETY PRECAUTIONS

10.3.1 Permits

- 1 A permit-to-work system (Hot work, Excavation, Scaffolding & Electric work) shall be observed (correctly issued, Signed & Client requirement enforced) when undertaking any work on an existing utility, service, item of equipment or structure.

10.3.3 Mechanical Plant, Machinery and Equipment

- 1 Sufficient suitable standby plant shall be immediately available in cases where the safety of the Works or of personnel depends upon mechanical plant.
- 2 Test and thorough examination by a competent person of all equipment that is capable of storing energy, such as air receivers and pressure vessels, is required at periods not exceeding 12 months. Reports of such test and examination will be held on the Worksite and made available to the employer on request.

10.3.8 Lifting Operation

- 1 The Contractor will appoint a competent lifting operations supervisor for the Worksite. The lifting operation supervisor will ensure that the requirements of this specification are met at all times.
- 2 Rigging of loads and signalling of cranes will be undertaken only by trained and competent persons. All riggers will be required to wear a blue construction safety helmet and a red high visibility vest for the purpose of easy identification on the Worksite.
- 3 Cranes will only be operated by trained and competent operators who are in possession of an operator's license issued by a 3rd party. In addition appropriate Qatari driving licenses are required for all mobile equipments.
- 4 A thorough examination of each lifting appliance will be made by a 3rd party inspector at periods not exceeding 12 months and after substantial re-erection, alteration or repair. Load capacity to be displayed.
- 5 All lifting appliances on the Worksite will have a copy of the manufacturers operating manual and load rating charts available for use and kept with the operator cabinet or machine.
- 6 Before a mobile crane is positioned for a lift, attention will be paid to the condition of the ground upon which the crane will stand, as this will be subjected to high point-loadings from outriggers or tyres. Dependent upon the nature of the ground and/or the size of the crane to be used, a special hard standing may have to be prepared.
- 7 The maximum safe working wind speeds for all construction activity and in particular lifting operations and Working at height activity is 25 Knots. The construction will monitor the weather conditions and suspend work when wind speeds in excess of the maximum safe working speeds are anticipated.
- 8 Outriggers will be properly set and locked if a locking device is provided. When controlled remotely from the cab, the operator will make a physical check to ensure that each pad has an adequate bearing before a load is lifted. Sound timber packing or metal plates will be used under each outrigger pad to distribute the load. It is essential that outriggers are supported at the jacking points and not under the outrigger beams. Also, lifting location to be barrier off.
- 9 A method statement and job hazard analysis will be provided to the Engineer for all structural steel erection activity. No structural steelwork erection will commence prior to approval of the method statement and job hazard analysis by the Engineer. All structural steel erectors will be fully conversant with the construction method, sequence and hazard control measures prior to any work activity commencing.

10.3.9 Lifting Gear

- 1 Lifting gear means any chain sling, rope sling, or similar gear, and any ring, link, hook, plate clamp, shackle, swivel or eye bolt, used on the Worksite.
- 2 All lifting gear will be subjected to a thorough examination by a competent person from 3rd party at intervals not exceeding 6 months. Identity number and SWL to be check.
- 3 A wire rope used in raising, lowering or suspension of a load, will not be used if it is kinked, significantly rusted, the core is visible or the rope has visible broken wires, exceeding 5% of the total or in any length equal to 10 times the diameter of the rope.
- 4 Riggers will check the condition of lifting gear prior to each and every lift.
- 5 Any lifting gear that is found to be defective will be removed from service and sprayed with red paint to indicate that it is not to be used. All defective equipment will be removed from the Worksite.
- 6 A system will be established on the Worksite for storage of all lifting equipment not regularly in use. Such equipment will not be left in the work areas.

10.3.13 Working at Height

- 1 Contractors are required to reduce the risk of persons falling from height by providing a means of fall prevention or arrest for every person on the Worksite that is exposed to a risk of falling a distance of 2m or more.
- 2 Supervisors of persons using fall arrest systems will be trained in the correct installation, use and maintenance of fall arrest systems. Training will be provided by a 3rd party. All persons required to use fall arrest systems will receive formal training in safe working at height prior to using such systems.
- 3 The use of safety belts as part of a fall arrest system is prohibited.
- 4 Safe access to the point at which a person will attach themselves to a fall arrest system will be provided. In cases where a person using a safety harness has to detach the lanyard from the anchor point and reattach it to a different anchor point, whilst being in a position where the risk of falling exists, double lanyards will be used with one of the lanyards remaining attached to the anchor point at all times.
- 5 Where any form of fall arrest system is used the contractor will put in place arrangements to rescue any person that is caught by the fall arrest system. The rescue system and equipment will be capable of rescuing any person that may be unconscious whilst suspended and or suffering from suspension trauma. The system will be capable of rescuing the suspended person within 3 minutes of the fall being arrested.

- 6 All edges of working platforms and work areas that objects may fall from will be provided with securely fixed continuous toe boards that are at least 200mm high.
- 7 All holes and openings in floor areas will be fitted with temporary covers to prevent objects falling to lower levels of the structure.
- 8 Where work is ongoing on the exterior faces of structures the working platforms that are used to gain access will be fitted with lightweight mesh or netting to prevent objects falling from them.
- 9 Materials and equipment will not be stored or located within 2m of edges of working areas or platforms.
- 10 All materials and waste that may be blown by the wind from raised structures will be secured and stored in a manner that prevents them from being blown from the structure.
- 11 Where designated pedestrian walkways, entrances or exits are located beneath edges or openings where work is ongoing steel framed and sheeted canopies will be erected to protect pedestrians from falling objects.
- 12 The contractor will produce a method statement and job hazard analysis for all roof and canopy work activity. For work on new structures safety information will be obtained from the designers and incorporated into the method statement and job hazard analysis. For work on existing structures where design information is not available then a survey of the existing structure will be made to identify hazards such as:
 - (a) Fragile coverings
 - (b) Holes and openings
 - (c) Exposed edges
 - (d) Lack of safe access
 - (e) Damage or disrepair of the existing structure
 - (f) Adjacent structures, facilities or services
- 13 A method statement and job hazard analysis will be provided to the Engineer for all roof and canopy work activity. No work will commence prior to approval of the method statement and job hazard analysis by the Engineer. All roof and canopy installation workers will be fully conversant with the construction method, sequence and hazard control measures prior to any work activity commencing.
- 14 The contractor will meet the following roof and canopy work specific Occupational Health and Safety requirements:
 - (a) The storage of materials on roof surfaces will be minimized at all times
 - (b) Storage of materials on roof surfaces is not permitted within 2m of any edge or eave
 - (c) All openings and non walkable areas will be protected by barriers and signage to prevent pedestrian access
 - (d) All waste will be removed from the work areas on a daily basis and prior to any areas being left unattended
 - (e) All areas of roof or canopy covering will be fully fixed at the time of positioning. The practice of laying large areas of unfixed coverings is prohibited
- 15 The structure that the suspended working platform is attached to or mounted on will be surveyed and assessed to ensure that it is capable of supporting the loads that the equipment will impose on it.
- 16 The installation, maintenance, use and dismantling of suspended working platforms will be under the control of a competent person that is appointed by the Contractor. The competent person will be fully familiar with each and every type of suspended working platform in use on the Worksite. Persons who work from suspended working platforms will have received formal training to ensure the safety of themselves and of other persons that may be affected by the operation with particular emphasis on the correct use of the equipment, working at height and falling object prevention.

6.6 Personal Protective Equipment

The Personal Protective Equipment Guideline defines the types of personal protective equipment to be adopted on all TOP VOGUE Projects depending on the task/activities being undertaken. The PPE work instruction assists in ensuring that personnel are aware of the protective clothing and equipment provided for their use, its maintenance and when and how to use it. The present standard must be applied to all construction sites and must be considered as a minimum requirement.

Purpose

To assist in ensuring that personnel are aware of the protective clothing and equipment provided for their use, its maintenance and when and how to use it.

Scope of Work

The present standard must be applied to all construction sites and must be considered as a minimum requirement.

RESPONSIBLE PERSONS

All persons on site

All persons on site are responsible for:

- Wearing the appropriate protective clothing and using the correct equipment for the work in hand.
- Ensuring that protective clothing is maintained in a clean and serviceable condition.
- Reporting any defects to their Supervisor.
- Obtaining the advice of the Safety Representative / Authority or their Supervisor should the clothing / requirement be considered inadequate for the job in hand.

HSSE Department

The HSSE Department are responsible for:

- *Monitoring that protective clothing is being worn as appropriate.*
- *Providing advice on the use of all types of protective clothing and equipment.*
- *Ensuring that safe working practices are being enforced at all times.*
- *Ensuring that defective equipment is withdrawn from service and repaired.*

Supervisors

Supervisors are responsible for:

- *Ensuring that personnel are aware of the dangers of their work.*
- *Ensuring that personnel possess and use the required approved protective equipment and that it is in good order.*
- *Ensuring that personnel know how to use the protective equipment.*
- *Authorizing the exchange of defective items of equipment.*

INSTRUCTIONS

General

In general, all personnel when working or visiting any operating site outside office and accommodation areas shall wear protective clothing. The minimum requirement shall be as follows:

- *To be worn at all times*
 - *Safety Footwear*
 - *Coveralls*
 - *Safety helmet*

- *To be carried at all times for use when required:*
 - *Gloves*
 - *Eye Protection*

- *To be worn as appropriate depending upon the specific environment, the weather and working conditions:*
 - *Safety goggles*
 - *Ear defenders / plugs*
 - *Lifejackets*
 - *Waterproof clothing*
 - *Safety Wellington Boots*
 - *Special protective clothing / equipment*
 - *H2S escape mask and H2S personal monitor*

- *The following points should be noted:*
 - *Loose clothing can get caught in moving machinery.*
 - *All clothing should be correctly fastened, cuffs secured or sleeves rolled up.*
 - *Contaminated clothing should be washed or discarded.*
 - *Jewellery, particularly chains and other loose items, should not be worn for work on site.*
 - *Overalls (working clothes) and working boots are not allowed to be worn in living quarters, site restaurants, etc.*

NOTE: ALL PERSONAL PROTECTIVE EQUIPMENT SHALL COMPLY WITH A WELL KNOWN AND ACCEPTED INTERNATIONAL STANDARD.

USE OF STANDARD AND SPECIALIZED PPE

Safety Harnesses and Lifelines

Where a work site is such that a worker might be falling into the water or more than 2 metres and that it is not practicable to provide handrails, guards, safety nets, etc. a suitable safety harness together with its line, fittings and anchorage's should be permanently used. Safety belts are prohibited to use on operating sites.

Any person entering a confined space where there is potential for deficiency of oxygen or which contains toxic or noxious gases, must be fitted with a suitable safety harness and lifeline, in addition to a breathing apparatus (SCBA).

The free end of the safety line should be under the control of a second person, safely positioned outside the confined space, which must keep the wearer under constant surveillance and be ready to withdraw him immediately, should the necessity arise.

When the safety belt and lifeline are used, pre-arranged signals shall be used.

These are as follows:

SIGNAL	BY WEARER	BY ATTENDANT
1 pull	I am OK	Are you OK?
2 pulls	Pay out more line	I am paying out more line
2 pulls – pause – 2 pulls	Stop lowering, or paying out	I am stopping lowering, or paying out
3 pulls	Heave in slack line, or haul up	I am heaving in slack line or hauling up
Repeated, sharp pulls	Danger, help me out	Danger, come out at once

When signals are employed, they must be acknowledged by repeating the signal to show that it has been understood or is being acted upon.

Life jacket / Work vest

Where any person in getting to or from the place at which he is to work could fall into the water, and it is not practicable to ensure his safety by the means described above, that person must wear a suitable life jacket or work vest.

Emergency Showers and Bath

In all places where acids or corrosive fluids are used or handled, emergency water showers and / or eye baths are to be provided.

Additional or specialized PPE shall include in particular:

- *Ear defenders/ear plugs (for any area where the noise is over 85 dB)*
- *Safety goggles or face shields (for grinding, chipping, paint spraying, high pressure jetting etc.)*
- *High visibility clothing as required (banks man, person working near or on roads, etc.)*
- *Welding/burning shield (for welding or burning)*
- *Specialized gloves and hand protection (for rigging, burning, welding, handling chemicals, etc.)*
- *Specialized clothing for chemicals, cold or foul weather*
- *Aprons (for welding, chemicals etc.)*
- *Suitable respiratory protective devices (H₂S, other toxic gases, fumes, dust, etc.)*
- *Fire fighters equipment (boots, coveralls, helmets, face heat shields, gloves)*

- Suitable safety harnesses and fall arrest equipment
- Safety "Wellington" boots for working with irritant or corrosive chemicals
- Sun block creams.

Foot protection

Safety footwear as appropriate must be worn for all work on site. Safety footwear should be in good condition and free of grease / dirt. They should be constructed so as to prevent crushing and the soles must be non-slip, corrosion resistant, resistant to puncture, and be non-sparking. Footwear with exposed steel toe caps must be discarded due to the danger of sparking.

Safety Wellington's Boots should be worn for working with irritant or corrosive chemicals. They should not be worn on scaffolding or "slippery" surfaces.

Head Protection

Safety helmets must be worn at all times out with the administration and office buildings or in designated areas.

For non-operational sites the requirement to wear safety helmets must be indicated by the appropriate sign.

The painting of helmets or the use of the stickers is not recommended as chemical reactions could weaken the helmet and render it less effective. Metal helmets are prohibited.

Safety helmets which are used daily have a realistic life of about 3 years & should be replaced even if showing no obvious signs of damage, etc.

Coveralls

Coveralls must be worn if required by working conditions on the site.

Coveralls made of nylon material are prohibited. PVC coveralls may be worn when handling hazardous substances if appropriate. Apron protection is applicable to work in battery rooms.

Coveralls for personnel who have specific fire fighting duties etc. must be made of flame resistant materials.

Hand Protection

Protective gloves of appropriate type must be worn for:

Lifting, carrying and handling objects with sharp edges, rough or slippery surfaces or with protrusions such as splinters or nails.

Work where the hands may come into contact with surfaces of extreme temperature, either hot or cold.

The following gives examples of the types and uses of protective gloves:

Riggers gloves	General use
PVC/rubberized gloves	Handling chemicals
Thermal gloves	Cold work (e.g. N2) Electrical
Rubber gloves	work (live systems)
Leather gloves	Work with hot surfaces

NOTE: Gloves should be dry, particularly when handling very cold surfaces such as for dew point testing and work with refrigeration equipment.

Eye Protection

Eye protection must be worn whenever there is the appropriate sign.

Goggles or a face shield must be used for:

- Chipping, grinding, cutting or breaking of brittle material (concrete/stone/glass/metal or other hard materials) where particles may fly around. This requirement applies also to all personnel present in the vicinity.
- Paint spraying, air blowing, blast cleaning, high pressure water jetting.

- *Handling chemicals, during maintenance of chemical pumps/equipment or certain routine tasks such as draining, venting, sampling of chemicals.*
- *Sampling products from pressurized systems.*
- *Welding or gas cutting or assisting in these activities; the proper lens shade must be used.*

Ear Protection

Ear protection must be worn in areas indicated by the appropriate sign.

Type of ear protection should be available:

- *Ear defenders*
- *Ear plugs*

Even if not shown by the sign, ear protection should be worn in all noisy areas. In this context "noisy" (a mean attenuation of 85 dBa) if it is necessary to raise ones voice in order to be heard when talking to someone from a distance of 1 metre.

Respiratory protection

Definitions:

Airlines ("Cascade System")

Air lines with a full-face mask and air supplied via an airline from cylinders or a compressor. To be used to enable the wearer to work for long periods in a toxic or oxygen deficient atmosphere. The compressor's intake must be in an

unpolluted atmosphere. NORMAL PLANT SERVICE AIR MUST NEVER BE USED. Suitable filters in compressors must be used.

Self-Contained BA sets (SCBA)

To be used to enable the wearer to work for short periods in a toxic or oxygen deficient atmosphere. Used in emergency situations for search and rescue operations.

Canister Respirators

The respirator consists of a canister of absorbent material specific for certain atmospheres. Hence its use is very limited & must only be used when the concentration of toxic gas is low & the time exposure is short. They must not be used when there is a lack of oxygen. The manufacturer's instructions must be strictly followed.

They must not be used in enclosed spaces, tanks or vessels. Approval must be sought from Safety Representative / authority before using this type of respirator.

Dust Mask Respirator

Only suitable for mechanical removal of dust, or sprays from the atmosphere. They must not be used in toxic/noxious atmosphere or where there may be a lack of oxygen.

Note: after use, all respirators etc. must be decontaminated for hygiene reasons.

H₂S escape mask

Canister type escape mask should be used for evacuation only and not for rescue operation (SCBA), nor for working in H₂S environment.

Use

It is the responsibility of the site representative and the HSE Department to define the geographical areas in which specific respiratory equipment must be worn.

Testing of protective breathing equipment shall be done at least once a week, with the exception of air filters, made of coal absorbent such as those used in escape masks, because they are degraded by ambient humidity.

Air compressor(s) used to fill SCBA's or the Cascade System capacities should be able to operate on a continuous basis, and in particular the suction line of air compressor should be situated in a SAFE ZONE so as to avoid entry of contaminated air.

BIBLIOGRAPHY – UK Standards

As described in Section 4.1 all PPE must adhere to internationally recognised standards. The British standards below are given as examples.

BS 1397 *Specification for safety belts, harnesses and safety lanyards.*

BS 1542 *Specification for equipment for eye, face and neck protection against welding radiation.*

BS 1870 *Safety footwear.*

BS 2091 *Specification for respirators.*

BS 2092 *Specification for eye protection.*

BS 2653 *Specification for protective clothing for welders.*

BS 4275 *Recommendation for the selection, use and maintenance of respiratory protective equipment.*

BS 5240 *Specification for safety helmets.*

BS 6344 *Industrial hearing protectors.*

BS 7004 *Self-contained compressed air breathing apparatus.*

BS 7184 *Recommendations for the selection, use and maintenance for chemical protective clothing.*

HSE Guidance Notes EH 41 *respiratory protective equipment for use against asbestos.*

6.7 Work Platforms

PURPOSE

This guideline establishes minimum parameters relating to maintenance and use of vehicle mounted elevating and rotating work platforms. Project and subcontractor employees who operate this equipment must be trained in the safe use and inspection of the equipment.

SCOPE

Aerial devices include the following types of vehicle-mounted equipment that is used to elevate personnel to work places above ground:

Extensible boom platforms.

Aerial ladders.

Articulating boom platforms.

Vertical towers.

A combination of any of the above.

Aerial equipment may be made of metal, wood, fibreglass reinforced plastic (FRP), or other material; may be powered or manually operated; and is deemed to be an aerial lift whether or not it is capable of rotating about a substantially vertical axis.

This guideline does not apply to fire fighting equipment or to the vehicles, upon which aerial devices are mounted, except with respect to the requirement that a vehicle be a stable support for the aerial device.

Field modified aerial lifts must be certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, and be at least as safe as the equipment was before modification.

INSPECTION

An Independent Agency must inspect all Boom-Supported Elevating Work Platforms prior to their first use on site and at least annually thereafter.

In addition, they must be inspected by a Qualified Inspector of the Subcontractor prior to first use and at least monthly thereafter.

If a Boom-Supported Elevating Work Platform is removed from site and then returned, it must be inspected as described above.

A Qualified Operator must inspect all controls and safety devices each day prior to use. If any of the controls do not operate properly, they must be repaired before the Boom-Supported Elevating Work Platform is operated.

All mechanical and control repairs made to a Boom-Supported Elevating Work Platform must be performed according to the manufacturers recommendations and approvals.

OPERATOR QUALIFICATIONS

Project Management will implement a training program for authorization of Boom-Supporting Elevating Work Platform operators. All operators will meet the following requirements:

They must pass an oral test and demonstrate their ability to operate a Boom-Supported Elevating Work Platform. Only operators trained and qualified by a manufacturer's representative, or individual qualified as a trainer by a manufacturer's representative, may operate a Boom-Supported Elevating Work Platform.

They must demonstrate satisfactory operating skills for each specific type Boom-Supported Elevating Work Platform they will operate.

Supervisors are not allowed to operate Boom-Supported Elevating Work Platform equipment unless they have been trained as shown above.

Copies of the above documentation will be maintained on site by the HSE Department.

OPERATION

A Boom Supported Elevating Work Platform operator must always observe the following minimum safety precautions:

Operators must use safety harnesses with the lanyard attached to the platform.

Operators must work while standing on the platform floor, never on the top rail, midrail or toeboards; they may not climb out of the platform to an elevated work platform.

The maximum number of employees must not exceed the manufacturer's recommendations or the gross weight capacity limits for the Boom Supported Elevating Work Platform.

The basket may remain in the raised position to continue the work in progress while the equipment is moving only if the equipment is travelling at low speed on a firm and level surface. The basket must be lowered to the horizontal position and the boom fully retracted when the equipment is travelling from one work location to another.

Keep manufacturers operating instructions with each Boom-Supported Elevating Work Platform.

Trash and debris must not be allowed to accumulate in the basket of the Boom-Supported Elevating Work Platform.

Rigging is not allowed from the platform or boom. Only material which fits within the platform and is within the gross weight capacity of the Boom Supported Elevating Work Platform may be raised or lowered.

Prior to moving a Boom-Supported Elevating Work Platform into an area, evaluate underground conditions for stability, the possibility of damage to the underground facilities or injury to personnel.

Counterweights that rotate and extend beyond the undercarriage must be barricaded.

Follow the manufacturer's recommendations for maximum allowable loads and maximum loads and maximum boom lengths.

Make sure the equipment is shut down, there are no personnel in the basket, and a fire extinguisher is available during refuelling.

ENVIRONMENTAL CONSIDERATIONS

Hydraulic systems must be maintained to prevent leakage. If a leak or spill occurs in a hydraulic system, the spill must be cleaned up immediately in accordance with government and/or Project regulations.

LADDER AND TOWER TRUCKS

Before ladder trucks and tower trucks are driven on public highways, the aerial ladders must be secured in the lowered travelling position, use the locking device above the truck cab, and the manually operated device at the base of the ladder, or by other equally effective means (e.g., cradles which prevent rotation of the ladder in combination with positive acting linear actuators).

EXTENSIBLE AND ARTICULATING BOOM PLATFORMS

Boom and basket load limits specified by the manufacturer will not be exceeded.

Only trained, qualified persons will operate an aerial lift.

Tying off to an adjacent pole, structure, or equipment while working from an aerial lift is prohibited.

Employees will always stand firmly on the floor of the basket, and not sit or climb on the edge of the basket or use planks, ladders, or other devices for work position.

A body harness will be worn and a lanyard attached to the basket when working from an aerial lift.

Lift controls will be tested each day by a qualified operator prior to use to determine that such controls are in safe working condition.

The brakes will be set and outriggers, when provided, will be positioned on pads or a solid surface. Wheel chocks will be installed before using an aerial lift on an incline.

An aerial lift truck may not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for such operation.

Articulating boom and extensible boom platforms, primarily designed as personnel carriers, will have both platform (upper) and lower controls. Upper controls will be in or beside the platform within easy reach of the operator. Lower controls will provide for overriding the upper controls. Controls will be plainly marked as to their function. Lower level controls will not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.

The insulated portion of an aerial lift will not be altered in any manner that might reduce its insulating value.

Counterweight swing area must be barricaded if the counterweight extends beyond the carrier or tyres and creates a crush point.

Before moving an aerial lift for travel, the boom(s) will be inspected to see that it is properly cradled and outriggers are in stowed position.

The basket shall not come closer than 20 feet (6 meters) to energized electrical conductors without a permit. Baskets on most equipment do not have di-electric properties.

Baskets shall not be rested on piping, conduit, cable tray or similar structures. When refuelling is to take place, employees must bring the basket to the ground and exit the basket. After refuelling, lubrication levels, tyre pressure and all control functions are to be checked by the mechanic.

DEFINITIONS

Aerial Device - Any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel.

Aerial Ladder - An aerial device consisting of a single-or multiple-section extensible ladder.

Articulating Boom Platform - An aerial device with two or more hinged boom sections.

Extensible Boom Platform - An aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments will be considered to be extensible boom platforms when used with a personnel platform.

Insulated Aerial Device - An aerial device designed for work on energized lines and apparatus.

Mobile Unit - A combination of an aerial device, its vehicle, and related equipment.

Platform - Any personnel-carrying device (basket or bucket) which is a component of an aerial device.

Qualified Inspector - an experienced craftsman or engineer, who has demonstrated his or her ability or competency to inspect equipment.

Vehicle - Any carrier that is not manually propelled.

Vertical Tower - An aerial device designed to elevate a platform in a substantially vertical axis.

6.8 Scaffolding

PURPOSE

This guideline establishes a frame work for the implementation of Project instructions for the erection, inspection, and use of tube and coupler scaffolds. Scaffolds shall comply with, as a minimum, the provisions of all government and/or applicable safety standards.

DEFINITIONS

Competent Person - A crafts person, who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability or competency.

SCOPE

These requirements cover all Project and subcontractor personnel who perform work from an erected platform.

Scaffolds are intended to provide safe working positions at elevations. To eliminate fall exposure, scaffolds must have complete handrails, midrails, and decking. Fall arrest equipment (harnesses and lanyards) is to be used at all times on all scaffolds.

Note: The use of lanyards with a shock-absorbing device is required.

All scaffolds will be built in accordance with the relevant UK/EU standard or similar International Standard.

GENERAL REQUIREMENTS

Scaffolds may only be erected, moved, altered and dismantled by competent and experienced personnel or under the supervision of a Competent Person. Unauthorized workmen shall be subject to disciplinary action for modifying scaffolding.

Fall arrest systems shall be used while erecting, modifying, or dismantling scaffolds.

On scaffolds 6 feet (1.8 m) above the ground or floor, handrails, midrails and toeboards are to be installed and scaffolds completely decked.

- Guardrails shall be 2 x 4 inches (5 cm X 10 cm), or the equivalent, approximately 42 inches (1.0 m) high, with a midrail. Never use cross braces as substitutes for handrails or midrails.
- Supports shall be at intervals not to exceed 8 feet (2.4 m).
- Toeboards shall be a minimum of 4 inches (10 cm) in height.
- All planking shall be Scaffold Grade or equivalent. All scaffolds must be at least two (2) planks wide. No employee may work from a single plank. Scaffold planks must be secured from movement using #9 wires or the equivalent.

Before erecting and during dismantling inspect all components. Scaffold components shall be straight and free from bends, kinks, dents, and severe rusting. Immediately discard defective components.

When scaffold heights exceed three times the smallest base dimension (or 8 meters), it must be secured to a building or structure at the second lift and every other lift thereafter. Running scaffold is to be anchored every 30 feet (9 meters) horizontally at the heights established in the preceding sentence. "Outriggers" or guys may be used where it is impractical to secure the scaffold

to a building or structure. The footing or anchorage for scaffolds shall be sound, rigid and capable of carrying four times the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose bricks or concrete blocks will not be used to support scaffolds. 12" x 12" (30.4 X 30.4 cm) mud stiffs and base plates are recommended. When using levelling jacks, 3/4 of its length must remain inside the scaffold leg. Never use levelling jacks together with casters.

Scaffolds are to be capable of supporting at least four times the maximum intended load. Scaffolds WILL NOT be used to support piping from a jack stand placed on the scaffold, nor is a scaffold designed for employees to work from to be used as a support for any kind of material.

The poles, legs, or uprights of scaffolds shall be plumb and securely and rigidly braced to prevent swaying and displacement.

Do not stack brick, tile, block, or similar material higher than 24" (61 cm) on the scaffold deck.

An access ladder allowing safe access shall be provided. Climbing off the end frames is prohibited unless their design incorporates an approved ladder. To allow access to the working platform in this manner, the ladder built into the end frames may be used if uniform rung spacing between frames can be achieved. Tube frames that do not provide uniform rung spacing must be equipped with offset ladders for platform access.

When portable straight or extension ladders are used for access to tube and coupler scaffolds, the proper 4 to 1 slope shall be maintained to avoid a horizontal tube interfering with the use of the ladder.

Manila rope and No. 9 wire is not acceptable handrail material for scaffolds or elevated platforms.

Overhead protection shall be provided for men on a scaffold exposed to overhead hazards.

Where practical, the area beneath shall be barricaded and "Men Working Overhead" signs posted in all approach directions. Where persons are required to work or pass under a scaffold, a screen of 18 gauge, 1/2 inch (1.27 cm) wire mesh is required between the toeboards and guardrails.

ROLLING SCAFFOLDS

All wheels are to be locked while employees are on the scaffold or when the scaffold is not in motion.

No one is to ride on a scaffold that is being moved. Remove all loose materials and equipment from the deck before moving the scaffold.

Rolling scaffolds shall be used only on level, smooth surfaces, or the wheels must be contained in wood or channel iron runners.

All casters used with scaffolding shall be rubber tired and provided with a positive locking device to hold the scaffold in position. The 8" (20.3 cm) caster has a rated load capacity of 500 lb. When casters are used, however, this capacity should not be the load limiting factor of the scaffold.

Adjusting screws shall be installed only between base plate and vertical frame section. They shall never be used together with casters. Adjusting screws shall not be extended more than 12" (30.4 cm), with 3/4 of its length remaining in the scaffold at all times.

SCAFFOLD PLANKING

Scaffold planks are to be used for scaffold decking only. (2" x 10" or 2" x 12" (5 cm X 25.4 cm or 5 cm X 30.4 cm) scaffold grade material only will be used.) Scaffold planks shall be secured with #9 wires or the equivalent.

Nails are not to be driven into scaffold planks.

Scaffold planks are not to extend over their end supports more than 18" (45.7 cm) or less than 6" (15.2 cm) (except cleated). An overhang of 12" (30.4 cm) is preferable.

All planking on platforms shall be overlapped (minimum 12") (30.4 cm) or secured from movement.

Do not use cleated boards with the cleats turned up.

All scaffolding boards shall be in good condition. Splits or cracks are not permitted.

SUSPENDED SCAFFOLDS (SWINGING STAGES, FLOATS, ETC.)

Safety harnesses are required and are to be tied to a structure, (other than the scaffold), or to a life line (minimum 3/4" manila, 1/2" (1.27 cm) nylon life line having a minimum breaking strength of 5400 lb.) independent of the scaffold system.

Each individual will have access to an independent life line and shall wear a body harness and lanyard secured to the lifeline. On multi-tiered platforms, the persons on the lower sections will tie off to the platform itself.

Wire rope used for scaffold suspension shall be capable of supporting at least six times the intended load. It, and all attachment hardware, must be inspected before each use.

OVERHEAD PROTECTION

Overhead protection is required if employees working on scaffolds are exposed to overhead hazards. Such protection must be a two inch (5 cm) plank or the equivalent.

BOATSWAIN'S CHAIRS

Boatswain's Chairs will only be used under special circumstances with prior client approval and, then, only after a specific method statement and risk assessment has been completed.

The chair seat shall not be less than 12 x 24 inches (30.4 X 61 cm), and 1-inch (2.54 cm) thickness. The seat shall be reinforced on the underside by cleats securely fastened to prevent the board from splitting.

The fibre rope seat slings shall be of 5/8 inch diameter, reeved through the four seat holes so as to cross each other on the underside of the seat. Seat slings shall be at least 3/4-inch (1.9 cm) wire rope when an employee is cutting, welding or burning.

Employees are to be protected by safety harnesses as outlined in part 4 a. and b. above.

The object to which the tackle is anchored shall be securely installed, and all hardware inspected before each use.

SCAFFOLD INSPECTION

Scaffolding shall be inspected after erection or modification by a Competent Person and tagged per the guidelines below. They also must be inspected weekly by the Scaffolding Inspector.

Inspect, as a minimum, these components:

- Foundation or mud sill for stability
- Check for missing and/or damaged handrails, midrails, cross bracing and steel tubing.
- Check the ends of tubing for splits or cracks
- Before erecting and during dismantling, inspect all scaffold components. Those found with defects must be discarded immediately.
- Handrails, midrails, cross bracing, and steel tubing shall be inspected for nicks, especially near centre span, and indications where a welding arc has struck.
- Scaffold components shall be straight and free from bends, kinks, dents and severe rusting.
- Scaffold frame weld zones shall be inspected for cracks and ends of tubing for splitting or cracking.
- Manufactured decking shall be inspected for loose bolt or rivet connections and bent, kinked or dented frame. Plywood surfaces should be checked for softening due to rot or wear and peeling or laminated layers at edges. Safety plank should be checked for rot, cracks and other damage. Also, inspect the rod or bolt and cleat.

- Each quick-connecting device, whether spring, threaded connections or toggle pin arrangement, are to be inspected to see that it operates properly.
- Cams, springs, threaded connections, toggle pins, or other quick-connecting devices are to be inspected.
- Casters, if used, should be inspected for smooth rolling surfaces, free turning, free acting swivel, and to be sure that the locking mechanism is in good working order.

SPECIAL INSTRUCTIONS

- Any scaffold over 25' (7.6 m) high should have the access ladder turned inside the framing, and alternate sides of landing. (At no time will a person be required to climb the outside of a scaffold over 25', (7.6 m, high.)
- If welding is performed from any suspended platform, precautions must be taken to insulate wire rope attachment points.
- Design drawing must be made prior to erection and kept on site for any scaffold over 125' (38.1 m) high. (They must be made by a professional
- engineer competent in this field.)

TAGS

All scaffolds shall be tagged to properly identify their usage and in accordance with the following:

- Green Tag - Signifies the scaffold was built to meet scaffolding regulations and is complete and safe to use.
- Red Tag - signifies the scaffolding is incomplete and/or unsafe. It shall not be used.

TRAINING

Each employee who works on a scaffold will be trained by Project Training Department and the Scaffolding Competent Person to recognize the hazards associated with the type of scaffolding being used and to understand the procedures to control or minimize those hazards. The training will include, but is not limited to, the following:

- The nature of any electrical hazards, fall hazards, and falling object hazards in the work area and the correct procedures for dealing with these hazards.
- The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question.
- The employee will be re-trained if the Competent Person has reason to believe that an employee lacks the skills or understanding needed for safe work.

6.9 Ladders

PURPOSE

This guideline establishes minimum instruction for the proper use, inspection and training of Project employees whose job task requires the use of portable ladders.

Project Management is responsible for ensuring that all portable ladders available to employees are used and maintained in a safe condition.

All new ladders arriving on site shall be inspected by a competent person before issuing the ladders to the field.

SAFE USE OF LADDERS

To get maximum serviceability and safety, and to eliminate unnecessary damage of equipment, good safe practices in the use and care of ladder equipment must be employed.

Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used. Improvised repairs shall not be made.

When ascending or descending a ladder the climber shall face the ladder and keep both hands free and on the side rails. When working from a ladder the employee shall not work in a manner that requires both hands or to lean past the side rails to reach the work. When working six (6) feet (1.8 m) or more off the ground a fall protection system shall be employed. Only wooden or fibreglass ladders shall be permitted when there is a potential of electrical shock hazards.

Portable rung and cleat ladders shall, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one quarter of the working length of the ladder (the length along the ladder between the foot and top support). The ladder shall be so placed as to prevent slipping, and it shall be lashed in position. When lashing a ladder, it must be held securely in place by a co-worker while doing so. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.

Ladders with rungs or steps at the front side only shall not be used by more than one employee at a time. Where use by more than one employee is anticipated, specially designed ladders with rungs or steps on both front- and back-side shall be procured.

Portable ladders shall be placed so that the side rails have a secure level footing. The top rest for portable rung and cleat ladders shall be reasonably rigid and shall have ample strength to support the applied load.

Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked, locked, or guarded.

Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.

Short ladders shall not be spliced together to provide longer sections nor be used as guys, braces, or skids, or for other than their intended purpose. Tops of the ordinary types of stepladders shall not be used as steps. The back leg braces of step ladders are solely for increasing stability and not for use of climbing.

On two section extension ladders the minimum overlap for the two sections in use shall be as follows:

Overlap

Size of Ladder	feet	meter	feet	meter
Up to and including	36	10.9	3	0.9
Over 36 and including	48	14.6	4	1.2
Over 48 and including	60	18.2	5	1.5

Portable rung ladders with reinforced rails shall be used only with the metal reinforcement on the underside. No ladder shall be used to gain access to a roof unless to top of the ladder extends at least three (3) feet (0.9 m) above the point of support.

Portable ladders shall be fitted with safety shoes when the hazard of slipping is possible. Non-slip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used on oily, metal, concrete, or slippery surfaces.

TRAINING

Upon initial employment, all employees whose job task will have a potential to use portable ladders shall be trained on the Project requirements. The training information will also be periodically reviewed at Safety Meetings.

INSPECTIONS

A Competent Person shall inspect ladders monthly. This inspection shall be indicated by the colour-coded tape system. Employees using ladders must ensure the marking system remains legible between inspections. Ladders with illegible markings systems shall be considered unsafe and shall be removed from service.

The user shall inspect ladders daily and prior to each use. Those that have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Danger Do Not Use". Under no circumstances may ladders in need of inspection or repair remain in service or available for use.

Ladders shall be maintained in good condition at all times. The joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undo play.

Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance. Rungs shall be kept free of grease and oil.

If a ladders falls over it shall be inspected for side rail dents or bends, excessively dented rungs, all rung to side rail connections, hardware connections and rivets for shear.

USAGE

Type 1A ladders are recommended. No ladder rated at less than 250 pounds (Type 1) (113.4 kg) is allowed.

Only one person shall use a ladder at any time.

The "three point contact rule" shall be adhered to at all times when ascending or descending ladders, i.e. two feet and one hand or two hands and one foot.

Do not use metal ladders around electrical services or welding. Only nonconductive ladders (wood, fibreglass), may be used near energized electrical lines or equipment.

Painted wooden ladders are not permitted.

Job made ladders are not acceptable and their use is prohibited. All ladders shall be fit for their purpose.

Do not splice short ladders to make a longer ladder. Ladders and ladder sections shall never be tied or fastened together to provide additional length unless designed to do so. Nor shall sections of extension ladders be taken apart and used separately.

All straight and extension ladders must be secured (must be held until secured or tied-off) or held while erected and must be equipped with non-skid safety feet.

Ladders must not be placed against movable objects.

The base of the ladder must be set back a safe distance from the vertical - approximately one fourth of the working length of the ladder. Ladders shall be placed on stable and level footing.

Ladders used for access to a floor or platform must extend at least three feet (0.9 m) above the landing.

The areas around the top and base of ladders must be free of tripping hazards such as loose materials, trash, and electric cords.

Ladders that project into passageways or doorways where they could be struck by personnel, moving equipment or materials being handled, must be protected by barricades or guards.

Employees are to face ladders at all times while ascending, descending, or while working from the ladder. Never lean from side to side or away from the ladder. Keep both feet on the ladder rungs or steps. Do not place one foot on a line or piece of equipment and the other on a ladder rung or step.

Be sure that shoes are free of mud, grease or other substance which could cause a fall or slip.

Employees shall not carry tools, materials or objects in their hands while climbing a ladder. Use a hand line.

Always move the ladder to avoid over-reaching.

Stepladders must be fully opened to permit the spreader to lock (not folded up and used like a straight ladder).

Employees are prohibited from standing, working, or climbing on the top two steps of a step ladder. May not be used horizontally or as makeshift scaffolds.

Tools and materials shall never be left on the top of a ladder.

CONSTRUCTION REQUIREMENTS

All wood parts shall be sound, free from sharp edges and splinters, and free from shake, wane, compression failures, decay or other irregularities.

Uniform step spacing shall be not more than 12 inches (30.4 cm). Steps shall be parallel and level when the ladder is in position for use.

The minimum width between side rails at the top, inside to inside, shall be not less than 11.5 inches (30 cm). From the top to bottom, the side rails shall spread at least 1 inch (2.54 cm) for each foot (30.4 cm) of length of stepladder.

A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in their open positions shall be a component of each stepladder. The spreader shall have all sharp points covered or removed to protect the user.

For metal ladders rungs shall be corrugated, knurled, dimpled, coated with a skid-resistant material, or otherwise treated to minimize the possibility of slipping.

Note: The following types of ladders shall not be supplied:

Wooden Stepladders longer than 20 feet. (6 m)

Wooden Single ladders longer than 30 feet. (9.1 m)

Wooden Extension ladders (two sections) longer than 60 feet. (18.2 m)

Wooden Trestle ladders longer than 20 feet. (6 m)

Wooden Painter's stepladders longer than 12 feet. (3.6 m)

Wooden Mason's ladders longer than 40 feet. (12.2 m)

Wooden Trolley and side rolling ladders longer than 20 feet. (6 m)

Metal Platform ladders longer than 20 feet. (6 m)

Metal Extension ladders (two section metal) longer than 48 feet (14.6 m)

Metal Extension ladders (three section) longer than 60 feet (18.2 m)

DEFINITIONS

Extension Ladder - An extension ladder is a non-self-supporting portable adjustable in length. It consists of two or more sections travelling in guides or brackets so arranged to permit length adjustment. Its size is designated by the sum of the lengths of sections measured along the side rails.

Extension Trestle Ladder - An extension trestle ladder is a self-supporting portable ladder, adjustable in length, consisting of a trestle ladder base and a vertically adjustable single ladder, with suitable means for locking the ladders together. The size is designated by the trestle ladder base.

Ladder - A ladder is an appliance usually consisting of two side rails joined at regular intervals by cross pieces called steps, rungs, or cleats, on which a person may step when ascending or descending.

Qualified (Competent) Person - An experienced employee, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability or competency.

Rungs - Rungs are ladder cross-pieces of circular or oval cross sections on which a person may step when ascending or descending.

Sectional Ladder - A sectional ladder is a self supporting ladder, nonadjustable in length, consisting of two or more sections of ladder so constructed that the sections may be combined to function as a single ladder. Its size is designated by the overall length of the assembled sections.

Side-Rolling Ladder - A side rolling ladder is a semi-fixed ladder, non adjustable in length, supported to attachments by a guide rail, which is generally fastened to shelving, the plane of the ladder also being its plane of motion.

Single Ladder - A single ladder is a non-self supporting portable ladder, nonadjustable in length, consisting of one section. Its size is designated by the overall length of the side rails.

Special Purpose Ladder - A special purpose ladder is a portable ladder which represents either a modification or a combination of design or construction features in one of the general purpose types of ladders previously defined, in order to adapt the ladder to special or specific uses.

Stepladder - A stepladder is a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the overall length of the ladder measured along the front edge of the side rails.

- *Type I - Industrial stepladders, 3 feet (0.9 m) to 20 feet for heavy duty, such as utilities, contractors, and industrial use.*
- *Type II -Commercial stepladder, 3 feet (0.9 m) to 12 feet (3.6 m) for medium duty, such as painters, contractors, and light duty use.*
- *Type III - Household stepladders, 3 feet (0.9 m) to 6 feet (1.8 m) for light duty, such as light household use.*

Steps - Steps are the flat cross pieces of a ladder on which a person may step when ascending or descending.

Trestle Ladder -A trestle ladder is a self-supporting portable ladder, nonadjustable in length, consisting of two sections hinged at the top to form equal angles at the base. The size is designated by the length of the side rails measured along the front edge.

Trolley Ladder - A trolley ladder is a semi fixed ladder, nonadjustable in length, supported by attachments to a track, the plane of the ladder being at right angles to the plane of motion.

6.10 Steel Erection

PURPOSE

This guideline provides the parameters in which to ensure the safety of employees performing steel erection.

DEFINITIONS

Anchorage - a tie-off point capable of supporting 5000 pounds per person.

Christmas treeing - lifting more than one individual load with a crane's load hook.

RESPONSIBILITIES

It shall be the responsibility of the Project Manager to ensure that the project requirements are adhered to.

It shall be the responsibility of the project supervision to erect structural steel to ensure that the project requirements and applicable Country and Local regulations are adhered to during the erection process.

It shall be the responsibility of the Site HSE Manager to monitor the implementation and adherence and report violations and/or non-compliance issues to project management for immediate corrective action.

It shall be the responsibility of all employees to practice safe work habits and comply with the project requirements.

GENERAL REQUIREMENTS

Structural steel erection crews shall work under the direction of experienced foremen.

Workers shall not ride on loads being hoisted, nor slide down ropes, columns, or ladders.

Wire rope chokers shall be used to lift loads of structural steel weighing over 500 pounds (approx 225kg). Care shall be taken to avoid sharp bends in the rope by using softeners between the wire rope and the load. Reinforcing steel shall not be lifted by bundle ties.

If float scaffolds are used during steel erection, they shall be used in accordance with Project regulations.

The use of wire rope or similar material for temporary safety railing shall be discouraged. Planning and coordinating of timely steel shipments shall be arranged with vendors to maximize use of permanent perimeter protection (standard guardrail systems) as steel erection progresses.

The fall protection plan shall be strictly enforced and adhered to by all personnel.

Provisions shall be made to secure temporary flooring to prevent displacement.

All unused openings in floors, temporary or permanent, shall be completely planked or guarded.

Air hoses, extension cords and welding leads shall not be laid, or run through, walkways, stairways. In the event that an air hose, extension cord or welding lead must be run across a walkway it shall be covered or otherwise protected to prevent a tripping hazard or damage and interference with the source.

FLOORING REQUIREMENTS

Permanent flooring—skeleton steel construction in tiered buildings

Permanent flooring shall be installed as the erection of structural members' progresses, and there shall be no more than 30m between the erection floor and the uppermost permanent floor, except where the structural integrity is maintained as a result of the design.

At no time shall there be more than 50 feet or 15.2 meters, of unfinished bolting or welding above the foundation or uppermost permanently secured floor.

Temporary flooring—skeleton steel construction in tiered buildings

Temporary flooring such as the derrick or erection floor of every building shall be solidly planked or decked over its entire surface except for access openings. Planking, or decking of equivalent strength, shall be thick enough to carry the working load. Planking shall be no less than 5.08 cm thick, full-size undressed, and shall be laid tightly and secured to prevent movement.

On buildings or structures not adaptable to temporary floors and where scaffolds are not used, safety nets shall be installed and maintained whenever the potential fall distance exceeds 7.6 meters. Nets shall be hung with sufficient clearance to prevent falling objects from contacting structural surfaces below.

Floor periphery—safety railing: A standard railing including mid-rail and toe boards shall be installed 106 cm, high at the periphery (including all floor openings) of all temporary-planked or temporary metal-decked floors of tier buildings and other multi-floored structures during structural steel assembly.

Note: The use of wire rope for periphery guarding shall be discouraged. It may be used at the discretion of the Project Manager and the HSE Manager. Wire rope shall only be used when other means of periphery guarding cannot be used. Maintaining periphery wire-rope guards shall be done daily. No more than 7.6 cm of sag is allowed in wire rope railing. Proper planning shall include purchasing and installing the permanent guardrail system instead of a temporary system.

Where skeleton steel erection is in progress, a substantial tightly planked floor shall be maintained within 30 feet or 9 meters, below and directly under that portion of each tier of beams on which work is being done, except when gathering and stacking temporary floor planks on a lower floor in preparation for transferring such planks for use on an upper floor.

When gathering and stacking temporary floor planks, the planks shall be removed successively, working toward the last panel of the temporary floor so that work is always done from the planked floor.

Flooring—Other Construction

In erecting a building having double-wood-floor construction, the rough flooring shall be completed as the building progresses, including the tier below the one on which floor joists are being installed. For single-wood-floor or other flooring systems, the floor immediately below the story where the floor joists are being installed shall be kept planked or decked over.

STRUCTURAL STEEL ASSEMBLY

During final placement of solid-web structural members, the load shall not be released from the hoisting line until the members are secured with not less than two bolts, or the equivalent, at each connection and drawn up wrench tight.

Open-web steel joists shall not be placed on any structural steel framework unless the framework is safely bolted or welded.

In steel framing where bar joists are used and columns are not framed in at least two directions with structural steel members, a bar joist shall be field-bolted at columns to provide lateral stability during construction.

Where long-span joists or trusses 12.2 meters, or longer are used, a centre row of bolted bridging shall be installed to provide lateral stability during construction prior to slacking the hoisting line.

No load shall be placed on open-web steel joists until these security requirements are met.

Tag lines shall be used for controlling loads.

When connectors are working together, only one designated person shall give signals. That person shall make sure that all other people working in the area are in the clear. Each employee shall select a position that will prevent him from being struck by a swinging load.

When connecting lugs, etc., are bent or otherwise damaged, the damaged items shall be returned to the ground for repairs.

Areas below structural steel erection shall be barricaded and "Overhead Work" warning signs posted Pictogram type.

No load-bearing structural members shall be materially weakened by cutting, welding, or other means, except under the direction of a registered professional engineer.

More than one structural member in a lift shall not be allowed (treeing).

BOLTING AND PLUMBING-UP

General Requirements

Containers shall be provided for storing or carrying bolts and drift pins and shall be secured against accidental displacement aloft.

Pneumatic hand tools shall be disconnected from their power source, and pressure in hose lines shall be released before they are adjusted or repaired.

Airline hose sections shall be tied together except when quick-disconnect couplers are used. The quick disconnect (Chicago) couplings shall be pinned.

Eye protection shall be worn at all times during operations such as reaming, drilling, cutting, and welding and driving wedges, shims, or pins.

Bolting

When bolts or drift pins are being knocked out, means shall be provided to keep them from falling.

Impact wrenches shall be provided with a locking device for retaining the socket.

Plumbing-up

Connection points of equipment (i.e. turnbuckles, guys, etc.) used in plumbing-up shall be properly secured.

Turnbuckles shall be secured to prevent unwinding under stress.

Plumbing guys and related equipment shall be placed so that employees can access connection points.

Temporary bracing and/or guying shall be used to stabilize a structure until construction is complete.

SAFE WALKING SURFACES ON STRUCTURAL MEMBERS

Structural members with studs, dowels, or shear connectors installed on the top side shall not be used as walkways or means of access unless such studs, dowels, or shear connectors are covered with suitable material in such a manner as to provide a walking surface at least as stable and free of hazards as the top surface of the member without attachments. For purposes of this section, "stud" shall mean any protruding metal attachment.

ADDITIONAL INFORMATION

General

The potential for serious injury is high for workers engaged in steel erection and the installation and removal of decking, flooring and grating. Workers falling off structures or through unprotected openings represent the greatest hazards associated with this type of work.

General Precautions - Evaluate weather conditions before and during decking, grating, and steel erection. Gusty winds and slippery steel caused by rain significantly increase the potential for injury and may necessitate stopping work on steel. Consider wind effects on cranes.

Personnel - Employees performing this type of work must be experienced crafts persons who have demonstrated competency in steel erection work instructions.

Planning - Thorough planning is essential and is required for all steel erection, and installation and removal of decking, flooring, and grating. Consider the following factors when planning work:

- *Qualifications Of Personnel*
- *Rigging, hardware, e.g., Slings and shackles.*
- *Scheduling (identify responsibility, procedures, and timing for each task).*
- *Equipment, e.g. cranes, and boom-supported elevating work platforms.*
- *A proper erection sequence to decrease the hazard exposure, i.e. early erection of stair towers to provide access and egress as the steel is erected.*
- *Barricades, warning signs, and other protection for personnel and equipment.*
- *Availability and location of emergency equipment.*
- *Means of access, such as ladders and scaffolds.*
- *Tools appropriate to the task.*
- *Proper PPE.*
- *Detailed, specific job and safety instructions for each worker.*
- *Harness system, safety nets, and temporary platforms.*
- *Overhead obstructions.*

Connecting, Bolting and Guying Steel

Always use either decking, safety nets, or a tied off harness system to protect employees from falls. Harness systems (recommended) equipped with two lanyards, when properly used, allow steel workers to tie off 100% of the time.

Bolting Requirements

Permanent floors must be installed as the erection of structural members' progresses. At no time should there be more than 50 feet (15 meters) of unfinished, temporarily bolted or welded structure above the foundation or uppermost permanently secured floor. To meet this requirement, structures must be plumbed and permanently bolted as the steel is erected. This will be dependent on the design.

During steel erection, joints must be completely bolted. If this is not possible, the joint is to be flagged or otherwise identified as being "two-bolted" or incomplete. Any steel member must be "two bolted" (each end) as a minimum prior to being released from the lifting apparatus.

Column Climbing or Sliding

Climbing or sliding down columns is prohibited. Use ladders or Boom Supported Elevating Work Platforms to make connection points. To provide access to each level, install stairs equipped with guardrails at each elevation where steel is erected.

Preventing Falls

Straddle beams when moving laterally. Walk on the top of a beam only if it is too large to straddle.

Fall protection must be used at all times.

Protecting Lower Levels

Do not work directly over another person. This restriction protects employees at lower levels from being struck by falling tools, bolts, nuts, or other debris.

Barricades and Signs

Erect, tag, and maintain barricades on all elevations where employees are exposed to overhead work. Use "Danger - Overhead Work" signs in these areas pictogram type.

In high traffic areas, it may be necessary to post watchmen to keep unauthorized personnel out of barricaded areas.

Trusses

Securely tie or cross-brace trusses until permanent braces are in place. Securely bolt all steel before lines are removed.

Multi-Level construction

On multiple level steel constructions, provide properly secured ladders, scaffolds, stair towers, or other safe means to the protected floor level immediately below the area of connection. All personnel must use this means for safe access and egress to the protected floor or level.

Perimeter Protection

Install perimeter protection as each floor is erected. Install a safety railing or ½ inch (1.3 centimetres) wire rope or equivalent, approximately 42 inches (1 meter) high with a midrail approximately 21 inches (53.5 centimetres) high around the periphery of all temporary plank or temporary metal floors. Install toeboards as soon as practical.

Connectors

When connectors are working together, designate only one person to give signals. That person makes sure that his or her partner, or others working on the job, are in the clear. Each person must select a position where he or she cannot be struck by a swinging load. Connectors, like all other personnel, must practice continuous Fall Protection at all times. Standing on a spud wrench is not allowed. Connectors are to work from the side and stay out from under overhead loads. In some cases, it may be necessary to erect self supported platforms to facilitate making connections and not exposing the connectors to overhead loads.

Connecting Devices

A wrench or drift pin placed in a hole is not a reliable connecting device. A beam must be bolted so that it will not roll before the beam is cut loose from the hook

Precautions during Lifts

Observe the following guidelines when lifting a load:

Carefully observe the entire load during the lift to see that nothing gets in the way or fouls the line.

Stand in the clear when slings are loosened on a load of steel.

Do not take hold of the hoist rope near the sheave block.

Securely attach hooks or lashing for plumbing up before stressing the turnbuckle.

When a turnbuckle is under stress during plumbing, use a device to keep the turnbuckle from unwinding while under the load.

To prevent unscrewing, wire the turnbuckles when final alignment is made under tension.

Wire Rope Clips

Properly install and use the correct number and size of wire rope clips. A minimum of three clips is required on wire rope handrails. Because a rope diameter may decrease under tension, inspect wire rope clips and least one hour after installation to make sure they are tight. Inspect all wire rope clips weekly.

Guys

If suitable anchors are not available for guys, use properly placed “dead men” When lashing is used for guys, make sure the clips are tight and that there is at least one dead turn.

Decking and Grating

Before starting to install decking or grating, develop a plan that includes installation methods, fall protection, availability of erection drawings and qualification of personnel performing the work. The immediate supervisor must give detailed, specific job and safety instructions to each installer during the Risk Analysis meeting prior to the start of work.

Fall Protection

Provide fall protection for employees installing decking or grating and for any other employees authorized to be on the incomplete floor. Limit access to the area until decking or grating is in place and fastened. Workers constructing “leading edges” must be protected by guardrail systems, body harness systems, or safety net systems. Persons who are not performing “leading edge” work but are within 6 feet (1.8 meters) of unprotected sides or edges must also be provided with fall protection.

Post signs and barricades at stairways to warn of overhead work and incomplete floors and to keep unauthorized personnel out of the work area until decking and/or grating is installed and secured and guardrails and midrails are in place.

Install permanent handrails and midrails when the decking or grating work has progressed far enough to allow installation to begin. If permanent guardrail material is not on site, use cable or equivalent materials.

If pipe chase or equipment holes and similar openings are in the decking or grating, promptly cover them with hole covers or surround them with protective barricades. Do not create “traps” by leaving holes uncovered or leaving out pieces of grating or decking.

Observe the following guidelines when installing decking or grating:

- Sequence installation to eliminate excessive handling.

- *Hoist material to the floor with a forklift or crane. Lift short pieces in bundles.*
- *Place bundles so that they are stable and secure and pose no hazard to the workers.*
- *Erect the grating so that work is done from grating decking and not from the structural steel. Follow the sheet placement with the fastening operation.*
- *Use grating hooks to place grating.*
- *Once grating or decking has begun, it must continue until all decks, floors, handrails and midrails are installed.*

SAFE PRACTICES

Hazards associated with steel erection and with grating installation include falling objects, workers losing balance or being knocked off structures, pinch points, electrical shock (welding), burns, strains and sprains. It is essential that supervision give detailed, specific job and safety instructions to each worker at the Risk Analysis meeting prior to the work beginning and verify that the worker understands and follows the instructions.

The following rules apply to this type of work and should be included in the Risk Analysis instruction:

- *Use tag lines for controlling loads.*
- *Materials shall not be swung over employees not shall employees be allowed to walk, stand, or work under suspended loads. Accordingly, "treeing" or rigging more than one piece of steel from one crane hook at a time is not allowed.*
- *Crane operators shall sound their horn before swinging of the crane boom.*
- *Never ride loads under any circumstances.*

- Use appropriate PPE. Always wear gloves.
- Do not leave tools, bolts, washers, and drift pins lying on beams and scaffold platforms. Do not throw them. Place them in bolt baskets or other approved containers (not metal or plastic buckets), and raise them or lower them using a hand line.
- Do not overload bolt baskets.
- Tie-off bolt baskets, water kegs, and other supplies on the steel to prevent falling.
- When climbing ladders, do not hand carry any tools or materials.
- Take care when knocking out drift pins in order to avoid having them fall. Use rope straps or baskets to catch them. Leave drift pins in place until you are certain no one is below.
- When erecting steel, keep hands clear of pinch points.
- Where possible, use two wire rope slings on structural members over 15 feet (4.6 meters) in length. When steel must be tilted to drift it into position, it may be preferable to rig with one sling using a double wrap.
- Two workers should carry planks or long materials when it is necessary to cross stringers or girders.
- Have a firm footing when bolting with a hand or power wrench.
- Secure tools at all times when at elevation.
- If working over exposed vertical reinforcing rods cover or protect the ends of the rods.

IMPACT WRENCHES AND COMPRESSED AIR

The following rules apply when using impact wrenches and compressed air:

- *An air flow breaker is always required at the compressor or point of air supply. This excess flow valve shuts off the air supply going through the hose if a sudden volume of air is released from the hose because of hose separation.*
- *Make sure that the socket is properly attached to the impact wrench and that the impact wrench is equipped with a locking device to retain the socket.*
- *Use only flush fitting pins to secure the socket of an impact wrench. Nails or protruding wires may injure your hands or body.*

MATERIAL HANDLING, INCLUDING UNLOADING, STORING AND HANDLING STEEL

The following rules apply when handling, unloading and storing material: store steel on wood or other appropriate Dunnage and in a stable position. It is unsafe to place steel beams on loose or sandy soil without blocking them.

When steel and grating are delivered by truck, the driver must be out of the truck and standing clear when unloading. Before the load is lifted, personnel unloading steel must stand clear of the truck.

Material on trucks being unloaded should be removed in a manner that the steel cannot shift or be knocked off. All trailers are required to have standards on the trailer bed to prevent steel from falling off.

Use a minimum 6 foot (1.8 m) tag line on all loads.

When lifting a load of steel, make sure that all remaining steel or other objects will not obstruct the load.

When a crane is taking up slack in the lifting slings, keep hands away from the load and eyes of the slings.

7.0 LOCATION MAP

