

Daly Moreno II

Architecture / Aviation Design
Integrated Digital Delivery (IDD)
BIM Management and Collaboration

CCBM 22001

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Background

- Aviation design using ISO19650 collaborative workflows
 - Architecture for infrastructure projects, buildings and places.
 - Management of BIM for integrated digital design and delivery
 - Application of parametric design tools
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Experience Summary

Mott MacDonald / BIM Leader Asia

September 2022 - Present time, Hong Kong, - HKSAR

Chun Wo / BIM Manager (at Disney HK Arendelle site)

April 2021 - September 2022, Hong Kong, - HKSAR

WSP Asia / BIM Specialist, Associate

January 2019 - November 2020, Hong Kong, - HKSAR

Farrells Asia / BIM Architectural Designer

May 2017 - October 2018, Hong Kong, - HKSAR

AECOM Asia / BIM Aviation Designer

June 2014 - February 2017, Hong Kong, - HKSAR

PMDL Asia / BIM Architectural Designer

February 2012 - May 2014, Hong Kong, - HKSAR

Professional Experience

Company

Role

Responsibilities / Role
Description

Mott MacDonald Hong Kong Limited

BIM Leader Asia (September 2024 - Present Time), Kwun Tong, Hong Kong

BIM Manager (September 2022 - September 2024) Kwun Tong, Hong Kong

- Digital Delivery Plan to enable an integrated design delivery and smoother collaboration of BIM and engineering teams.
- Coordination with engineers, specialists, consultants and authorities for design approvals.
- Managing the flow of information from multiple design sources project-wide within the CDE (Common Data Environment) providing all stakeholders with a single source of truth
- Governance of the BIM design delivery team and oversight of checking and approval processes within the CDE (Common Data Environment) ensuring the right, updated information is available to the relevant teams at the appropriate time.
- Capability Building and assessment of BIM project staff's ability to produce BIM design authoring with the appropriate level of coordinated 3D geometries and information needed (LOD-I) for each project stage throughout the project lifecycle
- Contribute with design, documentation and technical writing of

specifications to support the company project deliveries and bids..

Key Project

(Project experience at Mott Macdonald)
Role

Project and Role Description

Value added / key achievements

Changi T5 International Airport

Jan 2023 – Jan 2024 | HK\$10b | Singapore
BIM Manager

Master Civil Consultancy (MCC) package created to provide engineering and BIM consultancy services for Terminal 5 of Changi International Airport. Responsible for 3D/Spatial Coordination. BIM was used to support design coordination, tendering, and drawing generation for MCC (Master Civil Contract) plus coordinate design interfaces with other T5 packages including MBC (Master Terminal Building Consultancy), Mega spine (Tunnels for access and service routing between facilities) and Ancillary Facilities (Electrical Substations, Ventilation Buildings, East Industrial Zone).

- Oversaw clash detection, model coordination, and data integration across architectural, structural, and MEP disciplines.
- Managed BIM coordination of the design interfaces in the T5-MCC package with the other packages of the project (MBC, Mega Spine and Ancillary Facilities)
- Created and Maintained a federated model combining 65 Information Models segregated under several systems and/or disciplines and/or project areas/zones and/or facilities.
- Facilitated the resolution of clashes and design issues such as clearances and statutory requirements by using BIM authoring tools and BIMCollab, a design and BIM Issue management platform.
- Managed information exchanges in the CDE to facilitate the collaboration of remote, multidisciplinary design teams in the joint venture and the client (CAG)
- Standardised information exchanges and approval processes in the CDE and established QA/QC protocols for model validation.

Company

Role

Responsibilities / Role Description

Chun Wo Development Holdings Limited

BIM Manager
April 2021 - September 2022, Hong Kong Disneyland

- Manage BIM process and integrate contractor's design.
- Coordination 2D CAD and models provided by subcontractors before final integration in federated models hosted at CDE
- BIM coordination sessions for each facility for model review and clash detection and/or resolution.
- Perform QA/QC and maintain/report model status regularly
- Develop/update/maintain BIM execution plan
- Staff training on the latest standard methods and procedures to create BIM deliverables

Key Project

(Past project experience at Chun Wo)
Role

Project and Role Description

Value added / key achievements

Arendelle: The World of Frozen – HK Disneyland

Apr 2021 - Sept 2022 | HK\$11b | Hong Kong
BIM Manager

This theme park area is part of the multi-year expansion plan of Hong Kong Disneyland, with multiple new attractions and associated engineering design challenges. Responsible for 3D/Spatial Coordination during the construction stage. Organized design reviews, presented BIM issue resolution during progress meetings, implemented client design directives and incorporated as-built BIM construction updates.

- Coordinated prefabricated roof elements within the digital environment at LOD-G 400 (that is, incorporated BIM files suitable for manufacturing created in Tekla into the federated model) and

provided detailed insights for the assembly and installation teams to review key project elements and check for buildability.

- Integrated 2D as-built inputs (DWG/PDF) and 3D/CAD files (Rhino) in BIM authoring file formats (Revit) for later incorporation to federated model in the CDE for 3D design review and coordination
- Enabled clash avoidance and clearance assessments during design review meetings using clash detection software for visual inspections and/or automated clash tests using rules-based search sets (or partially automated using selection sets).
- Oversaw QA/QC processes across the BIM team to ensure compliance with WDI's (Walt Disney Imagineering) EIR / design requirements and/or the BEP

Company

Role

Responsibilities / Role
Description

WSP Asia Limited

BIM Specialist / Associate

February 2019 - November 2019, Kowloon Bay, Hong Kong

- Integration of 2D as-built inputs (DWG/PDF) and 3D/CAD files (Rhino) in BIM authoring file formats (Revit) for later incorporation to federated model in the CDE for 3D design review and coordination
- Chairperson at BIM design coordination review meetings
- Creator and navigator of the latest federated model presented during project meetings with client for design and project reviews
- Responsible for BIM clash identification and resolution and Model Quality assurance (such as LOD-G / LOD-I)
- Technical support and BIM staff troubleshooting and/or training for BIM authoring tools and processes

Key Project

(Past project experience at Molen Design)

Role

Project and Role Description

[Pettirossi Airport Work Samples](#) 

Value added / key achievements

Silvio Pettirossi International Airport

Dec 2019 - Mar 2020 | Hong Kong - HKSAR

BIM Aviation Designer

Silvio Pettirossi International Airport (IATA: ASU, ICAO: SGAS) is an international airport in Luque, Paraguay, which serves Paraguay's capital city, Asunción, and indirectly serves other nearby cities. The airport is named after Paraguayan aviator Silvio Pettirossi. The government had plans to expand the capacity of the airport with the new Terminal 2 but unfortunately the project was shelved due to COVID-19.

- Created and modelled the Passenger Boarding Bridges (PBBs, a.k.a. jet bridges) used in the terminal.
- Produced preliminary design sections, plans and elevations derived from BIM for the passenger terminal building (PTB) and PBBs
- Used BIM tools to generate area schedules linked to a functional Zoning Floor Plan of the airport with Color Coding for each use.

Key Project

(Past project experience at WSP)

Role

Project and Role Description

Value added / key achievements

Taikoo Place elevated walkways - Quarry Bay

Feb 2019 - Nov 2019 | Hong Kong

BIM Manager

This Elevated walkway is a WSP collaboration with Wong & Ouyang and Hugh Dutton Associés. The system links the existing eight office towers in Taikoo Place with the two new office towers. The role included 3D/Spatial Coordination during the construction stage. organizing design reviews, presenting BIM and design issues for resolution during progress meetings and providing technical support on the modeling of complex parts and interoperability issues between Rhino and Revit.

- Creation and maintenance a federated model combining multiple disciplines including architectural panelling, structural concrete and steel parts, mechanical, electrical, and plumbing services.
- Scheduling and chairing of design review meetings with the use of said federated model to enable discussion and resolution of design

and/or building issues and errors before and/or during construction.

- Use of automated rules-based clash detection and tolerance tests to check for clashes and enough clearance between the bridge soffit / suspended ceiling and the MEP utilities.
- Use of BIM for 3D design reviews with the client's representatives and other contractors staff for discussion of construction and building issues and interfacing with other suppliers and resolution of MEP routing in tight spaces and/or through structural openings.
- Interoperability between the complex model geometry of the pedestrian bridge modelled in .3DM format with the BIM files for the structure and MEP systems created in .RVT format.

Company

Role

Responsibilities / Role Description

TFP Farrells Limited

BIM Architectural Designer

October 2017 - October 2018

- Develop, review and validate BIM models used for the design of Infrastructure & Transportation Projects
- Coordinate with civil, structural and MEP teams in the integrated design delivery of airport terminals and/or underground stations.
- Create visualizations and walkthroughs using BIM and 3D rendering tools for stakeholder presentations
- Manage the project BIM standard methods and procedures used during collaborative design work.
- Setup the project ISO19650-compliant common data environment (CDE), run QA/QC checks on the information exchanges, check the suitability status of digital files and run CDE approval processes.

Key Project

(Past project experience at Farrells)

Role

Project and Role Description

[SHSR Work Samples](#) 

Value added / key achievements

High Speed Railway Terminal Station (SHSR)

Oct 2017 - Oct 2018 | Jurong Lake District - Singapore

BIM Architectural Designer

The Kuala Lumpur–Singapore high-speed rail (HSR) is a proposed 350-kilometre train line linking Malaysia to Singapore. Responsible for managing BIM design authoring for drawing generation, rendering, Spatial Coordination and Cost Estimation at design and tender stages. Joint venture project with AECOM and Architects61.

- Led the façade design coordination and design liaison with local architectural partners in Singapore.
- Used BIM to verify constraint requirements and make revisions to address the client's visual appearance and/or technical issues
- Collaborated with architectural, structural and MEP teams in the façade design of eleven ancillary buildings with various functional and pragmatic requirements and urban context.
- Created and applied parametric BIM curtain walls and panels family systems in the ventilation towers suitable with the approach to the façade design with a modular approach in response to the specific building design requirements
- BIM authoring and drawing generation from the models for all the line-wide ventilation and ancillary buildings from the Singapore - Malaysia border to the terminus.
- Submitted design façade package drawings including the general arrangements, typical 1:50 sections and 1:5 details for the DB (Design-Build) tender drawing preparation.
- Created presentation materials for client reviews and acceptance.

Key Project

(Past project experience at Farrells)

Role

M+ (Mplus) Museum

May 2017 - July 2018 | HK\$6b | West Kowloon Cultural District - Hong Kong

BIM Architectural Designer

M+ Museum is WKCD's flagship cultural centre for contemporary art,

Project and Role Description

Value added / key achievements

comprising 60,000m² of modern space for exhibition, research and public enjoyment. Responsible for 3D/Spatial Coordination in collaboration with the Contractor's BIM manager during construction stage, identifying, tracking and resolving clashes

- Responsible for reviewing and validating the design intent from the BIM model prepared by the JV (Joint Venture) designers *Herzog and De Meuron* and *Farrells* with that prepared by the main contractor to review clash analysis and MEP services integration prior to construction.
- Since most of the reinforced concrete (RC) surfaces were intended to be fair faced (that is, exposed without additional cladding, plaster, or paint) a high level of BIM coordination was required for ABWF (Architectural Builder's Work and Finishes — particularly Builders Work Openings (BWO, also known as MEP Openings in walls and/or partitions), C&S works (Civil and Structural, particular for BWO's in structural elements) and MEP (Mechanical, Electrical, and Plumbing — particularly for HVAC and drainage systems).
- Revision and update of the original design model to improve clash avoidance and code compliance and later review of the federated model during BIM and Design Coordination meetings.
- Perform BIM QA/QC processes to validate data contained in the models and enable information exchanges with different disciplines and/or stakeholders.
- BIM model setup to enable quantity takeoff (such as door schedules and bill of quantities for interior design components) and facilitate transition to Asset Information Model (AIM).

Company

Role

Responsibilities / Role Description

AECOM Asia Company Limited

BIM Aviation Designer

June 2014 - February 2017, Hong Kong, - HKSAR

- Develop and manage 3D BIM models for airport terminals, control towers, hangars, airside facilities and other transportation and/or urban infrastructure projects ensuring spatial accuracy and design integrity.
- Coordinate multidisciplinary design elements (architectural, structural, MEP) using BIM to resolve clashes and maintain seamless integration across project phases.
- Ensure compliance with ICAO and IATA standards, incorporating aviation-specific safety, accessibility, and operational requirements into BIM deliverables.
- Support tender documentation and construction workflows, including quantity take-offs, builder's work coordination, and digital handover packages.
- Produce visualizations and simulations to communicate design intent to stakeholders and enhance decision-making during planning and design reviews.

Key Project

(Past project experience at Farrells)

Role

Project and Role Description

[Shek Wu Hui Work Samples](#) 

[Shek Wu Hui's Flyover Animation](#) 

Value added / key achievements

DSD's Shek Wu Hui Sewage Treatment Works

Oct 2014 - Oct 2016 | Shek Wu Hui, Hong Kong - HKSAR

BIM Architectural Designer

DSD's (Drainage Services Department) sewage treatment station in northern Hong Kong initiated in 2015 with the replacement of two of the 10 final sedimentation tanks by a new membrane facility building plus the addition of a new chemical storage room and modified bioreactor to achieve higher effluent quality. Responsible for 3D/Spatial Coordination and visualisation: BIM uses included design coordination and generation of realistic renderings and walkthroughs to promote public awareness.

- Creation of a BIM model of site infrastructure, landscape, buildings and technical equipment with realistic textures plus soft and hard

landscaping for use in project renderings and design animation (Flythrough / Walkthrough) for project visualisation by the client (DSD) and also the general public.

- Enhanced 3D coordination - DSD staff reported that automated clash detection processes have tripled the number of clashes identified (in comparison with manual drawing checks).
- Winner of the Autodesk Hong Kong BIM Awards 2016.

Key Project

(Past project experience at AECOM)

Role

Project and Role Description

[Boracay Airport Work Samples](#)

Value added / key achievements

Boracay—Caticlan International Airport

Oct 2014 - Mar 2016 | Hong Kong - HKSAR

BIM Aviation Designer

Caticlan Airport or Boracay Airport also known as Godofredo P. Ramos Airport (IATA: MPH, ICAO: RPVE) is an international airport serving the general area of the municipality of Malay, located in the province of Aklan in the Philippines. The airport is the fourth-busiest airport in the Philippines and the busiest in the Western Visayas region, serving 3.8 million passengers in 2023.

- Led the BIM interface coordination work that integrated the architecture of the airport with structural and MEP systems with a focus on clash avoidance design.
- Developed detailed 3D models of the passenger terminal and control tower as well as ancillary buildings.
- Integrated structural drawings and architectural details of the roof model (such as roof and surface drainage slopes) into a federated model where the roof design details could be further developed.
- Created the panel cladding on the main entrance façade portal plus all remaining façade enclosures using parametric BIM tools.
- Digital airport elements modelled included skylights, glass curtain façades, pedestrian elevated walkways and airport utilities such as aircon ducts, escalators, travelators, ticketing areas and baggage handling systems (BHS)
- Produced tender and preliminary design documents derived from BIM for the passenger terminal building (PTB) and air traffic control tower for DB (Design-Build) tenders.
- Verified BIM-based drawings were in compliance with ICAO and IATA design standards and were integrated into BIM deliverables.

Key Project

(Past project experience at AECOM)

Role

Project and Role Description

[Xiamen Airport Work Samples](#)

[Airbus Training Center Work Samples](#)

[Virus Viru Airport Work Samples](#)

Value added / key achievements

Value added / key achievements

[GZ Baiyun Airport Work Samples](#)

[Haeco Hangar Work Samples](#)

Audits and Bids for Airports and Aviation Infrastructure Facilities

August 2016 - February 2017, Hong Kong, - HKSAR

BIM Aviation Designer

AECOM and Molen Associates were in a joint venture to win airport design work in South East Asia and America and competed in a few bids for aviation projects in mainland China, Taiwan and South America plus a few hangars and even a flight simulation training centre. Other services included airside planning and auditing to evaluate long-term and short-term expansion strategies of an airport.

- Created renderings, walkthroughs, and diagrams from BIM models to support bid presentations and stakeholder engagement.
- Produced Visualizations and Presentation Materials highlighting the innovation aspects, operational efficiency, and user experience enhancements of the design bid proposal.
- Applied BIM automation tools to verify floor areas for an audit in the Terminal 2 of the Guangzhou Baiyun Airport
- Airport elements modelled digitally included skylights, transparent façades, curved roofs, sculptural structural elements, space frames, spatial trusses, pedestrian elevated walkways and airport utilities such as aircon ducts, escalators, travelators, ticketing areas and baggage handling systems (BHS)
- Created animations with walkthroughs and flyovers from 3D models

for public presentations and stakeholder engagement

Key Project

(Past project experience at AECOM)

Role

Project and Role Description

[2-Storey Hangar Work Samples](#) 

[GFS Hung Hom Work Samples](#) 

[GFS Cyberport Work Samples](#) 

Value added / key achievements

Company

Role

Responsibilities / Role Description

Alternative studies for the GFS headquarters Hong Kong

August 2016 - February 2017, Hong Kong, - HKSAR

BIM Aviation Designer

The government flying service of Hong Kong was studying alternatives for the location of their headquarters and was considering a few of the sites available. I was assigned with three of the possible locations for the GFS Forward Base that should be able to accommodate three helicopters and comply with ICAO Standards for heliport design such as taxiway clearances for rotor diameter, safety zones, fire safety and rescue facilities and emergency response planning and access routes.

- Innovative use of double-decker hangar with a Jet Lift ® to be able to accommodate the program at the small Wanchai site location.

PMDL Architecture & Design Hong Kong Limited

BIM Architectural Designer

February 2012 - May 2014, Hong Kong, - HKSAR

- Create and/or render architectural and interior design concepts.
- BIM modelling for architecture.
- Generate production drawings from the models for deliverables.
- Deliver non-model derived drawings – e.g. Standard Details or general notes drawings.
- Ensuring accuracy of construction documentation and drawing compliance with client CAD and statutory standards.
- Collaborate and coordinate with other disciplines.

Key Project

(Past project experience at PMDL)

Role

Project and Role Description

Value added / key achievements

Venetian Casino - DFS Grand Canal Shoppes

February 2012 - December 2012, Macau - China

BIM Architectural Designer

The Venetian Macao (Chinese: 澳門威尼斯人) is a hotel and casino resort in Macau. It is the largest casino in the world and the largest single structure hotel in Asia. It consists of a main 39-story hotel tower with 3000 suites with a podium base containing 150,000 m2 of retail space, 51,000 m2 of casino space plus a 15,000-seat Cotai Arena for entertainment and sports events. The DFS Grand Canal Shoppes are one of the podium wings with approximately 50,000 m2 of retail space. My role was to incorporate design concept plans and drawings from several major watch and fashion brands into BIM models for their respective stores within the Grand Canal Shoppes wing and produce statutory plans and elevation drawings from said models for the casino for later submission to the local building authority

- Complex interior design renderings for a few of the casino branded stores and luxury lounges for client presentations. Rendering work involved complex 3D modeling, texturing and image processing.
- Generation of a BIM template to increase the productivity of our statutory submission drawings.
- Creation of fire safety design phasing drawings using BIM data for the calculation of fire escape route lengths

Education

FAU - USP Universidade de São Paulo /

Bachelor in Architecture and Urban Design

Feb 1994 - Nov 2000, São Paulo - SP, Brazil

5 Years Course, equivalent to RIBA Part II

BSI Training Academy

Global BIM Manager Professional

Date of issue: 20/12/2021

Certificate number: ENR-01015617

Memberships

Council of Architecture and Urbanism - CAU/SP /

Registered Architect

June 2004 - São Paulo - SP, Brazil

Equivalent to RIBA Part III

CIC-HK Certified BIM Manager

CCBM Number: 22001

April 2022 - Hong Kong - SAR

Additional Information

Hong Kong Permanent Resident

Nationality: Brazilian. Date of Birth: 1967-08-16