해외 Project 수행 Process에 대한 이해
Index

1. Work scope and Manning
2. Team Manning & Mobilization
3. Work for The Client
4. Contractor Site Mobilization
5. Key Issue for Review and Approval
6. Field Construction Work
7. Administration
8. Case Study and Appendix
9. Lesson
### 1. Work scope and Manning

**Scope of Work**
- 발주 및 계약관리
- 공사관리
- 설계관리
- 원가관리
- 공정관리

**Partner**
- Design Consultant
- Cost Consultant
- Program Management
- Contractor (M/C, NSC)

**Type of Contract**
- PM
- CM
- C/S
- CM+C/S
- PM+CM+C/S
2. Team Manning & Mobilization _Initial Stage

- Team Organization
- Client Approval
- 제3국 직원채용 및 계약
- Visa & Work Permit 및 Agent
- Responsibility Matrix
- 현장 근무 규정
- 문서 및 전산관리 System
- 법인 및 지사 설립방안
- Account 개설
- Taxes 처리방안 및 Agent
- 직원숙소 관리방안 및 Canteen 운영 방안
- 차량 및 운전 면허
- 현지 의료보험
3. Work for The Client _Initial Stage_

- Kick Off Meeting
- PIP 및 PT
- Organization Chart
- Master Program
- Project PT
- Responsibility Matrix

- Procurement Schedule
- Financial Schedule
- Weekly/Monthly & Progress Report
- Meeting Schedule & Meeting
- 대관 업무
3. Tender and Contract for Construction Management

3.1 Tender Procedure
- Tender Schedule
- Tender Documentation
- PQ & Short List
- Tender Invitation (Bid Bond)
- Tender Open and Interview (현장설명)
- Tender Q/A
- Tender Close and Review
- Clarification & Nego
- Report to Client for Decision
- Contract Award (L/A, L/I 발급)
- Contract and P-Bond, A/P and AP Bond
3. Tender and Contract for Construction Management

3.2 Required Document for Tender Proposal

- Bill of Contract
- Alter Proposal (If Required)
- Bid Bond
- Technical Proposal
  - Temporally Facilities
  - Project Organization & Key personnel CV
  - Construction Equipment List
  - Manpower Mobilization Schedule
  - Construction Program
  - Q/A & Q/C Plan
  - HSE Plan
  - Construction Method Statement
4. Contractor Site Mobilization at Initial Stage

- Instruction for Commencement of the Work
- Site H/O and Possession/공사도서 발급
- Kick Off Meeting
- Review and Approval for:
  - Bond 부보( 이행보증,공사 및 근제보험)
  - Project Mobilization Schedule
  - Temp. Facilities Lay out and Plan
  - Organization Chart and Key Personnel
  - Construction Equipment Mobilization Plan
  - Initial Working Schedule( 3 moths. Rolling)
  - Emergency Contact Line
5. Key Issue for Review and Approval

- Master Program
- 각 시공 업체별
- 주요 공종 별 세부 공정
- 층별 혹은 Zone 별
- Weekly/ 3 Month. Rolling Schedule
- Progress Report/ Weekly/Monthly and
- Photographic Progress Report
- Material/Equipment Delivery Schedule
- Procurement Schedule

EX) Procurement Schedule Marble Work
Vendor Selection → Sample Approval → L/C→ (Shop Drawing(Design→ Submittal→ Approval)→
5. Key Issue for Review and Approval

Production ➔ Ex-factory ➔ In-Land ➔ Shipping ➔
Custom Clear ➔ In-land ➔ On Site & Inspection ➔
Installation (Master Schedule)

- Submittal Schedule (Sample, Catalogue, 기타)
- Shop Drawing
- Technical Data
- Local Authority Approval
- Construction Method Statement
- Safety and Environment Management Plan
- QA/QC Plan
5. Key Issue for Review and Approval

5.1 Construction Method Statement

- Temp. Facilities
- Site Access Plan
- Const. Equipment
- Site Transportation (V/H)
- Safety & Environment
- Hand Over Process
- NSC, DSC, NS
- Coordination and Management
- QA/QC Plan
- Logistic Control
- Design Management
- Program Management
- Admin & Doc. Control
- Site Security & Emergency Plan
5. Key Issue for Review and Approval

5.2 QA/QC Plan

- QA/QC Policy
- QA/QC Plan (품질운영 운영 방안 및 계획/조직)
- Site Mock-up and Sample 시공 계획
- Defect 관리 (DN, NCR)
- 공사중 혹은 완성 공사에 대한 Protection 방안
- Hand Over Process
- ITP(현장내외 검측, 테스트 계획)
- 공종별 QA/QC Plan
  (공정 진행에 따른 각 공종별 품질 관리 계획)
- QA/QC Coordination Meeting
5. Key Issue for Review and Approval

5.3 Safety & Health & Environment Control Plan

- Project SHE Policy
- Project SHE Plan
- SHE Plan and Risk Assessment for Each Trade
- Safety Inspection/Control/ Action Plan
- Training
- Violence/Enforcement/Promotion
- Safety Facilities
- Emergency Control Plan
- Accident Report
- SHE Coordination Meeting
5. Key Issue for Review and Approval

5.4 Design Management plan and Shop Dwg

- Contractor Design management Plan
- Shop Drawing Submittal Schedule
- RFI
- Document Control (수발급/Revision)
- As Built Record
- Design Coordination Meeting
5. Key Issue for Review and Approval

5.5 Design Management Plan (Design consultant)

- Design Management Plan
- Construction Dwg Issue Schedule
- Progress Follow up (Issue/Revision)
- RFI and Clarification
- Design Coordination Meeting
5. Key Issue for Review and Approval

5.6 Cost Control and Contract Management

- A/P
- Progress Payment (Review and Certify)
  - 지불 단계,승인,지급 방식 등에 대한 확정
- Engineer Instruction (Variation 등)
  - V/O, C/C, Deduction 등의 검토/승인 및 Status
- Final Account
6. Field Construction work Related with Field work

6.1 Review and Approval

- Proposed Construction Method
- Proposed Material & Equipment
- Proposed Shop Drawings
- Proposed SHE Plan and Risk Assessment
- Access Way and Logistics Control
- Proposed QA/QC Plan and ITP Plan
- Deliverables for Local Authorities Approval
- Hand over and T&C Process
6. Field Construction work _Related with Field work

6.2 Field Inspection and Instruction

- Inspection and Field Instruction
- Issue DN, NCR, Safety Violence
- Mock up sample/ Factory Visit
- Material/ Equipment Inspection
- Manpower Status
- Daily/ Weekly Report
6. Field Construction Work

6.3 Report & Coordination

- Progress Report
- Progress/ Safety/Quality/Design Coordination Meeting
- Site Walk Through (Progress/ Safety/ Quality)
- Hand Over/Take Over Inspection and Record (Test & Commissioning)
6. Field Construction Work

6.4 Meeting
- Internal Meeting
- Team Meeting
- Team Strategy Meeting
- Cost/Procurement/Design
- Contractor Meeting
- Daily Coordination Meeting
- Weekly Meeting
  (Progress, QA/QC, Safety, Design Coordination)
- Monthly Progress/ Safety Meeting
- Work shop
- Client Meeting
  - 공정, 발주, 설계, 원가 등에 대한 보고
7. Administration

- Report
  - Report to Client
    (Progress, Purchasing & Contract, Payment)
  - Report to H/O
  - Report to Local Authorities
- Design Record
- Contract Record
- Cost Control
  - Payment Status (Payment, Variation, CC)
- Progress Record
  - Progress Record
  - Historical Record
  - Photographic Record
7. Administration

- HR
  - Staff employ, Visa/Work Permit
  - Holiday Schedule
  - Work shop/ 회식/ Sport Game 등
- Accommodation/Trip/차량 및 비품 구매 관리
- 전산 시스템 관리(PMIS 등)
8. Case Study and Appendix

- 공정 회의 (MBS 현장 CMM, MCG, SSY 회의 자료)
- Method Statement (건축 골조)
- Design Management (RFI Logo)
- 공정관리 (4 Days Cycle, MEP HO Forecast)
- 월간 보고서 (중국 Holiday Inn Hotel)
- 공사 관련 Letter 사례
- 현장 소개 (MBS 현장 PT)
9. Lesson

- 영문 자료 수집(Format, Technical Data)
- Overall Process의 이해
- Cost and Design 관리
- 지역의 특성 및 제3국인 관리