

Eugene Courthouse Project BIM Experiences

"If I only knew then, what I think I know now!"

Project Summary

- Construct New 271,000 GSF Courthouse, Eugene Oregon
- Project Used "Design Assist"/First Generation Construction Manager as Constructor (CMc) Delivery Method
(aka GC/CM or CM/GC with a twist)
- Estimated Construction Cost \$70,000,000

Project Milestones

- AE Award - 3/01
- CMc Solicited - 11/02
- CMc Awarded - 5/03
- NTP Issued - 8/04
- Completion Scheduled for - 7/06
- Project is Currently on Schedule

Project Key Players

- Production AE – DLR Group
- Design AE – Morphosis
- Prime Contractor J.E. Dunn Northwest

BIM Used

- Morphosis Modeled Structure, Architectural, Non-Orthogonal Elements
- Morphosis Provided Sand Models of Structure
- Total Mechanical Used 3D for MEP Coordination
- Morphosis Model Used by Steel Fabricator, Skin Supplier, Casework Supplier
- Total's 3Ds Assimilated Fire Suppression, AV, IT, Furniture Plans
- Team Now Expanding Existing Models for Design Enhancements and Collecting Cx Data

Benefits

- Accurate Cost Forecasting
- Enhanced Ability to VE/Change In Design
- Reduce Owner Cost (When Models Used to Fabricate Materials (Steel, Skin, Casework, Piping, Electrical Assemblies))
- Reduced Change Order (5% Planned, <3% Experienced)
- Reduced RFI's
- Reduced Field Conflicts
- Enhanced Schedule Precision/Confidence
- Enhanced Teamwork/Partnering
- Paperwork Reduction and Resulting OH Savings

VULNERABILITIES

- Lack of National Standards
- IT/Software Compatibility
- Controlling Information Exchange (Confirming Updates/Changes)
- Inadequate Contract Language/Order of Precedence
- Liability Confusion
- Team Member Resistance
- Diminish Craft

Owner Considerations

- Use BIM Capacity/Capability as Source Selection Criteria (AE, GC and Critical Subcontractors)
- Address Liability via Regulatory Change, Indemnification, or Project Insurance
- Create Contract Specific Order of Precedence
- Contract Incentives that Optimize BIM

Would I Do It Over Again?

- ABSOLUTELY!
- ABSOLUTELY!
- ABSOLUTELY!