

JG GEIS CONSTRUCTION MANAGEMENT GUIDE

2011 - Present

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PROPRIETARY STATEMENT

THESE CONSTRUCTION MANAGEMENT PROCEDURES ARE PROPRIETARY IN NATURE AND THE SOLE PROPERTY OF JG GEIS OWNER'S REP AND SHALL NOT BE DISTRUBUTED OR USED BY ANYONE EXCEPT FOR EVALUATION PURPOSES ONLY.

THESE PROCEDURES SHALL NOT BE DISCLOSED TO ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT PRIOR WRITTEN CONSENT OF JG GEIS, HOWEVER, THE CONTENTS MAY BE PREVIEWED BY COLLEAGUES FOR PERUSAL.

SIGNED BY: _____

PRINTED NAME: _____

DATE: _____

DEVELOPMENT PREPARATION

ASPECTS TO CONSIDER PRIOR TO BUILDING PROJECT

- (1) Preparation of financial, accounting of MIS (Management Information Service) reports
- (2) Prepare project financial feasibility study.
- (3) Project Funding (obtain).
- (4) Local Governmental Regulations.
- (5) Environmental restraints.
- (6) Labor Agreements.
- (7) Collection of construction data on all significant projects throughout the region.
- (8) Estimate of probable project costs can be incorporated into the CM Plan.
- (9) Life cycle cost studies.
- (10) Energy studies.
- (11) Preliminary cash flow studies.
- (12) Project Funding: Preparation of documentation necessary to secure funding for the overall project.
- (13) Public Relations: PR activities, emphasize areas with respect to environmental issues and bankers development interests.

PROJECT START-UP GUIDELINES

- 1) This sets up a policy for team meetings and project coordination determining frequency of meetings and who will attend.
- 2) A list of applicable codes and standards by:
 - Texas Contractor's Law
 - Texas Worker's Compensation
 - Law Texas Employment
 - Security Law OSHA Standards
 - National Labor Relations Board
- 3) A statement of responsibilities and procedures for checking drawings and specifications.
- 4) A statement on managing a multi-employer worksite.
- 5) A statement for reviewing submissions to the Owner.
- 6) A description of procedures for stamping, signing, printing, delivering and storing drawings and other contract documents.
- 7) A description of how project files will be kept.
- 8) A system for recording, storing and retrieving incoming and outgoing information about key decisions concerning the project? This will also involve creating/storing data from consulting firms' involvement.
- 9) A compilation of standard forms, guidelines, checklist, and procedures to be used?
- 10) A statement for reviewing insurance and bonding requirements.
- 11) A Safety incentive program for sub-contractors to maintain accident prevention for both the employees and general public.

- 12) A safety policy guideline for sub-contractors.
- 13) A standard guideline for establishing risk management controls and quality control issues.
- 14) A system of establishing staff requirements, job duties and proper delegation of day-to-day operations.

PROJECT START-UP CHECK LISTS

The following project checklist is intended to inform team members about the activities of other participants. By obtaining a greater understanding of these tasks, one will reduce oversights of important elements in organizing the project responsibilities.

These checklists are to be used in the following manner:

ITEM:	Each task listed is identified by a specific Number and grouped into categories. Categories are based on functions, not on organizations or equipment.
TASK DESCRIPTION:	Task Descriptions are brief. Task that could apply to more than one category are listed only in the most appropriate category.
REQUIRES, YES OR NO:	Does the item apply to the project?
PRIORITY:	The project manager may establish a priority system; priority 1 may be all tasks that must be accomplished by the end of the first month of the contract. Priority 2 may be the tasks accomplished by the end of the third month. Priority 3 may be tasks projected for completion within 6 months after signing the contract, etc.
NOTES:	Refers to applicable procedures, building codes, specifications or legal agencies that may apply to the task.

The following index is a good starting point to develop department checklists and guidelines.

PART 1

INDEX START-UP

1. Project Office (PO) and Project Team (PT) Organization
2. Instructions and Procedures
3. Financial
4. Project Definition
5. Project Master Plan, Budget, and Schedule
6. Task Plans, Budgets, and Control
7. Work Authorization and Control
8. Project Evaluation and Control
9. Management Reporting
10. Contract Administration
11. Owner Furnished Equipment and Services (OFE)
12. Extensions — New Business
13. Project Records Control
14. Purchasing and Subcontracting Liaison and Policies
15. Computer Assisted Planning
16. Project Engineering
17. Equipment Start-up
18. Maintenance Equipment Support
19. Manufacturing Policies and Liaison
20. Reliability — Product Assurance
21. Engineering Documentation
22. Construction and Placement / Installation
23. Spare Parts
24. Site Technical Operations
25. Post-construction Site Administration Operations
26. Transportation & Logistics

PROJECT START-UP

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
1. PROJECT OFFICE (PO) AND PROJECT TEAM (PT) ORGANIZATION							
1.1.	Establish the Project Skill Requirements						
1.2.	Define the Objectives of the PO and PT						
1.3.	Define Specific Tasks to be Performed						
1.4.	Establish & Schedule PO Resource Manpower, Facilities, Material, etc.						
1.5.	Staff the PO with Personnel						
1.6.	Assign individual Task Responsibility						
1.7.	Prepare the PO and PT Organization Chart						
1.8.	Conduct the Management Meetings						
1.9.	Clarify Relationships with Team Members						
1.10.	Organize PO Personnel						
1.11.	Establish Personnel Hiring Policy & Control						
1.12.	Make Use of Extra-Divisional Functions, i.e. Technical Staff						
1.13.	Prepare Project Responsibility for Performance						
2. INSTRUCTIONS AND PROCEDURES							
2.1.	Establish Project Image, Logo & Letterhead, etc.						
2.2.	Establish a Project Instruction System Accounting Systems, Change Orders, Shop Transmittal, etc.						
2.3.	Shop Orders & Responsibilities						
2.4.	Documentation Issuance & Control						
2.5.	Scopes of Work Lists & Schedules						
2.6.	Technical Specifications & Duties						
2.7.	Trip & Conference Reporting						
2.8.	Project Technical Control						
2.9.	Engineering Documentation						
2.10.	Reporting System — Internal & External						
2.11.	Security Policy						
2.12.	Patents Policy						
2.13.	Drafting Policy						
2.14.	Purchasing & Subcontract Policy						
2.15.	Priorities & Emergencies						
2.16.	Scope and Funding Authorization Policy						
2.17.	Equipment Identification						
2.18.	Inspection Procedures — Internal & External						
2.19.	Material Ordering, Packing, Shipping, Logistics Policy, Due Dates & Storage Accommodations						
2.20.	Spare Parts Policy						
2.21.	Reliability & Product Guarantee Policy						
2.22.	Test Procedures & Acceptance						
2.23.	Project Meetings & Communication Media Tools						
2.24.	Field & Site Support Operations						
2.25.	Set up Project Master Files						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
3. FINANCIAL							
3.1.	Issue Master Contract Release / Award Contract						
3.2.	Establish Approved Contract; Stipulated Lump-Sum Amount, Cost Plus Fee, etc.						
3.3.	Develop Profit Trade-Offs on Incentive						
3.4.	Establish Projects Direct Budget						
3.5.	Establish Projects Indirect Budget						
3.6.	Issue Project Release Documents						
3.7.	Establish Project Funding Plan — Customer &						
3.8.	Obtain Marketing and Engineering Budgets						
3.9.	Establish Proposal Funding Policy						
3.10.	Establish Project Chart of Accounts						
3.11.	Set up Management Reserve Transaction Register						
4. PROJECT DEFINITION							
4.1.	Establish Approved Contract with Budget & Scope						
4.2.	List the Contract & Estimated Deliverable Items						
4.3.	Prepare Project Breakdown Schedule (PBS)						
4.4.	Identify Responsible and Performing Organization For Each Required Task						
4.5.	Correlate Project Chart of Accounts to PBS						
5. PROJECT MASTER PLAN, BUDGET AND SCHEDULE							
5.1.	Identify and Define Project Level Milestones and Interfaces						
5.2.	Prepare the Project Master Plan and Schedule						
5.3.	Prepare the Budget & Project Cost Performance Reports						
5.4.	Prepare Detailed Project Milestone Plan and						
5.5.	Identify the Critical Schedule Items						
5.6.	Establish Project Direct Labor and Other Source Requirements						
5.7.	Obtain Resource Availability Reports						
5.8.	Assure Project & Task Plans and Schedules are on Available Resources						
6. TASK PLANS, BUDGETS, AND SCHEDULES							
6.1.	Prepare Task and Subtask Schedules and Budgets						
6.2.	Prepare Task and Subtask Plans and Status Reports						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
7. WORK AUTHORIZATION AND CONTROL							
7.1.	Issue Approved Task / Sub-task Budget and Work Order for Each Task or Subtask						
7.2.	Prepare Initial Task / Sub-task Plan and Status for each Task or Sub-task						
7.3.	Issue Contracts or Purchase Orders for Outside Organizations						
7.4.	Release Shop Orders						
7.5.	Release Internal Work Authorization Documents						
8. PROJECT EVALUATION AND CONTROL							
8.1.	Institute Financial Reporting System						
8.2.	Institute Manpower Reporting System						
8.3.	Institute progress reporting System Initiate Weekly Updating of:						
8.4.	Task / Sub-task Plan and Status Reports						
8.5.	Task / Sub-task Labor Hour Variance Reports						
8.6.	Project Summary Material and Labor Variance Report Initiate Monthly Updating of:						
8.7.	Project Master Plan and Schedule						
8.8.	Project Cost Performance Reports						
8.9.	Project Labor Hours Status Chart						
8.10.	Project Material Cost Status Chart						
8.11.	Initiate Weekly Project Evaluation & Review Meetings						
8.12.	Institute Action Assignment Procedures						
9. MANAGEMENT REPORTING							
9.1.	Establish Management Reporting Procedures						
9.2.	Initiate Submittal of Monthly Mgt. Report on project						
9.3.	Initial Submittal of Monthly Reports & Distribute						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
10. CONTRACT ADMINISTRATION							
10.1.	Obtain Official Contract Documents						
10.2.	Define Contract Requirements						
10.3.	Clarify Type and Status of Contract						
10.4.	Establish Official Channels of Communication						
10.5.	Arrange for Overtime Forecasts and Approval						
10.6.	Clarify Security Requirements						
10.7.	Determine Contract Close-Out Requirements						
10.8.	Establish Proof of Shipment Requirements						
10.9.	Provide for Negotiations with MFG						
10.10.	Define Waivers Granted						
10.11.	Assure That Accountability is Maintained						
10.12.	Define Deliverable Items						
10.13.	Assure That Accountability is Maintained						
10.14.	Define Deliverable Items						
10.15.	Clarify with MTG. Acceptance Test Requirements						
10.16.	Institute a Project Public Relations Program						
11. OWNER FURNISHED EQUIPMENT & SERVICES (OFE)							
11.1.	Determine OFE Requirements						
11.2.	Determine Method of Submitting Requests to Owner						
11.3.	Establish Approval Requirements and Cycle						
11.4.	Identify Source of OFE						
11.5.	Issue Procedures to be Used in Obtain OFE						
11.6.	Clarify Method of Obtaining Funds for OFE						
11.7.	Establish Format and Procedures for Documentation						
11.8.	Institute Procedures for Negotiating Cost and Fee						
11.9.	Institute Procedures for handling OFE Spare Parts						
12. EXTENSIONS - NEW BUSINESS							
121.	Assign Responsibility for Project Growth						
	Establish Processing Procedures For: Establishing						
122.	Contract Extensions and New Business						
123.	Changes in Scope to the Contract						
124.	Establish Growth Objectives						
125.	Prepare Business Forecasts						
126.	Prepare Program Brochures, Papers, Articles						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
13. PROJECT RECORDS CONTROL							
13.1.	Determine Records Control Requirements						
13.2.	Physical Equipment, Space, and Personnel						
13.3.	Method of Control, Filing, Routing, etc.						
13.4.	Reproduction Methods and Requirements						
13.5.	Special Requirements for Classified Documents						
13.6.	Mail Distribution and Messenger Service						
13.7.	Central Facility and / or Satellite Offices						
13.8.	Procedures for Special Requests						
13.9.	Procedures for Out-of Plant Mail						
13.10.	Establish Standard Distributions						
13.11.	Maintain Significant Project Historical Data						
14. PURCHASING AND SUBCONTRACTING LIAISON AND POLICIES							
14.1.	Determine Major Subcontractors and Vendors						
14.2.	Establish Responsibility and Approval Cycles for Contractual Documents						
14.3.	Establish System to Monitor Subcontractor Cost, Manpower, Status, Progress, Problems, etc.						
14.4.	Establish Policy for Proposal Negotiation						
14.5.	Establish Policy for Changes in Scope						
14.6.	Provide Subcontractor Liaison						
14.7.	Comply with Small Business Requirements						
14.8.	Establish Make or Buy Policy (Mfg. & Purchase)						
14.9.	Develop procedures for Subcontractor Close-Out for Each Subcontractor or Vendor.						
	Determine.						
14.10.	Scope and Other Contractual Requirements						
14.11.	Contract Type and Status						
14.12.	Financial Status						
14.13.	Overtime Requirements and Approval						
14.14.	Security Requirements						
14.15.	Proof of Shipment Requirements						
14.16.	Procedures for Residual Inventory						
14.17.	Special Provisions						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
15. COMPUTER ASSISTED PLANNING							
15.1.	Define Functional Requirements of System						
15.2.	Provide System Needs						
15.3.	Establish Major Software Design						
15.4.	Indicate Major Inputs and Outputs Capability						
	Determine Performance Requirements for Major Performance Studies & Computer Simulations For:						
15.5.	Accuracies						
15.6.	Errors						
15.7.	Reliability & Redundancy Requirements						
15.8.	Deployment						
15.9.	Strategy						
15.10.	Environmental Factors (Natural & Artificial)						
15.11.	New Techniques						
15.12.	Man / Machine Considerations						
15.13.	Priorities						
15.14.	Trade-offs						
15.15.	Alternate Approaches						
15.16.	Establish System growth Objectives						
15.17.	Establish Plans for System Improvement						
15.18.	Deliverable Computer Programs						
15.19.	System Integration						
15.20.	Establish Technical Performance Reserves						
12.21.	Prepare Functional Operational Costs						
16. PROJECT ENGINEERING EQUIPMENT SPECIFICATION ISSUES:							
16.1.	Design						
16.2.	Performance						
16.3.	Environmental						
16.4.	Concept Approval						
16.5.	Design Approval						
16.6.	Interface (Input-Output)						
16.7.	Drawing						
16.8.	Reliability						
16.9.	Test						
16.10.	Site Support						
17. EQUIPMENT START-UP							
17.1.	Prepare Start-up Schedule						
17.2.	Compile Vendor Specifications						
17.3.	Write Test Specifications						
17.4.	Release of Purchase Orders						
17.5.	Establish System for Drafting Follow-up						
17.6.	Establish System for testing Equipment						
17.7.	Write Reports (Status, Technical, etc.)						
17.8.	Equipment Power Requirements						
17.9.	Test Equipment						
17.10.	Test Results Report						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
18. MAINTENANCE EQUIPMENT SUPPORT							
18.1.	Prepare Warranty & Maintenance Catalogues						
	Establish Engineering Requirements						
18.2.	Equipment Nameplates						
18.3.	Instructions to Maintenance Engineer						
18.4.	Equipment Identification & Installation Location						
18.5.	Interface Wiring Diagrams						
18.6.	Issue Quality Control Document & Records						
18.7.	Establish Review Program						
18.8.	Establish Change Control Procedure						
19. MANUFACTURING POLICIES AND LIAISON							
19.1.	Establish Manufacturer Contracts						
19.2.	Establish Method of Monitoring Factory						
19.3.	Determine Factory Release Requirements						
19.4.	Prepare Detailed Mfg. Release Plan						
19.5.	Clarify Shipping & Receiving Dates						
	Institute factory Follow-up Procedures Covering:						
19.6.	Release by Architect-Engineer (If Required)						
19.7.	First Piece Review & Approval						
19.8.	Factory Engineering Problems						
19.9.	Monitoring of Test Methods & Procedures						
20. RELIABILITY-PRODUCT ASSURANCE							
20.1.	Establish Project Reliability Plan						
20.2.	Establish Method for Material Control						
20.3.	Prepare Product Assurance Contract Checklist						
20.4.	Prepare Quality Requirements for Eng. Documents						
	And Monitor Project						
20.5.	Reliability Predictions						
20.6.	Reliability Failure Reporting System						
20.7.	Reliability Testing Procedure						
20.8.	Qualification Testing Procedure						
20.9.	Witnessing of Test by Quality Control						
20.10.	Subcontractor Evaluation System						
20.11.	Quality Inspection System (Internal)						
20.12.	Architect-Engineer Inspection System (External)						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
21. ENGINEERING DOCUMENTATION							
21.1.	Establish Engineering Documentation Requirements						
21.2.	Prepare Mfg. Drawing Requirements						
21.3.	Prepare Functional Block Diagrams						
21.4.	Prepare Installation Drawings						
21.5.	Determine Drawings Grade for Instruction & Maintenance Books						
21.6.	Determine Client Requirements., Microfilm / Drawing Video Tape						
21.7.	Accumulate, Tabulate Vendor Data Establish Maintenance Program For:						
21.8.	To. Down Breakdown						
21.9.	Maintenance Parts List						
21.10.	Detail Parts Breakdown						
21.11.	Summary Equipment Listing Implement System For:						
21.12.	Nomenclature Request						
21.13.	Federal Stock Numbers						
21.14.	Nameplate Approvals						
21.15.	Prepare Instruction Manuals						
21.16.	Maintain Complete Project Specification Documentation						
21.17.	Maintain Complete Project Report Documentation						
22. CONSTRUCTION AND EMPLACEMENT / INSTALLATION							
22.1.	Develop Drawings & Specifications						
22.2.	Review Customer Construction Plans and Specs						
22.3.	Special Studies to Establish Design Criteria						
22.4.	Obtain Siting & Configuration Requirements						
22.5.	Establish On-Site Customer Support						
22.6.	Develop Plan & Specs for Construction & Emplacement Diagram						
22.7.	Prepare Emplacement Instruction Documents						
22.8.	Procure Material for Emplacement						
22.9.	Procure Service for Emplacement						
23. SPARE PARTS							
23.1.	Establish Policy Agreement with Customer						
23.2.	Determine Type of Contract for Spares						
23.3.	Establish Method of Generating Requirements						
23.4.	Clarify Customer Approval Requirements						
23.5.	Decide Who Will Provide Spares						
23.6.	Determine Method of Funding						
23.7.	Establish Interim Release Procedures						
23.8.	Determine Method of Procedures						
23.9.	Determine Loadings (Requisition Engineering, Packaging, Transportation, etc.)						
23.10.	Write Procedures for Documenting & Negotiating						
23.11.	Determine Procedures for Changes to						
23.12.	Institute Requirements for Procedural						
23.13.	Institute Requirements for Item Description Program						
23.14.	Institute Policy for Lost or Damaged Merchandise						

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
24. SITE TECHNICAL OPERATIONS							
24.1.	Plan and Conduct Training Programs with Owners Staff						
24.2.	Prepare Personnel Requirements						
24.3.	Prepare Installation, Checkout & Test Plan						
24.4.	Prepare Operating & Maintenance Plan						
24.5.	Prepare Operation & Maintenance Documents						
24.6.	Manage Site Installation Activity						
24.7.	Perform System Checkout Acceptance Tests						
24.8.	Participate Technical Improvement with Architect-Engineer, Contractors, Owner						
25. POST CONSTRUCTION SITE ADMINISTRATION OPERATIONS							
25.1.	Select the Site Operations Manager & Staff						
25.2.	Institute Site Operation Procedures						
25.3.	Establish Administrative & Personnel Support						
	Establish General Services:						
25.4.	Mail, Message Center, Document Control, etc.						
25.5.	Communications, Phone, Radio, etc.						
	Establish Technical Services						
25.6.	Maintenance Shop						
25.7.	Drafting, Photographic, Weather Log						
	Establish Personal Services:						
25.8.	Housing, Food, Laundry						
25.9.	Medical, Insurance, Dental, Mortuary, Religious						
25.10.	Fire & Police Emergencies						
25.11.	Protective Safety, Security, Fire extinguishers, Aid Kits						
25.12.	Prepare Map for Visitor & Delivery Personnel						
26. TRANSPORTATION & LOGISTICS							
26.1.	Verification of Shipments and Receipts						
	Establish Passenger and Freight System						
26.2.	Commercial Courier						
26.3.	Domestic and / or Foreign Courier						
26.4.	Establish with Customer (Port of Embarkation and Delivery)						
26.5.	Institute Courier Systems, Courier Box						
26.6.	On-Site Transportation Requirements						
26.7.	Special Air Charters						
26.8.	Transportation Plan for Equipment						
26.9.	Warehousing, Staging, Material Handling						

For further clarification, refer to:

1. Archibald, Russell., Managing High — Technology Programs and Projects, A Wiley — Interscience Publication, New York, 1976.
2. Chairman Poirot, James., Quality in The Construction Project, American Society of Civil engineers, New York, 1988.
3. Harrison, F.L., Advanced Project Management, Gower Publishing Company limited, England, 1987.

Method of Procedures I – Pre-Award Phase

Task	Activity	Responsibility	Description	Tools
1	Look for job opportunities	Everyone	Keep eyes open for job opportunities online, in newspapers, advertisements, listings, through friends, and past clients.	Newspapers, advertisements, listings, etc.
2	Filter job opportunities	Everyone	Assess job opportunities available to determine which to pursue.	
3	Determine feasibility of project	Owner /Estimator	We need to see if this project is something, we are capable of performing (skills, qualifications, and equipment available).	History of past project and equipment availability
4	Decision to bid	Owner's Rep		
5	Prequalification package	Estimator Engineer	As required by owner in writing or in special provisions, submit all required documents to owner-subcontractors/vendor prequalification's.	Previous examples
6	File Intent to Bid, if required	Estimator	Mail or fax intent to bid with the state and other agencies for all government	Fax and/or e-mail out
7	Obtain plans and specifications	Engineer/ Estimator	Pick up plans and documents from owner. Route plans and documents to estimator and/or take off person. Get enough copies for estimator and subcontractors.	Bid list (from estimator)
8	Obtain other special documents referenced in plans and specifications	Estimator / Take-off Person	Review plans and specifications to see if other specifications or documents are included in bid. For example, standard details/specifications, boring logs, and Geo-tech reports.	Estimator, reference set of standard plans/documents
9	Site visit with pictures	Take-off person	Visit the project site. Take pictures. Take notes (e.g., travel time to/from base yard) of anything not shown in the plans.	Digital camera, note pad, watch, and pencil/pen
10	Assign takeoffs and deadlines with the estimator	Estimator	Schedule and distribute take--off deadlines.	Knowledge of who has what projects
11	Obtain and/or assign Job number	Secretary/Reception	Fill in project log and provide job number to estimator.	P-Drive
12	Post on bid schedule	Secretary/Reception	Prepare weekly bid schedule listing bid date, project name, project location, agency involved, and responsibility party or parties involved	E-mail, Excel
13	Request for bond and builders risk insurance (if required by specifications)	Estimator	Rough estimate of project.	
14	Proposal documents	Estimator	Insert BB, tax clearance, and proposal, special qualifications, exclusions, wage rate schedule.	
15	Meet with estimators to discuss scope and takeoff	Estimators Engineers	Outline what is required. Discuss what activities are involved.	Plans and specifications
16	Identify special circumstances, details, etc.	Estimator	Read through plans and specifications. Identify special notes and special work. Figure out how to do a certain task.	Plans and specifications, note pad, pen, and highlighter
17	Take-offs	Estimator	Calculate quantities to build up the estimate and request for material prices and subcontractor quotes. Verify proposal quantities. List activities that we need to analyze further.	Email, fax, copy machines, computers, phones, Excel, and the manual method
18	Generate sub/vendor list for plan, specification, an addendum distribution	Estimator/ Engineer	List a minimum of 3 subcontractors typically used for each division as required. Estimator to revise or add as needed.	Autodesk, Sub Distribution List
19	Plans, specifications, and addendums to subcontractors	Secretary/Reception	Distribute and/or make available project documents to subcontractors so that they may prepare proposal and quotation for bid.	Telephone, fax machine, and computer to communicate with subcontractor

Method of Procedures I - Pre-Award Phase

Task	Activity	Responsibility	Description	Tools
20	Consider specialty materials-request for substitutions	Estimator	Examine plans and specifications to determine brands of materials specified. Determine availability of specified brands. If required, determine other brands equal in quality. Submit request for substitution with backup documentation on a timely basis.	Plans, specifications, Internet, and suppliers
21	RFIs to owner	Estimator	When there is a contradictory issue in plans and specifications it can be clarified with an RFI. A clarification will lead to a fair and less risky bid. It avoids potential conflicts and misunderstandings.	Plans, specifications, and reading
22	Analyze the subcontractor's past performance	Site Mgr. / Owner's Rep	Consider past work done by subcontractors or directly with subcontractors to determine reliability, work types, and production rates. Need to determine if we want them as a subcontractor or how we can use them in the bid.	Knowledge of past projects/history and subcontractors
23	Subcontractor license confirmation, insurance, and bonds	Estimator	Make sure the subcontractors are currently licensed and in good standing. Http://www.ehawaii.gov/serv/pvl	Internet and subcontractor quotes
24	Specialty licenses and insurance	Estimator	Determine specialty licenses and insurance requirements in order for bid proposal to be eligible. Check that we or subcontractors meet necessary specifications or requirements.	Specifications and subcontractor licenses
25	Meet with the subcontractors to discuss scope	Estimator	The meeting should discuss the design of the scopes of work in order to avoid misunderstandings or incompleteness in the bid. It should also conclude the most economical method to break down the scope of work in order to cumulatively have the most competitive bid.	Phone, conversation, plans, draw lines, and list
26	Set-up bid items	Estimator	Bid proposal and take--offs.	Excel spreadsheet
27	Create a rough project schedule	Estimator, Engineer	Check if schedule can meet project deadlines, otherwise input liquidated damages. Project schedule is required by the owner to analyze for financing feasibility, etc.	Microsoft Project Schedule Software
28	Strategize project	Superintendent Estimator Engineer Subcontractors	Think about how you can bid project at the most cost-efficient construction method. Find cheapest subcontractors and work to develop costs.	N/A
29	Construction/field input	Engineer (assigned), Superintendent	Review plans and specifications with field personnel. Get advice and discuss strategy on specific activities and goals.	Copy of plans and specifications, list of items, activities, and quantities involved, rough plan of attack strategy, and list of goals and problems
30	Research historical production data	Estimator	Check estimating database. Look in old job files (i.e. timesheets).	Job files and computer
31	Create Estimate	Estimator	Input labor, subcontractors, etc. Verify takeoff quantities.	Email, fax machines, copy machine, computers, phones, and copies of quotations

Method of Procedures I – Pre-Award Phase

Task	Activity	Responsibility	Description	Tools
32	Produce Estimate	Estimator, Engineer, Take-off person	Enter bid items and takeoffs into system, assign crews, times, mark-ups, productivity, etc.	Take-offs, crews and productivity history, and Computer estimating system
33	Review estimate	Estimator	Evaluate the estimate if all items, details, and documents are complete. Review production rates and contingencies. Review bid strategy. List of Qualifications, Exclusions, and Allowances. Any V.E. suggestions.	Copy of job estimate, list of all subcontractors and suppliers, copy of all quotes, copy of all plans and specifications, rough schedule (if needed), and a list of persons to attend review
34	Analyze subcontractors' bids, etc. (exclusion)	Estimator, Engineer	Are they licensed to do the work? Look at their conditions	Their quote
35	Assemble bid documents	Take-off person and Estimator	Package all required documents for bid package prior to submitting (i.e. addendum, bonds, etc.). Verify that all documents are properly filled out and signed.	Bid proposal and any applicable documents
36	Clarify Bid calculations	Estimator	Review bid documentation, clear up how to fill in ambiguous areas	Bid documents, telephone
37	Bid document review	Estimator, Take-off person, Conrad	Analyze bid proposal to ensure all pertinent documents are included (i.e. addendum, etc.). Review prices to make sure there are no errors or misprints. Ensure all forms are filled out and all subcontractor applications are listed.	Bid proposal
38	Determine who will submit the bid	Estimator	Assign individual beforehand to take the bid to the owner/agency. Determine the shortest route. Note end time due.	Vehicle (with full tank), proposal/bid
39	Submit bid	Estimator/Engineer	Physically transport bid proposal package in a timely manner to site of bid opening so that proposal is eligible for award. Must ensure that mode of transportation is reliable and go safely!	Automobile for transporting proposal
40	Log in bid results and tabulate	Estimator	Tabulate jobs by the private, public, agency, road, carpentry, etc. Tabulate the percent of spread and rank.	Estimate log sheet and Excel spreadsheet
41	Collate and file bids	Estimator	Purge all generations of visions of printout except the last one. Punch holes and file all bid paperwork including takeoffs.	Filing cabinet
42	Follow up on unsuccessful estimates (private)	Secretary/Reception	On private jobs contact owner to determine if the job was built, if they need additional work.	Phone and estimate list
43	Box, store, and purge estimates	Estimator	After one year, move estimates to storage. After three years, chief estimator to review list and plan to keep critical estimates and then purge all others. All vision printouts and confidential documents get shredded, and all other documents trashed.	Shredder and boxes

Method of Procedures II - Pre-Construction Phase

Task	Activity	Responsibility	Description	Tools
1	Analyze estimate	Engineer, Estimator	After bid, check to see that accounting items/costs are accounted for. List unaccounted items and determine where we can make up shortfalls or if we drop project. Determine specialty items that need to be brought in hand-off meeting.	Estimate
2	Request an ATP from owner	Engineer	BHCI can assist owner by providing ATP format. Owner to transfer onto their letterhead.	ATP Format
3	Execute construction agreement with owner prior to start-up of any work	Engineer	Signing contracts/documents and submit notarized documents.	AIA Documents
4	Drafting of AIA Contract with all necessary information and attachments.	Engineer	Minimum attachments are as follows; Copy of: Estimate or Budget, Qualifications, Exclusions, Allowance if applicable, Options if applicable, Preliminary Project Schedule, company Labor Rates. Do not start on contract until ATP is received from client.	
5	Scan and Email Draft	Engineer	Scan and Email draft to company VP and President for review and approval.	Xerox, Computer
6	Make corrections	Engineer	Make corrections as noted by company VP and President.	
7	Contract Transmittal	Engineer	Generate Transmittal and Submit two (2) each copy to client for execution and return to BHCI.	Autodesk
8	Executed Contract	Engineer	Upon return of executed contract, submit contract to company President for final execution.	
9	Final Contract Execution	Engineer	Upon final execution retain one (1) each copy for office files and return one (1) each copy to client.	
10	Move estimate to job cost	Engineer	Confirm final estimate and initialize estimate into the job-cost system.	Computer
11	Open job in Autodesk	PM	Initial set-up inputting project into Construction Software	Job number
12	Request bonds and insurance	PM		
13	Assign engineers	PM		
14	Set-up paperless job files	Engineer	Organize project documents into folder system for hard copies and for easy reference.	Folders and documents
15	Value engineer/Buy outs	Engineer	Explore value engineering opportunities	
16	Hand-off meeting (estimator to engineer)	Estimator, Engineer, Superintendent	Estimator and engineer review the project and clarifies any important notes.	Plans and specifications, note pad, pen, and highlighter
17	Upload project to Autodesk	Engineer	Specifications, subcontractor quote, and contract.	Computer
18	Review estimate and takeoff	Engineer	Verify takeoff with estimate and possibly do a separate takeoff for the project.	Plans, specifications, estimate, takeoff, scales, pen, and paper
19	Clarify subcontractor scope of work	Estimator/Engineer		
20	Create schedule	Engineer	Create a project schedule for a particular project.	Microsoft Project, plans, specifications, and estimate
21	Determine critical path-set-up sequencing	Engineer, Foreman, Superintendent	Identify critical activities based on project schedule, sequence activities, draft a critical path schedule, and communicate crucial path items to everyone involved.	Schedule and critical path schedule

Method of Procedures II - Preconstruction Phase

Task	Activity	Responsibility	Description	Tools
22	Create production tracking sheets	Engineer	Create a spreadsheet for each task showing rate: quantity/man hours.	Estimate, excel, plans, and specifications
23	Financial plans and cash flow	Engineer	Analyze estimates for cost. Schedule expenses for equipment, crew, subcontractors, materials, etc.	Estimate, quotes, and schedule
24	Safety Plan	Engineer, Safety Director, Superintendent	Plan to ensure safety of workers on jobsite.	Pager, typing, and safety director
25	Quality control plan	Engineer, Superintendent	Plan to ensure that the owner will get a quality product in the end. Testing procedures for materials.	Pager, pencil, and quality control manager
26	Best Management Practices/plan (BMP)	Engineer	Plan of how to take care of run-offs from project, wash-down procedure for concrete trucks, and how to manage spills on project.	Pager and typing
27	Traffic control plan (if required)	Engineer	Submit plan for approval on lane closures, signage, flagmen, and police officers to safely direct traffic through construction site. May include licensed engineer as necessary.	Plans, specifications, and manual
28	Stockpile and disposal sites (if required)	Engineer, Superintendent	Determine stockpile and disposal sites in order to obtain grading permit and create BMP plan.	Available dumpsters and staging areas
29	Permits	Engineer	The procurement and application for government or owner required permits ranging from grading, building, noise, DOH, street usage, demolition, dumping, etc. Determine which permits are required for each project. Refer to permit list.	Routing, writing, and typing
30	Write, input, review subcontractors, for fast track provide NTP's.	Engineer	Draft the company's subcontractor with a clear description of the subcontractor work scope. Also note agreed upon exclusions, special conditions, payment requirements additional insured for COI's	Computer, phone, conversation, and meetings
31	Distribute plans and specifications	Engineer	Distribute copies of all plans, specifications, and addendum to all subcontractors and field personnel. Confirm they are the current/most recent version/revisions.	Sufficient copies of plans and specifications
32	Subcontract ledger	Subcontractor, Engineer, Accounts payable	Review subcontractor contract amounts, verify. Identify billing via Vision System (i.e. how the subcontractors should set up their subcontractor billing). Advise subcontractor of proper invoicing (i.e., unit pricing, etc.)	Subcontractor contracts and Autodesk
33	Submittal log	Engineer	All list of submittals that are required to be submitted. Information on a list should have descriptions,	Computer, Internet software, and reading
34	Commencement submittals	Engineer	Identify (per specifications) all required start-up documents: working hours, authorized signature,	Specifications
35	Project submittals	Engineer	Verify submittal with plans and specifications. Submit submittals.	Excel, plans, and specifications
36	Verify materials, quantities, and prices	Engineer	Verify materials, quantities, and prices.	Plans and specifications, material takeoffs, and quotes
37	Material planning and Procurement log	Engineer, Superintendent	Schedule material for availability and confirm quantities and prices. Be aware of ordering products with a	Plans and supplier information
38	Equipment procurement	Engineer, Superintendent	Rent or ship equipment required for the project (i.e., grade ails, specialty equipment, scaffolding).	Quote Lump Sum Prices
39	Small/specialty tools	Engineer, Superintendent, Foreman	Meet with the superintendent or foreman and decide which specialty tools are needed for the project. Check if tools are located on other projects (i.e., chipping guns, concrete mixer, etc.).	Construction method, project schedule, and project tasks
40	Identify long lead items	Engineer	Look at quotes for delivery time. Know your specialty items.	
41	Purchase order contracts	Engineer	Give purchase order to material house.	Quotes

Method of Procedures II - Preconstruction Phase

Task	Activity	Responsibility	Description	Tools
42	Order approved materials	Engineer	Order all materials that have been submitted and approved.	Material takeoff list, submittal log, verification, and approval for all subcontractors
43	Buy-out plan	Engineer	Plan to order materials in the correct quantities and with proper lead time to ensure delivery of materials before they are needed. Buy-out plan may schedule delivery on an "as needed" basis. Take opportunity to shop (if possible). Need to price conscious and ethical. Verify all materials with estimate and takeoff and find opportunity to save overall by evaluating materials and work sequence.	Job estimate/takeoff, submittal log, job schedule, and shipping schedule
44	Opportunity savings	Engineer and Superintendent	Find cheapest sources and economical method of construction.	
45	Assign supervisors and foreman	Superintendent		
46	Equipment and manpower schedule	Engineer, Superintendent	Define type and quantity of crafts and equipment needed for project. List should have dates and timelines for when the resources are needed.	Job estimate and takeoffs, access to project schedule (CPM)
47	Provide project supervisor with bid documents, production rates, schedules, etc.	Engineer	Provide plans and specifications, traffic control plans, production rates, equipment, crew, and materials list, and schedule.	Plans, specifications, binders, and schedule
48	Assign field crew	Superintendent	Determine which personnel will be assigned to the project-based upon the scope of work and availability.	Manpower schedules
49	Project planning meeting	Engineer, Superintendent, Estimator	Discuss schedule. Discuss production rates. Discuss any problems. Assign personnel for manpower. Review plans and specifications.	e-mail, copy machine, and memos
50	Start MSDS binder and distribute to supervisors and foremen	MSDS coordinator Engineer, Safety Director	Review plans and specifications to determine required materials. Review quotes to determine suppliers, brands, and subcontractors. Contact suppliers or manufacturers for MSDS and	Phone, fax, Internet, plans, and specifications
51	Preconstruction meeting with owner	Engineer, Superintendent, Owner, Subcontractor as necessary	Prepare as needed for each agency's requirements.	
52	Preconstruction meeting with field	Engineer, Superintendent, Foreman	Issue schedule, production rates, and cost codes (foremen, superintendent, and field).	Phone, e-mail, fax, and meeting room
53	Preconstruction meeting with subcontractors	Engineer, Superintendent	Clarify subcontractor responsibilities and issue schedule.	Phone, e-mail, fax, meeting room, and letters
54	Preconstruction safety meeting	Engineer, Superintendent	Verify if owner requires preconstruction safety meeting and hold it with owner, workers, and subcontractors.	Phone, email, fax, meeting room, and letters
55	Security requirements	Engineer	Determine if additional security is needed to prevent vandalism, unlawful entry, theft of equipment, materials, and project site.	Security guard/special duty police, cameras, and alarm system
56	Safety certifications	Engineer, Safety director	Certain task/jobs require safety training and certifications (i.e. crane, Haz-Mat, confined space, respirators, forklift, etc.).	Obtain training facility and location, schedule trainer and instruction, schedule class, and set up travel and subsistence
57	Access permissions	Engineer	Determine if special requirements are needed to access work site (i.e. airport badges, parking permits/stickers, gate keys, security guard, drug testing, and list of employees/subcontractors). Verify if required and obtain temporary access agreements from landowners.	

Method of Procedures II - Preconstruction Phase

Task	Activity	Responsibility	Description	Tools
58	Contact utilities (if required)	Engineer	Notify all underground or overhead utility owners in the project site. Check as-built drawings to avoid damaging existing utilities.	Phone, fax, routing, drawing, and site investigation meeting
59	Public relations	Engineer	Distribute notice to adjacent property owners and businesses. Hold public meetings. Discuss any concerns with owners and business.	Person to distribute notices and schedules
60	Public notification (if required)	Engineer	Notify police, fire department, Civil defense, schools, and hospitals. Notify utility companies.	Fax, newspaper, TV and radio stations
61	Transportation for crew	Engineer	Provide method of transportation for off-island crews as well as on-island crews. Make sure there are enough vehicles. Set up plane reservations in advance.	Vehicles and crew size
62	Housing	Engineer/Reception	Arrange for housing accommodations for personnel.	Hotels, apartments, and houses
63	Document current site conditions	Engineer	Photograph and document existing site conditions, damage. Note existing damages.	
EA	Verify subcontractor requirements	Engineer	Verify that subcontractor documents are executed, insurance and proper licenses are in place, proper safety certifications and training are in place prior to subcontractor coming on job site.	Engineer and Autodesk
65	Set-up field office and construction yard	Engineer	Secure construction yard and set up field office as operation base for construction project.	Field office trailer, land, truck, and existing space.

Method of Procedures III - Construction Phase

Task	Activity	Responsibility	Description	Tools
1	Job site signage	Engineer, Subcontractor	Place signage on job site.	Signs, tools
2	Field layout	Engineer, Superintendent, Foreman, Crew	Surveying and layout-initial layout as needed for daily work. Professional surveyor as needed	Stakes, tags, paint, and measuring equipment
3	Underground utilities (if required)	Engineer, Foreman, Superintendent	Field identification of existing underground utilities prior to construction. Record and flag as required during construction. Also maintaining as-built plans.	Toner, survey, flags, paint, and pen
4	Mobilize equipment/tools	Superintendent	Check availability	
5	Mobilize crews	Engineer, Superintendent, Foreman	Haul labor to job site. Air transportation if required. Housing if required.	Airfare, trucks, vans, and rooms
6	Erosion or dust control maintenance and jobsite fence	Engineer	The checking and maintaining of BMP measures and effectiveness on a daily basis. Also, after a substantial act of nature such as a flood or windstorm.	Heavy equipment and pick-up
7	Traffic control (if required)	Engineer, Foreman	Know your closures. Give early notices to the public. Schedule special duty officers or freeman guard.	Newspaper and radio
8	Performance analysis with field job-cost aria productivity	Engineer, Superintendent	Worth with superintendent so he may inform foreman.	Reports
9	Calling rainouts	Engineer, Superintendent	Confirm weekly reports. Match rainouts. Confirm request rainout days with owner.	Owner, letter if required, conversation and daily logbook
10	Daily reports	Foreman	Reports from foreman logs describing daily activity on the job.	Copy of foreman log
11	Daily huddles	Engineer, Superintendent, Foreman	Discuss plans, schedules, and problems with supervisors and foremen.	Meeting room and field office
12	Identify conflicts and constraints	Engineer, Superintendent	Identify possible unforeseen site conditions, plan discrepancies, utility conflicts, and plan.	Plans, specifications, and field v
13	Progress photos	Engineer, Foreman, Superintendent	Take pictures of the job progress, important milestones, conflicts, and special events.	Digital camera or camcorder
14	Maintain Autodesk	Engineer	Submittals transmittals and communication.	Computer with scanner and internet access
15	Address public complaints	Engineer	Listen to complaints. Let them know that you will look into complaints	Phone
16	Maintain public relations	Engineer	Complaint driven. Maintain public relations; updating public with upcoming construction tasks.	Notices, construction schedule
17	Purchase materials	Engineer	Create purchase order. Verify quantity of project requirements and prices. Set-up schedule to deliver. Notify warehouse/superintendents of material purchase.	Bid proposals, estimates, and takeoffs
18	Verify invoice amounts	Engineer, Accounts Payable	Check and approve if invoice billings are correct, check amounts with purchase orders and verify if they are to be included in progress payments. Notify vendors if amounts are incorrect.	Fax machine, office, and telephone.
19	Invoice coding	Engineer	Code invoice to appropriate item. (Weekly)	Pen and estimate printout
20	Material delivery confirmation	Foreman, Warehouse Manage, Engineer	Check that correct material delivered. Check for damage/defects. Check proper quantity. Check if delivered to right location. Notify project engineer of receipt.	Copy of order/purchase order
21	Verify estimated time of arrival for subcontractors and supplies	Engineer	Make contact with the subcontractor and the supply house. Give schedules.	Telephone, fax, and e-mail.

Method of Procedures III - Construction Phase

Task	Activity	Responsibility	Description	Tools
22	Safety meeting	Foreman, Safety Director	Go over the job-specific safety issues and weekly safety meeting handouts (beginning of week).	Safety meeting handout
23	Weekly job meeting	Engineer, Superintendent	Discuss plans, schedules, and problems.	Meeting room and field office
24	Coordinate inspections and quality control	Engineer	Notify owners and inspectors, in a timely manner, when critical work that requires inspectors will be done.	Schedule and quality control plan
25	Owner meetings	Engineer	Meet with owner representatives to review project progress and schedule. Discuss all issues of the project.	Project schedule, pay request, project quantities, and change order log.
26	Cash flow maintenance	Engineer	Establish project cash flow for the month. Identify and project monthly cash flow (i.e., via job costing and anticipated monthly pay estimates). Invoice cost forecasting and production rates to identify cash flow.	Projected cost and income
27	Safety inspection (as required)	Engineer, Superintendent, Safety Director	Walk project to see if there are any safety oversights/needs. Notify superintendent of deficiencies/critical items.	
28	Visit and inspect job site	Engineer	Project engineer to visit and inspect job site at least once per week to maintain project management. If no Foreman, Engineer to be stationed on site or visit 2-3 times/day.	
29	Quality control testing	Quality control person, Engineer	Compaction test, survey test, and cylinder test, profilograph independent testing lab occasionally. Notify owner if necessary for scheduling and verification.	Testing equipment and tools
30	Change order proposal	Estimator Engineer	Go over change order with superintendent and submit a change order. Notify accounting if approved.	Labor and equipment
31	Subcontractor coordination	Engineer	Coordination of work activities, resource usage with all the subcontractors, suppliers, and superintendents. Identify conflicts and resolve.	Current project CPM schedule, subcontractor schedules, and weekly meeting
32	Scheduling concrete pours and trucking	Engineer, Foreman, Superintendent	Check with supplier for open dates and check trucking with schedules. Notify QC if required.	Phone and fax
33	Track production rates	Engineer	Track performance of project versus budget-allows to make necessary adjustments to make and/or control construction on a weekly basis.	Timesheets and Visions
34	Code timesheet	Engineer, Superintendent, Foreman	Assigning a code to a specific task for tracking analysis purpose and to pay employees.	
35	Update job-cost system weekly	AP, AR, PR	Input costs (labor, material, equipment, and subcontractors) info vision for up-to date cost reports and when project engineers turn in coded timesheets and invoices.	Timesheet and invoices
36	Develop alternative work schedule	Engineer, Superintendent	Alternative work schedule if job site conditions change. Notify superintendents, foremen, and subcontractors. (Daily)	Computer with scheduling software and a calendar with post-it notes
37	Establish subcontractor schedule	Engineer	Create/update. Schedule changes/conflicts. (Weekly)	
38	Owner meeting minutes	Engineer, Owner	List concerns and issues to bring up at the owner/agency meeting. Discuss process schedule and any possible delays.	Schedule and questions

Method of Procedures III - Construction Phase

Task	Activity	Responsibility	Description	Tools
39	Update (payroll) tax and insurance rates	Accounting	Ensure tax rates are up to date. Ensure insurance rates are up to date.	Current tax and insurance rates
40	Update safety certification/MSDS	Engineer	Update certificates/MSDS with upcoming project tasks	Construction schedule
41	Partial acceptance (if required)	Engineer, Owner	Acceptance of partially completed items. Notify owner in writing.	Completed section
42	Bi-monthly cost projection	Engineer, Owner	Update cost and determine how much work is needed.	Estimate, invoices, and computer
43	Update Vice President bi-weekly	Engineer, Superintendent, Foreman	Notify Conrad on progress, upcoming tasks, and problems with project.	Project schedule
44	RFI	Engineer	It is a request for clarification on an unforeseen problem or conflict hit during construction. The owner and consultant need to agree upon a solution to the conflict with the contractor's input.	Computer, phone, fax, writing, copy machine
45	Monthly applications for payment	Engineer/PM	The preparing and submitting of payment requests. The percent complete or unit quantities must be agreed upon prior to preparation. Upon submitting, a copy needs to be input.	Computer, copy machine, and measuring tools
46	Follow-up on owner's payment	Engineer/Accounting	After duration has elapsed for owner to pay contractor, follow-up with owner about status of payment.	Payment request
47	Tracking work orders	Engineer	When additional work is encountered or there is a dispute in responsibility of work, a work order on a time and material basis must be recorded and approved.	Computer, writing, pen, and copy machine
48	Subcontractor billings	Engineer	Progress billings from subcontractors. Add change orders to subcontract ledger.	Subcontractor billings and paper
49	Follow-up on subcontractor payments	Engineer/Accounting	Track payments to subcontractors. Monitor progress on "hold" issues. Confirm payment is released in a timely manner. Verify that subcontractor payments are in agreement with owner pay requests. Verify that subcontractor has complied with all insurance, certified payroll, and subcontract requirements prior to releasing payment.	Accessing to subcontractor ledger, current list of subcontractor billings and payment "holds", a summary of all subcontractor billings, and owner monthly progress payment schedule of values.
50	Subcontractor lien releases	Engineer	Ensure subcontractors submit lien releases with subcontractors' pay requests. Verify lien releases are accurate.	Lien releases
51	Update activity hazard analysis	Engineer, Safety Director, Superintendent	Identify new hazards and safety concerns. Create a new or modify an existing AHA, include all control measures required to eliminate hazard. Involve all site personnel during weekly safety meeting.	Safety plan, weekly safety meeting, daily huddle, and accident/injury reports
52	Update certifications	Superintendent	Maintain operator certifications in order to operate equipment.	Equipment classes
53	Establish a weekly schedule	Engineer, Superintendent	Create/update a three-week schedule for subcontractors/owner and internal use. Adjust for changes/conflicts.	

OAC DUTIES

ESTABLISHING OPEN COMMUNICATIONS

PURPOSE - DEFINE CONSULTANTS RESPONSIBILITIES

When planning a complex construction project, it is important to establish and maintain open communication between the Owner, Architect and Contractor. During the early planning stages, many job-related duties must be assigned and managed. In our day-to-day business transactions, we have come to realize that no two professional organizations have the same training, experience, capability or culture. In order to best organize this collaboration effort, we should establish a greater working knowledge of our professional obligations and responsibilities. The key to fulfilling our individual project roles is to know and understand what our tasks and duties shall be.

The purpose of this report is to clarify the roles, responsibilities and limits of authority. The following outline reflects a guideline to discuss the scope and limitations for us to successfully proceed with the development.

INDEX

DEFINING CONSULTANTS RESPONSIBILITIES

1. Set expectations/objectives
2. Establish communication and coordination
3. Study alternative and project impact studies
4. The project team
5. Select design professionals
6. Agreement for design services
7. Planning and managing the design
8. Design practices
9. Design discipline requirements
10. Planning for construction
11. The construction team
12. Competitive bidding procedures
13. The construction contract
14. Planning and managing construction activities
15. Contract administration for construction management
16. Shop Drawings
17. Mechanical systems start-up program
18. Operation and Maintenance (O & M)
19. Establish property management program

LEGEND

O = Owner
A = Architect
C = Contractor

P = Prime Responsibility
A = Assisting/Advising
R = Reviewing

CATEGORY

PROFESSIONAL GUIDELINE

O A C

1. SET EXPECTATIONS/OBJECTIVES

P A A

- Establish project requirements & objectives
- Study functional adequacy, completion time, budget, life-cycle costs, operation and maintenance issues

P
P R R

- Assemble Owner's advisory team
- Communicate requirements & objectives to project team members

2. ESTABLISH COMMUNICATION & COORDINATION

P A A
P P P

- Plan coordination process
- Initiate lines of communication w/ contact persons

A P P

- Determine if needed communication is occurring

P A A
P P P

- Establish meeting schedule
- Initiate communications to resolve conflicts

3. STUDY ALTERNATIVE & PROJECT IMPACT STUDIES

P R A
P A A
R P A

- Enter contract with design professionals
- Provide specialized advisors
- Establish design concepts

R	P	A	- Define plan as to cost, schedule, function and environmental impact
P	A	A	- Set guidelines for study of alternatives
R	P	A	- Prepare alternatives study
P	A	A	- Select preferred alternative
A	P	A	- Study environmental impact
P	A	R	- Coordinate public involvement
P	P	P	- Set requirements so contractor can prepare priced proposals

4. THE PROJECT TEAM

P	A	A	- Establish standards of performance
P			- Appoint advisors for Owner
P	P	P	- Select Project Manager
P	R	R	- Delegate authority by contract
R	P	R	- Conceive, plan, & develop design development process
R	P	P	- Provide technically qualified team members
P	P	P	- Avoid conflicts of interest
P	P	P	- Comply with special requirements designing to local building codes

5. SELECT THE DESIGN PROFESSIONALS

			- Interview architects, engineers, consultants best suited for project
P			- Establish selection policy, & procedure
P			- Invite statements of qualifications
R	P		- Submit qualifications
P			- Invite proposals
P		A	- Make selections based on qualifications
R	P	A	- Prepare preliminary scope of work
R	P		- Estimate cost of scope
P	P	A	- Agree on final scope and cost
P	P		- Proceed to negotiate contract

6. AGREEMENT FOR DESIGN SERVICES

P	R		- Demonstrate financial capability
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- | | | | |
|---|---|---|--|
| R | P | | - Establish the complete scope of project |
| A | R | P | - Provide cost estimate |
| R | P | | - Correlate scope and cost |
| P | R | | - Utilize standard AIA form contract |
| P | R | | - Provide proper compensation |
| P | P | | - Communicate understanding through the contract |

7. PLANNING & MANAGING THE DESIGN

- | | | | |
|---|---|---|----------------------------------|
| P | | | - Provide adequate funding |
| P | | | - Select qualified professionals |
| R | P | A | - Develop work plan |
| R | P | | - Provide qualified design team |
| R | P | A | - Establish design criteria |
| R | P | A | - Initiate communication program |
| P | | | - Provide timely approvals |
| P | R | | - Maintain quality control |
| R | P | R | - Submit progress reports |
| P | A | R | - Monitor design activity |

8. DESIGN PRACTICES

- | | | | |
|---|---|---|--|
| | P | | - Standardize office procedures |
| | P | | - Create reference library |
| | P | | - Create efficient organization |
| R | P | | - Administer quality control program |
| | P | | - Develop filing system |
| | P | | - Encourage employee development |
| R | P | | - Fulfill contract obligations |
| R | P | R | - Provide clear, concise and uniform plans
And specifications |
| | | | - Design development & working
drawings phase |

9. DESIGN DISCIPLINE REQUIREMENTS

- | | | | |
|---|---|---|--|
| P | A | A | - Authorize formation of goals for design team |
| R | P | | - Assign goals for staff members |
| P | P | A | - Contract with consultants |

- | | | | |
|---|---|---|--|
| A | P | A | - Initiate and maintain communication and coordination for design effort |
| R | P | | - Monitor and resolve team conflicts |

10. PLANNING FOR CONSTRUCTION

- | | | | |
|---|---|---|---|
| P | A | P | - Pre-qualify firms for bidding |
| P | A | P | - Establish acceptance criteria |
| P | A | P | - Evaluate construction qualification |
| P | R | A | - Select qualified constructors |
| P | A | R | - Use standard contracts |
| P | R | A | - Provide comment on design |
| R | R | P | - Evaluate suppliers |
| | | P | - Order materials and equipment |
| R | R | P | - Prepare schedule |
| R | R | P | - Plan for quality control |
| P | A | R | - Provide site representation for Owner |

11. THE CONSTRUCTION TEAM

- | | | | |
|---|---|---|---|
| P | R | R | - Provide adequate financing |
| P | | | - Provide site and access |
| A | | P | - Provide site facilities |
| P | R | P | - Assemble construction team |
| P | R | P | - Designate authorized representative |
| P | P | P | - Establish communication program |
| P | A | P | - Insist on quality control |
| P | A | P | - Obtain Permits |
| R | R | P | - Build according to plans and specifications |
| P | P | P | - Comply with regulation |
| A | A | P | - Protect health and safety of site personnel and |
| | R | P | - Submit shop drawings |
| P | P | P | - Provide timely reviews |
| R | R | P | - Construct facility according to plans and specification |
| P | P | P | - Provide construction inspection/observation |

12. COMPETITIVE BIDDING PROCEDURES

- | | | | |
|---|---|---|--|
| P | A | P | - Establish bidding procedures |
| P | A | P | - Pre-qualify firms for bidding |
| P | A | P | - Establish acceptance criteria |
| P | A | P | - Evaluate construction qualifications |
| P | A | P | - Determine qualified bidders |
| P | A | P | - Go through bid process |
| P | A | P | - Evaluate bids |

13. THE CONSTRUCTION CONTRACT

- | | | | |
|---|---|---|--|
| P | A | P | - Use standard AGC trade document |
| P | A | P | - Provide legal review of contract documents |
| P | A | P | - Establish constructor's responsibilities |
| | A | P | - Provide procedures to process shop |
| P | A | P | - Establish insurance/bond requirements |

14. PLANNING AND MANAGING CONSTRUCTION ACTIVITIES

- | | | | |
|---|---|---|---|
| P | A | P | - Assign responsibilities |
| P | P | P | - Initiate quality management |
| R | R | P | - Build according to plans and specifications |
| R | R | P | - Develop construction plan |
| R | R | P | - Initiate reporting system |
| | | P | - Supervise construction activities |
| | | P | - Maintain quality control |
| R | P | R | - Design revisions / Architect to finalize working drawings after value engineering phase |
| R | R | P | - Submit payment request |
| A | A | P | - Protect public safety |

15. CONTRACT ADMINISTRATION FOR CONSTRUCTION MANAGEMENT

- | | | | |
|---|---|---|--|
| A | R | P | - Maintain change order file |
| P | P | P | - Monitor quality control |
| P | P | P | - Comply with regulations |
| P | P | P | - Maintain necessary reports, minutes and correspondence |

P R P - Approve payments

16. SHOP DRAWINGS

P A A - Provide adequate time and funding for shop drawing preparation and review
A A - Arrange for structural design
P A - Provide structural design
P A - Provide structural calculations for shop drawing
P A - Specify shop drawing requirements and procedures
A A P - Approve proper scheduling
A P - Provide shop drawings and submit the drawings
R P R - Make timely reviews and approvals
R P - Provide erection procedures, construction bracing, shoring, means, methods and techniques of construction and construction safety

17.MECHANICAL SYSTEMS START-UP PROGRAM

P R R - Provide for startup program for mechanical machinery for physical plant
R R P - Prepare start-up plan
P A A - Assign experienced personnel
P P P - Participate on start-up operations
P A P - Observe testing
R R P - Correct deficiencies
P P P - Provide documentation
A A P - Compile operation and maintenance manuals, warranties, etc.
P P P - Complete construction project close-out

18.OPERATION AND MAINTENANCE (O & M)

P A A - Adequately fund O & M program

- | | | | |
|---|---|---|---|
| P | A | A | - Provide for O & M considerations during the design stage |
| P | A | A | - If necessary, select O & M advisor during the design stage |
| | P | A | - Design facility for efficient operation and maintenance |
| R | R | | - Prepare O & M manual |
| P | | | - Advise owner on operating limitations of design |
| R | P | | - Operate facility within design limits |
| P | | | - Follow recommended procedures |
| P | A | A | - Properly train personnel in O & M procedures |
| P | A | A | - Inspect the facility during construction and the start-up phase |
| P | A | A | |

19. ESTABLISH PROPERTY MANAGEMENT PROGRAM

- | | | | |
|---|--|--|---|
| P | | | - Design and implement controls to monitor the Property Management Program |
| P | | | - Establish primary inspection team who will monitor the quality of maintenance and repairs to facility |

CONCLUSION

The duties, roles and limits of responsibility for the preceding professional guideline are defined in broad terms. It is important to note that these three (3) primary roles are the key to the success of the overall project. As we continue in the planning stages, additional consultants will be required. At such time, they will fall under the immediate direction of these three (3) primary categories.

Our main concern is to define the limits of authority, so each will function more efficiently. The collaboration efforts of each team member will be to follow through with the quality standards established by the team leader. Our mutual goal is to adhere to these standards to allow for better communication between all participants.

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LEGEND

O = Owner
A = Architect
C = Contractor

P = Prime Responsibility
A = Assisting/Advising
R = Reviewing

OWNER'S RESPONSIBILITIES:

- Provide information regarding requirements to objectives for the project
- Owner shall designate a representative to approve project budgets, issue change orders, and furnish information expeditiously
- Retain architect/engineer for design and prepare construction documents
- Furnish all necessary surveys, soil reports, sub-surface investigations, legal limitations, utility locations and legal description
- Pay for necessary approvals, easements, assessments and charges required for the construction of the project
- Furnish legal services
- Provide for insurance and bonds required for the project
- Supply professional services, information, surveys and reports required for the development
- Furnish sufficient funds to be allocated and committed for the entire cost of the project

ARCHITECT'S RESPONSIBILITIES:

- Basic services including normal structural, mechanical and electrical engineering services
- Review the owner's program to mutually decide on the quality, scope, price and time frame of the project
- Provide a preliminary evaluation of the owner's program, schedule and budget requirements and decide if owner's program is realistic
- The architect shall review with the owner alternative approaches to design and construction of the project
- Based on the mutually agreed upon program, schedule and construction budget requirements, architect will prepare schematic design drawings to scale showing the relationship of project components
- Submit to owner a preliminary estimate of construction cost based on current area, volume or other unit costs
- Make presentation and finalize any adjustments authorized by owner to complete schematic design documents
- Begin design development documents to define the architectural character, structural, mechanical and electrical systems, materials, etc.
- Architect to advise owner of any adjustments to the preliminary estimate of construction cost
- After approval of design development and after making adjustments authorized by the owner, the construction drawings and specifications to be prepared
- Architect shall assist owner in connection with owner's responsibility for filing documents required for governmental approval
- Assist owner in obtaining bids and review thereof
- During construction, the architect shall advise and consult until job completion
- Make site visits at intervals appropriate to the stage of construction as agreed upon by owner
- Monitor construction schedule
- Direct communications shall be established with construction manager and owner as needed

**Architect's
Responsibilities:
Page Two**

- Attend meetings and maintain records including correspondence, contract documents, change orders, construction change authorizations, architect's supplemental instructions, reports of site conferences, shop drawings, color schedules, request for payment, names and addresses of contractors, sub-contractors, and principal material suppliers
- Keep a logbook recording project representative's time of activities
- Review shop drawings, product data and samples in accordance with contract documents
- Process change order directives
- Interpret and decide matters concerning performance of the owner and contractor upon written request by the owner or contractor
- Optional services upon request by owner

CONSTRUCTION MANAGEMENT RESPONSIBILITIES

PROJECT START-UP:

- Organize Ground Blessing Ceremony.
- Coordinate work activities prior to Breaking Ground.
- Establish Project Controls for Tracking Money Flows.
- Establish Weekly Owner Architect, Contractor Meetings (OAC).
- Monitor project in accordance w/Owner's objectives for Cost, Time & Quality.
- Build project in accordance with Construction Documents & Specifications.
- Coordinate, provide onsite organization and lines of authority between OAC.
- Establish Procedures to coordinate between OAC, Consultants & Vendors.
- Schedule and Initiate Procedures for Weekly Progress Meetings.
- Discuss matters regarding Problems with regard to Scheduling, etc.
- Monitor Schedules and Quality Controls as construction progresses.
- Review Procurement dates of Vendors & Suppliers that may affect Schedule.
- Make adjustments in Schedule to meet Targeted dates.
- Provide Summary Reports to include Monitoring Day-to-Day activities.
- Document all Changes. Write Narratives regarding delays affecting timelines.
- Double Check and Verify Contractors orders of Long Lead Items.
- Revise Schedule as necessary. Make recommendations where necessary.
- Oversee Supervision of Labor, Materials and Equipment to maintain schedule.
- Supervise Sub-Contract orders. Maintain log of items not provided by Owner.
- Develop and Monitor Projects Cost Control Systems.
- Review and track Actual Construction Costs to Budgeted Costs.
- Advise Owner of Cost Overages when they occur on a weekly basis.

PROJECT ADMINISTRATION:

- Develop Cash Flow Reports and Forecasts as needed.
- Identify variances between Actual Building Costs and Estimated Costs.
- Advise Owner whenever Actual Costs exceeds Budgets on a Weekly basis.
- Maintain Cost Accounting Records on authorized work performed under Contracts.
- Track actual costs on labor, materials and equipment. Compare to original budgets.
- Change Requests - Make recommendation and assist in negotiating Change Orders.
- Develop system for preparation, review and processing of Change Orders.
- Recommend, as needed, desirable changes to the OAC Scope of Work.
- Define procedures for Review, Processing & Payment of Certificate of Payments.
- Coordinate Permit Processing of Permits and Fees to obtain all required Permits.
- Coordinate obtaining Approvals from all City Authorities.
- Assist Owner, select Vendors for Owner Furnish, Fixture & Equipment (FFE).
- Inspect work produced by Trade Contractors for Defects and Deficiencies.
- Review OSHA Safety Programs and Procedures of all Trade Contractors.
- Ensure all Contractors have OSHA Safety Programs in place to reinforce safety.
- Implement procedures for Expediting, Processing and Approval of Shop Drawings.
- Record Day-to-Day Field Notes and Progress of Project.
- Submit written Progress Reports. Maintain Daily Logs.

PROJECT COMPLETION & CLOSE-OUT:

- Maintain Records of all necessary Contracts, Drawings, Samples, Purchases, Materials, Equipment, Maintenance Logs, Operating Manuals, Instructions, etc.
- Maintain a full set of Construction Documents, Specs and Operating Manuals.
- Track Changes & Revisions to Construction Documents.
- Draft "As Built Drawings" for entire project, including changes by Tradesmen.
- Determine Substantial Completion dates.
- Collect and Organize Warranties. Deliver to Owner at end of job.
- Coordinate Start-Up of Utilities, Equipment & Machinery Testing.
- Maintain Check Lists and Log results.
- Determine dates for Final Inspections.
- Notify OAC, Inspectors & Consultants to observe Final Inspections by City.
- Secure and Submit required Guarantees, Affidavits and Release of Liens.
- Deliver Plans, Warranties, Lien Releases and keys to Owner.

CM TEAM DUTIES

Construction Management Team Responsibilities

Owner's representative assumes responsibility for managing the project during construction. Duties are as follows:

- 1) Maintain competent supervisory staff to coordinate and provide general direction of the work and progress of the subcontractors at the job site.
- 2) Inspect the work during the construction phase through final completion and acceptance by the owner.
- 3) Assure that the materials furnished, and work performed is in accordance with construction documents, working drawings and specifications.
- 4) Establish an organization and lines of authority to expedite the overall plans of the construction team.
- 5) Establish procedures for coordination between owner, architect/engineer, contractors and construction manager with respect to all aspects of the project and implement the procedures.
- 6) Refer all questions relative to interpretation of design intent to the architect/engineer.
- 7) Maintain job site records and make appropriate progress reports.
- 8) In cooperation with the A/E, establish procedures to be followed for expediting and processing all shop drawings, samples, catalogues & project documents.
- 9) Implement an effective labor policy in conformance with local, state and national labor laws.

- 10) Review the safety and Equal Employment Opportunity (EEO) programs of each contractor and make appropriate recommendations
- 11) Review and process all applications for payment by involved subcontractors, material suppliers and vendors in accordance with the terms and general conditions of the contract.
- 12) Make Recommendations for and process requests for changes in the work and maintain appropriate change order records.
- 13) Schedule and conduct job meetings to ensure the orderly progress of the work.
- 14) Provide data processing services as may be appropriate to monitor accounting, budget and scheduling functions.
- 15) Furnish either with our own forces or others all general conditions items as required.
- 16) Performed portions of the work with our own forces if requested by the owner to do so.
- 17) Provide continuous and close monitoring of the progress schedule, coordinating/expediting the work of all subcontractors. Provide periodic status reports to the construction team members.
- 18) Establish and maintain an effective cost control system; continuously monitoring all project costs.
- 19) Schedule and conduct progress meetings to review costs.
- 20) Be responsible for periodic reports to the team on cost status.
- 21) Be responsible for maintaining clear lines of communication between project team members.

Additional coordination is necessary between owner and the architect/engineers (A/E). These divisional responsibilities are outlines on the following pages:

Division of Responsibility for Performance

Legend

- 1 = Major Responsibility
- 2 = Minor Responsibility
- 0 = No Responsibility

Early in the planning stages this schedule shall be reviewed and agreed upon by all team members. All parties must agree who has the prime responsibility for each activity.

The chart was prepared to interface with the Owner/Contractor Manager Agreement (AGC Standard Form #510 and with AGC #500 Guaranteed Maximum Price (GMP) Amendment and AGC Document No. 520 General Conditions for trade contractors under construction management agreements.

Team Selection

Initiate Project Concept

Owner Selects Construction Manager

Owner Selects Architect/Engineer

Establish Team Responsibilities

Establish Fees

Execute Contractual Agreements

Establish Communication Procedures

OWNER	A/E	CM
1	0	0
1	2	1
1	1	2
1	1	1
1	1	1
1	1	1
2	2	1

Conceptual Planning

Develop Program

Establish Policy

Establish Tennant Occupancy Schedule

Establish Budget Guidelines

Establish Owner's Budget Analyze

Program vs. Budget

Adjust Program vs. Budget Develop

Environmental Program

Study Space Relationships Evaluate Strategies

Conduct Utilities Evaluation

Coordinate with Government Agencies

Develop Conceptual Estimate

Evaluate Budget vs. Estimate

Study Financial Feasibility

Conduct Financing Study

Develop Preliminary Project Master Schedule

Conceptual Planning Report

Set Communications Procedures

OWNER	A/E	CM
1	2	0
1	0	0
1	0	0
1	0	0
1	2	2
1	1	1
1	1	1
0	1	2
2	1	0
2	1	1
0	1	2
2	1	2
0	0	1
1	1	1
1	0	0
1	0	2
2	2	1
0	1	1
2	2	1

Conceptual Planning

Develop Security Program

Owner's Review and Approval

OWNER	A/E	CM
1	2	2
1		

Schematic Design

Interpret Program

Refine Program (relating to program: budget: estimate)

Prepare Detailed Architectural/Engineer Design Schedule

Prepare Schematic/Conceptual Drawings

Prepare Outline Specifications

Retain Special Consultants

Conduct Environmental Study

Prepare Alternate Schemes

Analyze Alternate Schemes

Recommended Basic Materials and Systems

Prepare Functional and Flow Diagrams

Conduct Economic Energy Study (infrastructure)

Review Architectural/Engineer Submission

Conduct Value Engineering Analysis

Refine Budget

Establish Reporting and Accounting Procedures

Develop Bid Package Format

Prepare Unit Cost Analysis

OWNER	A/E	CM
1	2	0
1	1	1
0	1	0
0	1	0
2	1	2
2	1	2
0	1	0
0	1	2
0	1	1
0	1	1
0	1	0
0	1	1
1	0	2
0	1	1
1	2	2
2	2	1
0	1	1
0	2	1

Schematic Design

Identify Long-Lead Purchase Items

Develop Phased Construction Schedule

Initiate Preliminary Governmental Agency Review

Initiate Preliminary Utility Company Review

Initiate Preliminary Insurance Company Review

Update Conceptual Estimate

Update Master Schedule

Update Project Budget

Analyze Budget vs. Estimate

Schematic Design Report/Presentation

Owner's review and Approval

OWNER	A/E	CM
0	2	1
0	2	1
0	1	2
2	1	2
2	1	2
0	0	1
0	0	1
1	2	1
1	1	1
0	1	1
1		

Design Development

Refine Program

Update Design Schedule

Firm Up Budget

Prepare Preliminary Design and Basic Plan

Develop Outline Specifications

Prepare Preliminary Estimates

Update Space Program Analysis

Evaluate Architectural Component and Systems Alternates

Evaluate Structural Systems

Evaluate Mechanical and Electrical Systems

Finalize Selection of Components and Systems

Conduct Value Engineering Analysis

Refine Outline Specifications

Complete Design Development Drawings

Update Master Schedule

Establish General Conditions

Evaluate Need for Phased Bid

Evaluate Labor and Subcontractor Market

OWNER	A/E	CM
1	1	1
0	1	1
1	2	2
0	1	0
0	1	2
0	2	1
2	1	0
0	1	1
0	1	1
1	1	1
0	2	1
0	1	2
0	1	0
2	2	1
2	2	1
2	2	1
0	0	1

Design Development -Continued

Prepare Preliminary Construction Schedule &
 Estimates Coordinate with Governmental Agencies
 and Utilities Prepare Trade Contractors Bid Lists
 Review Trade Contractors Bid
 Lists Update Master Schedule
 Review Design Submissions for Cost and
 Time Analyze Estimate (program vs. budget vs.
 estimate) Refine Project Budget
 Prepare Long-Lead Purchase and Phased
 Contractor Documents
 Bid Long-Lead Equipment and Materials
 Assurance of Project Financing
 Design Development Report
 Owner's Review and Approval

OWNER	A/E	CM
0	0	1
0	1	2
2	2	1
1	1	1
0	0	1
1	0	2
2	1	1
1	2	1
0	1	2
0	2	1
1	0	0
0	1	1
1		

Working Drawings & Bid Phase

	OWNER	A/E	CM
Establish General Conditions	1	2	2
Review and Approve Design	1	2	2
Submissions Review Design	1	0	2
Specifications	1	0	0
Approve Architectural/Engineer	0	0	1
Submissions Develop Preliminary	0	0	1
Construction Schedule Award Fast-	0	0	1
Track Contracts	2	2	1
Prepare Cash Flow	1	1	1
Schedule Prepare	2	2	1
Subcontractor List	0	1	0
Review Subcontractor	0	2	1
Lists Update Estimates	2	2	1
Prepare Contract Plans and	2	2	1
Specifications Conduct Subcontractor	0	2	1
Pre-Bid Conference Advertise, Receive	0	2	1
and Evaluate Bids Update Master	0	2	1

Pre-Construction Activities

Establish communication procedures

Explore energy conservation management systems

Prepare budget based on preliminary drawings

Monitor design phase schedule

Research with special consultants

Evaluate long-lead materials and equipment

Evaluate need for phased bids

Study the most efficient and economical construction sequence

Analyze alternate building schemes and techniques

Evaluate basement excavation and construction techniques

Evaluate site access/egress during excavation and construction phase

Evaluate mechanical and electrical systems

Evaluate security program

Study deep pile excavation: pc pile vs. pre-drill caisson

Study infrastructure limitations

OWNER	A/E	CM
1	1	1
0	1	2
0	2	1
0	1	2
1	1	1
0	2	1
0	2	1
0	2	1
0	1	1
0	1	1
0	2	1
0	1	1
1	1	1
2	2	1
1	1	1

Pre-Construction Activities

Study soil mixing wall vs. sheet pile

construction Evaluate labor and

subcontractor market

Stimulate the interest of subcontractors and vendors

Prepare preliminary project master schedule and management of subcontractors

Develop Preliminary milestone summary

schedule Negotiate contract with owner

Prepare cash flow schedule

OWNER	A/E	CM
2	2	1
0	0	1
0	2	1
0	2	1
2	2	1
1	0	1
1	0	1
2	1	1
0	2	1

Construction Activities

Issue Notice to Proceed

Establish Beneficial Occupancy

Schedule Develop CPM Construction

Schedule Approve Subcontracts

Approve Payment Schedule

Maintain Shop Drawings and Sample

Control Update Cost Report

Evaluate Progress and Update CPM

Schedule Negotiate and Expedite Change

Orders Approve Change Orders

Conduct Job Meetings

Interpret Plans and Specifications

Provide Job Inspection

Administer Jobsite Safety Program

Administer Jobsite Security

Program Administer Quality Control

Program Coordinate Owner Move-

In Schedule Prepare Punch List

OWNER	A/E	CM
1	2	2
1	2	2
0	0	1
1	0	0
1	1	2
0	2	1
0	0	1
0	2	1
2	2	1
1	1	0
0	2	1
0	1	0
0	1	0
0	0	1
0	0	1
0	2	1
1	1	1
2	1	2

Construction Activities

Certify Satisfactory Completion

Prepare Record Set Drawings

Submit Operations Manuals and

Warranties Perform Final Accounting

OWNER	A/E	CM
2	1	0
0	0	1
0	2	1
0	0	1

RESPONSIBILITY FOR PERFORMANCE OF THE CONTRACT

LEGEND:

1 = Major Responsibility 2 = Minor Responsibility 0 = No Responsibility	Owner = O Architect/Engineer = A Contractor = C
---	---

AIA DOCUMENT A101

SUBCONTRACT AGREEMENT BETWEEN CONTRACTOR AND PRIME CONTRACTOR

ARTICLE 1

The contract documents:

Contract Document Activity	Responsibility		
	O	A	C
Update design schedule	1	1	0
Procure partial building permit	2	0	1
Implement phased construction	1	2	1
Establish on-site staff	1	2	1
Bid and purchase long-lead items	1	2	1
Prepare contract plans and specifications	0	1	0
Finalize construction estimates	1	0	1
Finalize project budget	1	2	1
Prepare cash flow schedule	1	0	
Review contract plans and specifications	1	1	1
Finalize trade contractor bid lists	1	2	1
Final governmental agency review and approval	2	1	0
Final insurance company review	1	2	1
Update construction schedule	1	0	1
Procure final building permit	2	0	1
Contract document report	1	1	0

ARTICLE 2

The work of this contract:

Construction Activity	Responsibility		
	O	A	C
Probe and grout work	2	0	1
Mobilization for construction	0	0	1
Set-up project files	1	1	1
Verify and monitor insurance & bond requirements	1	0	1
Approve trade contractors' progress payments	1	2	0
Establish shop drawing and sample procedures	1	1	0
Maintain shop drawings and sample control	1	1	1
Documentation issuance and control	1	1	1
Update cost report	1	0	0
Determine scopes of work	1	2	1
Evaluate progress and update schedule	1	2	
Prepare project breakdown schedule	1	0	1
Prepare project chart of accounts and correlate to project breakdown schedule (i.e. who is going to do what, by whom, and when)	1	0	2
Identify responsible and performing organization for each required task	1	0	2
Prepare the master plan and schedule	1	1	1
Prepare project cost performance reports	1	2	2
Prepare the project detailed milestone plan and	1	2	1
Identify the critical schedule items	1	2	1
Identify and order long-range building materials (list the contracts and deliverable dates)	1	1	1
Establish project direct labor and other source requirements	1	2	1
Obtain resource availability reports	2	0	1
Assure project task plans and schedules are based on available resources	2	0	1
Prepare and issue approved task budget and work orders for each task or subtask	1	0	1
Prepare and issue contracts or purchase order for outside organizations	2	0	1
Prepare and issue status reports	1	1	1

Negotiate and expedite change orders	1	2	
Approve change orders	1	2	
Inspect and monitor trade contractor's work	1	2	
Inspect for conformance to design	2	1	
Engineering documentation	2	1	
Interpret plans and specifications	0	1	1
Conduct job meetings	1	2	1
Provide job inspection	2	1	
Administer job-site safety program	2	0	1
Administer drafting policy	1	1	1
Administer quality control program	1	2	1
Establish priorities and emergency policy	1	1	1
Coordinate owner occupancy schedule	1	1	1
Prepare punch list	1	1	1
Certify substantial completion	1	1	1
Prepare as built drawings	0	1	0
Prepare technical specifications	2	1	0
Submit operation manuals and warranties	1	2	1
Perform final accounting	1	0	
Post Construction Activity			
Perform guarantee requirements	1	2	1
Provide continuing consultation	1	1	1

ARTICLE 3

Date of commencement and final completion:

Completion Activity	Responsibility		
	O	A	C
Issue notice to proceed			
Establish beneficial occupancy schedule	1	0	
Develop CPM construction schedule	1	2	
Filing of mortgages, mechanics' liens, security interests	1	0	

ARTICLE 4

Contract sum:

Item Activity	Responsibility		
	O	A	C
Establish lump sum contract	1	0	1
Approve change orders as provided in the contract documents	1	2	

ARTICLE 5

Progress payments:

Payment Activity	Responsibility		
	O	A	C
Establish accounts payable procedures	1	2	
Establish project scope and funding policy	1		
Establish proposal funding policy	1		
Submit schedule of values and monthly application for payment	0	0	1
Verify payment request	1	2	0
Calculate retainage percentages and execute progress payment			
Maintain finance accounting of accounts payable and receivable for construction management	1	0	
Interpret project accounting with company accounting for audit controls	1	0	2

ARTICLE 6

Final payment:

Completion Activity	Responsibility		
	O	A	C
Perform final accounting for project close-out	1	0	
Process final certificate for payment	1	2	
Prepare and execute final lien waivers and release of lien documents	1	2	1
Close-out financial documents and records	1	2	
Audit final charges and costs	1		
Prepare final project financial report	1		
Collect receivables	1		

ARTICLE 7

Miscellaneous provisions:

Item Activity	Responsibility		
	O	A	C
Unpaid payments after due dates shall bear interest according to prime interest rate	1	0	2
Verify and document compliance with all contractual terms	1		
Prepare and conduct defense against claims	1	1	1

ARTICLE 8

Termination or suspension:

Item Activity	Responsibility		
	O	A	C
Professional parties to be monitored and held accountable according to Article 14, "termination or suspension of the contract" established in the	1	2	

ARTICLE 9

Enumeration of contract documents:

Item Activity	Responsibility		
	O	A	C
Continuous monitoring of active projects to assure contractual performance	1	2	1
Monitor the execution of the supplementary and other conditions of the contract contained in Attachments "A, B, and C"	1	1	1

ARTICLE 10

Working Drawings:

Completion Activity	Responsibility		
	O	A	C
Establish general conditions	1	2	2
Review & approve design submissions	1	2	0
Review & approve A/E submissions	1	0	0
Award fast-track contracts	1	0	0
Prepare subcontractor list	1	2	1
Review Subcontractor list	1	1	1
Prepare contract plans & specifications	0	1	0

Subcontractors Contract Check List

- Executed Contracts
- Lien Releases
- Certificate of Insurance
- Proposal

AUTHORIZATION TO PROCEED / NOTICE TO PROCEED

DATE: _____

TO: _____

ADDRESS: _____

Attention: Mr. Smith

References: "Authorization to Proceed" (ATP) for "Subcontractor Construction Services"

OR "Notice to Proceed" (NTP)

Dear Mr. Smith:

This letter represents an Authorization to Proceed ("ATP"), subject to your agreement by execution as provided for below, between **CLIENT NAME ("ACRONYM")** having a place of business at **ADDRESS** Houston, Texas **ZIP CODE**, and Tech-Seal International (TSI) having a place of business at 3131 W. Little York Road Houston Texas 77091 hereinafter referred to as "General Contractor".

This ATP signifies the intention of the parties to execute a **LUMP SUM, COST PLUS (LS, CP)** type contract to be provided by TSI and mutually negotiated upon between the parties for work generally set forth in the Construction Documents dated **INSERT DATE** as provided by **INSERT ARCHITECT** (Attachment 1) and is incorporated herein by reference.

Pending execution of a definitive contract, the General Contractor, as of **INSERT DATE** ("Effective Date") is hereby authorized and agrees to immediately commence work consistent with the terms and conditions contained in this ATP attachments. The definitive contract, bearing the same starting date and number, will supersede this ATP in its entirety and will include all terms and conditions as may be mutually agreed upon by the parties.

The maximum amount for which **CLIENT ACRONYM** will be liable ("Maximum ATP Liability") under this ATP is **\$INSERT DOLLAR VALUE** through **INSERT DATE**. Any expenditure or obligation incurred by the General Contractor in excess of **\$INSERT DOLLAR VALUE** and/or beyond the authorized performance date or the authorized work effort and funding shall be at the General Contractor's own risk. At its sole discretion and upon written notice, **CLIENT ACRONYM** may change the funded amount and/or period of performance under this ATP. The parties anticipate that the definitive contract resulting from this ATP will be negotiated at a price not to exceed **CONTRACT VALUE** (including the **\$INSERT DOLLAR VALUE** authorized under this ATP).

The parties agree to negotiate in good faith the terms and conditions applicable to the definitive contract. It is further understood that the parties will enter into a definitive contract as soon as practicable, but no later than **INSERT DATE** ("ATP Expiration Date"), unless otherwise extended in writing by **CLIENT ACRONYM**. The General Contractor shall not accept oral statements or written direction from any **CLIENT ACRONYM** personnel, other than from the President, V.P. or Owner's Rep which modifies or otherwise affects the term and conditions of this ATP in writing.

In the event that a definitive contract is not executed by the parties prior to General Contractor reaching the Maximum ATP Liability or ATP Expiration Date as set forth above, this ATP will automatically terminate and **CLIENT ACRONYM** shall not be obligated to pay for any work performed beyond such termination. **CLIENT ACRONYM** may by written notice prior to General Contractor's delivery of the materials or equipment or performance of services, cancel this ATP in whole or in part for its convenience. Upon such cancellation and after receipt of General Contractor's final invoice, **CLIENT ACRONYM** shall pay the General Contractor only for expenses reasonably incurred and for services satisfactorily performed in the judgment of EE for the period up to and including the effective date of the cancellation. In no event will **CLIENT ACRONYM** liability be in excess of the Maximum ATP Liability stated herein.

CLIENT NAME looks forward to working with TSI and finalizing a definitive contract. Please indicate your acceptance of this ATP by affixing your signature in the space provided below and return to my attention. E-mail is acceptable (with the original to follow via U.S. Mail); my fax number is (XXX) XXXXXXXX. Should you have any questions concerning this matter, please do not hesitate to contact me at (XXX) XXX-XXXX.

Sincerely,

**CONTACT
TITLE**

ATP received and accepted:

By:

Title: _____

Date: _____

JG GEIS – OWNER’S REP SAMPLE
ADDRESS
CITY

SUBCONTRACTOR AGREEMENT

Construction Site: (Name & Description)

Address: _____

General Contractor: NAME

ADDRESS

CITY & STATE & ZIP CODE

Contact: JG GEIS-Owner's Rep

Phone: (512) 586-1938

Subcontractor: Juan Cortez - Owner

Address: 2222 Crockett Martine Bird

City, State 00000

Fed. Tax ID No. XXX-XXXX

Contact: Juan Cortez

Driver’s License # 00000000

Social Security # 000-000-000

Phone: 1 (XXX) 000-0000 cell

Work to be Performed: See Exhibit Site Drainage Plan Sheet C-2a

CONTRACT AMOUNT: \$22,222.00

PAYMENT SCHEDULE:

1st Payment: After Pond is dug.

2 Payment: On completion of Concrete Channel & Final Grading.

3rd & Final Payment: 10% (\$00,000.00) - After Final Inspections & Approvals.

Terms and Conditions

1. Prior to commencing work, Subcontractor shall provide General Contractor with a certified of General Liability Insurance, effective for the entire period of the contract. If Subcontractor does not provide the certificate of insurance required, General Contractor may purchase General Liability Insurance to cover Subcontractor and withhold \$250.00 plus the cost of the insurance from the payment due Subcontractor under this contract.
2. Subcontractor shall be responsible for their own rental of Heavy Equipment, Excavator, Bulldozer, Bobcat, Frontend Loader's, Fuel Costs and Repair's as needed for a complete turnkey job through final inspections.
3. Subcontractor shall be responsible for all damages to the construction site caused by the Subcontractor, its agents or employees.
4. The Work Schedule from Start to Finish shall take no more than 21 days, i.e. pending inclement rain conditions.
5. Failure by Subcontractor to report to the construction site for more than one week during the contract period may result in the cancellation of this contract, at General Contractor's option.
6. General Contractor does not approve of the employment of illegal aliens on the job site. Subcontractor shall be responsible for any and all losses and/or penalties incurred due to Subcontractor employing illegal aliens.
7. All citations issued by City of Houston or OSHA Inspector's relating to Scope of Work to be paid by Subcontractor.
8. General Contractor shall retain 10% of the contract until finalization of all State Inspections. General Contractor is authorized to collect damages from conditions 2 and 3 above.

Agreed and Accepted Date:

General Contractor

Signature: _____

CONTRACT WRITE-IN CLAUSES

CONTRACTOR:

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, the Architect, Architect's Consultants, the Construction Manager, and their agents and employees from and against all claims, damages, losses and expenses, including, but not limited to, Attorneys' fees arising out of or resulting from the performance of the work including claims asserted by Subcontractors and suppliers of the Contractor, except those claims asserted by Subcontractors and Suppliers of the Contractor, except those claims, damages, losses and expenses caused by the sole negligence of the Owner, Architect, Architects Consultants, construction Manager and their Agents and Employees.

CONSTRUCTION MANAGER CONTRACT:

The Contractor warrants to the Owner, the Architect and the Construction Manager that all materials and equipment furnished under this contract will be new unless otherwise required or permitted by the contract documents, that the work will be free from defects not inherent in the quality required or permitted, and that the work will conform with the requirements of the contract documents. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by the Architect or the Construction Manager, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. The Contractor warrants the work, and all parts thereof, for a period of one (1) year from the date of substantial completion.

APPLICATIONS FOR PAYMENT:

The Contractor shall submit to the construction manager an itemized application for payment and current schedule of values notarized if required, supported by such data substantiating the Contractor's right to payment at the Owner, the Architect of the Construction Manager may require and reflecting retainage if any, as provided elsewhere in the contract documents and shall include a waiver of the Contractor and its subcontractors and suppliers, Mechanics & Material mans lien rights. The Construction Manager will assemble the application with similar applications from other Contractors on the project into a combined project application for payment and forward it with recommendations to the Architect within (7) seven days.

MISSION GUIDELINES

MISSION:

Provide our client with the highest possible level of excellence and integrity in putting a complete range of materials in place in a timely and efficient manner.

COMPANY RULES:

1. Be honest.
2. Communicate appropriately.
3. Speak with good purpose and good intent.
4. Keep agreements made.
5. Communicate openly.
6. Drop whatever is not working.
7. Communicate problems, Focus on a solution.
8. Share knowledge, support co-workers and work as a team.

CHAIN OF COMMAND AND
JOB DESCRIPTION

SUMMARY

1. ASSISTANT PROJECT MANAGER/PROJECT MANAGER

- Study/analyze/estimate and establish construction budget
- Maintain project documentation files, daily reports, budgets, schedules; record key decisions, dates, person, etc.
- Attend weekly meetings and act as liaison with principal in charge
- Risk management
- Quality control of on-site activities to ensure adherence to plans and specifications
- Coordinate with consultants and subcontractors during various construction stages
- Represent owner's interest and maintain client relations
- Review and approve monthly billings
- Handle change orders, submittals, shop drawings, payment request, and project close out negotiations

2. CONTRACT ADMINISTRATOR — LEGAL SECTION (ADMINISTRATION)

- Prepare and review construction contracts, employment contracts, and other legal documents
- Attend meetings to negotiate and establish contract conditions
- Maintain contract files and recommend system for field office documentation control
- Public relations
- Personnel — employee recruiting
- Logistics and communication systems
- Procurement of office furniture, computer systems, and other equipment/furnishings

3. SECRETARY — ACCOUNTING SECTION

- Handle routine correspondence to Head Office
- Prepare payment request and deposits
- General office duties
- Create various documents using spreadsheets and word processing

4. SECRETARY

- Compose and type letters and various correspondences for project staff
- Filing and another project support
- General office duties

5. RECEPTIONIST

- Answer phones and provide guest with reception
- Make restaurant and other reservations.
- Send and receive courier/special deliveries
- Handle daily mail
- Order blueprints and other reproduction services
- General office duties

6. RECEPTIONIST HEAD OFFICE

- Answer phones and provide guest with reception
- Travel and other reservations
- Send and receive courier/special deliveries
- Handle daily mail
- Order blueprints and other reproduction services
- General office duties
- Executive assistant for President

FRONT OFFICE - Daily Procedure

- AM
1. SCREEN CALLS — see telephone procedure
 2. MAKE COFFEE — clean out old grounds, take cups and stuff to washroom and rinse out; fill water container and make a fresh pot; keep coffee area neat
 3. NEWSPAPER — it's delivered to the front of the building by 6 a.m., one always has the company name on it; throw out the old paper on a daily basis
 4. XEROX MACHINE — turn it on and refill paper tray: periodically check powder level and wipe glass.
 5. STRAIGHTEN OUT OFFICE — straighten out cushions, magazines, miscellaneous crud
 6. APPOINTMENTS FOR THE DAY — list everyone's appointments as completely as possible in schedule book; make note of any changes; call ahead to confirm an appointment if there seems to be a question or conflict
 7. HANDLE CORRESPONDENCE — type, mail, forward, file outgoing memos, invoices, letters, etc. Use IN/OUT trays at front desk
 8. COORDINATE PICKUPS & DELIVERYS — call shop and make sure any bids, new projects, addenda, etc. are picked up or delivered by our driver.
 9. OPEN ALL COMPANY MAIL — sort bills (invoices), statements, correspondence, misc. junk into separate piles. Stamp all with 'received —date'; hit all invoiced with A/P stamp; file into assorted boxes. All magazines are put in front, older issued recycled, all correspondence using in boxes; save all clean reusable envelopes
 10. HANDLE SPECIFIC ASSIGNMENTS — these are usually in memo form from and vary in scope from a quick phone call to an in-depth endeavor. Each project should have a specific folder, either in conjunction with existing files or in the general office files.

11. **FILE** — all incoming and outgoing correspondence, posted invoices from accounting, plans, specifications, change orders, etc. to be put in chronological order in the proper file; see procedures on filing.

SECRETARY
JOB

DESCRIPTION

Secretary of Business Meetings

Keep written records of:

- Members present
- Introduction of
Business
- Motions and Resolutions
- Seconding
- Motions Stating
- Questions Debate
- Secondary Motions
- Putting the Questions and Announcing the Vote
- Date and Place of Meetings, length of Meetings

Have the written records of each meeting typed and approved by Chairperson within seven (7) days after the meeting.

Send approved written records of each meeting to OAC Staff members at least one (1) week prior to next scheduled meeting.

BOOKKEEPER/OFFICE MANAGER

Account Receivable — Includes maintenance of A/R log, receipt of payments, application of payments, computer input and vender list for computer accounts receivable, monthly proof of AIR to G/L and monthly AIA billings for jobs in progress.

Accounts Payable — Maintain Subcontractors Log by job by vendor, payments to subcontractor based on AIA billing, maintain A/P sub-payment files, monthly proof to G/L. Check subcontractor invoices against contract for services. Work with contract administrator on payment to subcontractor on change orders.

Payroll — Maintain individual employee files, quarterly and monthly tax liability and reports, unemployment forms.

Miscellaneous — Liaison between CPA and compute, monthly bank statement proof, maintain checking and savings accounts, monthly proof to G/L, computer input.

Office Manager — Institute and enforce policies and procedures, train office personnel, hire/fire office personnel. Answer phones. Supervise office personnel.

Other duties. To be assigned as needed.

GENERAL SHOP RULES

1. Safety first.
2. Starting Time: 7:00 a.m. — 4 to 10 hours a day unless otherwise advised.
3. Each person is to keep track of his or her timecards on a daily basis.
4. Once a week everyone helps with thorough shop cleaning.
5. Everyone is to clean up after himself / herself on a daily basis.
6. USE TRASH DISPENSER'S. Do not throw trash on ground.
7. Do not operate any tool until you have been instructed on its use, operation, and safety.
8. Lock all doors.

SHOP HELPER & DRIVER RESPONSIBILITIES

If you are just starting in the carpentry trade, chances are you will spend some time in one of these two positions. Do not make the mistake of underestimating the importance of these two positions. This is where you really start learning and building an interest in the trade.

Here are some of the responsibilities of the driver:

1. To pick up correct materials at supplier and deliver them in a safe and protected manner to shop or job.
2. To be absolutely sure that what is signed for is what we are getting.
3. To properly fill in P.O.'S and credit memos.
4. To stock and properly label all items brought back from vendor or jobs.
5. To be sure that all tools and merchandise to be locked in shop and left in truck overnight, that truck be locked, and keys returned to office every working day, whoever may be driving company trucks.
6. To inform shop superintendent in writing of any mechanical, tire, license, or accident problems with vehicles.
7. To check oil and transmission fluid upon every fill of gas.
8. To familiarize himself with any new material and correctly store or make storage space for all new material.
9. Signing out and in, tools from jobs.
10. When driver is not on driving detail, he will be considered a shop helper.

APPRENTICE RESPONSIBILITY

If you are just starting in the carpentry trade, chances are you will spend some time in one of these two positions. Do not make the mistake of estimating the importance of these two positions. This is where you really start learning and building an interest in the trade.

1. To open back door in the morning and to lock up the same night, every working day.
2. To give assistance to any shop operations cutting panels, assembly, sanding, clean up and stocking lumber, etc.
3. To keep all work areas safe and clean from hazardous mess.
4. To check oil levels in compressors compiling all dull blades, bits, saws, etc., and stocking in office at least once a week.
5. To efficiently and thoroughly clean shop, including table behind radial arm saw, inside saw, blowing off all tabletops, bottoms and motors, etc.
6. Putting all jigs, patterns and tools in proper places, sorting falls off, sweeping floors, and disposing of all garbage.
7. To acquire as much knowledge and good working habits as you are exposed to as this will help you become a good finish carpenter.

CABINET MAKER

A Person who is acquired a sophisticated level of knowledge and skill in working with wood, plastics and metal may consider himself a cabinet worker.

Listed below are some of the skills expected of a cabinet maker, not to be limited to the following:

1. Ability to read blueprint, shop drawings and technical specifications.
2. Ability to layout work, generate accurate material takeoffs, schedule cutting and assembling operations.
3. Knowledge of all types of hardwoods, veneers and plastic laminates, glues.
4. Skilled in all types of fastening and clamping systems.
5. Knowledge of joinery, cabinetry and casework construction, and ability to distinguish between premium, custom and economy grade work.
6. Ability to loft and construct work in an organized and efficient manner. Being conscious of the form and function of the final product.
7. Thorough knowledge of shop equipment, care and maintenance, lubrication, sharpening, pattern and production jiggling operations.
8. A broad knowledge of hardware, proper installation and adjustment, and uses of hinges, closers, pulls, latches, etc.
9. Basic knowledge of commercial and residential construction, and installation techniques including reading and understanding architectural and shop drawings.
10. Ability to train apprentices, helping fellow workers to pick up good working techniques and habits.

FINISH CARPENTERS

A person who has acquired a broad knowledge of working with all types of materials including soft and hard woods, veneers, plastic laminates and assorted finished wood and metal products, including doors, windows, casing and trims as well as being proficient installing cabinets and counter tops. A person must have an interest in learning more about his or her trade, keeping up with new products and technology and have at least two to four years of on the job and school training experience.

Listed below are some of the skills expected to Finish Carpenters and Apprentices.

1. Strive to do your best on all work projects in accordance with quality of work desired by architect or owner.
2. Follow instructions given you.
3. Be very clear on all work details given to you, if any doubts ask questions. "Do not assume anything."
4. To have the ability to measure accurately and correctly. (If working with fellow workers always synchronize your tapes.)
5. Being able to set up shop and field tools for basic milling and finishing procedures in a safe and conscious manner. Again, ask questions if in doubt.
6. Familiar with all fastening, glue and clamping operations.
7. Clean your mess and help keep all work areas clean and safe.
8. Help in teaching other helpers and apprentices.

PROJECT SUPERINTENDENT

Projects up to a certain size can be handled entirely by the Project Superintendent. Beyond this certain limit, the Operations Manager will oversee the entire project, especially as it interfaces with the other company projects.

The Operations Manager and Project Superintendent are expected to work as a team. Each required a great deal of assistance from the other, as well as cooperation and honesty. This portion of the manual describes only those duties that are exclusively or predominantly the responsibility of the Superintendent within this context.

On jobs where there is no Operations Manager, the Superintendent will review the activities normally handled by the Operations Manager to specifically determine which item will be handled by his/herself and which will be handled by others.

In general, the Project Superintendent is responsible to the Operations Manager for the complete management of on-site operations including but not limited to the following:

1. Running the project within the schedule and budget limits.
2. Coordinating subcontractors and employees work.
3. Monitoring and maintaining a high level of quality of work by all parties involved.
4. Insuring the most economical utilization of labor, materials, equipment, and time.
5. Prepare detailed schedules with Operations manager, update weekly, and inform all parties concerned.
6. Establishing quantities of materials needed and scheduling their delivery.
7. Assure accuracy of building layout.

8. Prepare daily report on job progress, the labor force, materials delivered and in place.
9. Report all delays and difficulties by subcontractors in writing and any back charges to subcontractors.
10. Inform operations manager of any potential controversies arising at job site.
11. Assigns cost codes to all material purchase orders and delivery slips.
12. Ensure adequate security of materials and equipment at jobsite.
13. Reports all thefts or damage willful or accidental to Operations Manager.
14. Keeps jobsite clean and presentable.
15. Authorize emergency work by subcontractors.
16. Hiring and firing any additional personnel that may be required.
17. Recommend the terminations of any subcontractors and employees.

It is this company's policy that our clients receive the best value for their money. Fast, clean, organized projects are the least costly projects. Towards this end, the Project Superintendent is expected to prepare a detailed schedule at least a week in advance, arrive at the site at least 15 minutes before the scheduled start of the working day and make full use of all the company's resources.

OPERATIONS MANAGER EXPEDITER

Projects up to a certain size can be handled entirely by the Project Superintendent, with only periodic assistance from the Head Office. Beyond this certain limit, which varies with the degree of complexity involved, the Operations Manager will oversee the entire project, especially as it interfaces with other projects and aspects of the company's operation.

The Operations Manager and Project Superintendent are expected to work as a team. Each requires a great deal of assistance from the other, as well as cooperation and honesty. There is a certain amount of overlap in the duties performed by both. However, certain activities are either exclusively or mostly the responsibility of the Operating Manager and this section of the manual is intended to provide a comprehensive description.

- 1. Managers overall work-in-progress and expedites all phase of operations**
- 2. Oversees all project superintendents.**
- 3. Prepares preliminary progress schedules after careful review of all plans and specifications.**
- 4. Maintains harmonious relations with clients.**
- 5. Handles overall negotiation with subcontractors on all phases of work.**
- 6. Ensures all permits have been obtained.**
- 7. Expedites complete handling of shop drawings.**
- 8. Prepares detailed scheduling of work with project Superintendent.**
- 9. Obtains all lien waivers, insurance statements, bonds, guarantees, and any other required items from subcontractors.**
- 10. Presides over job-site conferences and keep minutes of the meetings.**
- 11. Responsible for documenting in writing, any items which may be subject to future dispute or negotiation.**

ON-SITE CONSTRUCTION MANAGERS JOB DESCRIPTION

CONSTRUCTION MANAGERS RESPONSIBILITIES:

The "ON-SITE CONSTRUCTION MANAGER" will furnish day to day business administration and construction management services in an expeditious and economical manner. The Construction Manager's Basic Services consist of two Phases described below.

Preconstruction Phase

Provide preliminary evaluation of the program and Project budget requirements. The Design and Architectural Team prepare preliminary estimates of construction cost for early schematic design based on area, volume or other standard. Assist the design team in mutually agreed upon program and project budget requirements and other design parameter. Provide cost evaluations of alternative materials and systems.

Review designs during their development. Advise on site use and improvements, selection of materials, building systems and equipment and methods of project delivery. Provide recommendations on relative feasibility of construction methods, availability of materials and labor, time requirements for procurement, installation and construction, and factor related to cost including, but not limited to, cost of alternative designs or materials, preliminary budgets and possible economies.

Provide for the Owner and The design team review and acceptance, and periodically update, a Project Schedule that coordinates and integrates the Construction progress and design teams and Owners responsibilities with anticipated construction schedules.

Provide third party estimator construction cost estimates detailed under the definition of **Construction Costs** section of this document. Advise the Owner and the Design Team if it appears that the Construction Costs may exceed the Project Budget. Make recommendations for corrective action.

Coordinate Contract Documents by consulting with the Owner and the Design Team regarding Drawings and Specifications as they are being

prepared, and recommending alternative solutions whenever design details affect construction feasibility, cost or schedules.

Provide recommendations and information to the Owner regarding the assignment of the responsibilities for safety and precautions and programs (OSHA equivalent); temporary Project facilities; and equipment, materials and services for common use of Contractors. Verify that the requirements and assignments of responsibilities are included in the proposed Contract Documents.

Advise on the separation of the Project into Contracts for various categories of Work. Advise on the method to be used for selecting Contractors and awarding Contracts. If separate Contracts are to be awarded, review the drawings and specifications and make recommendations are required to provide that (1) the Work of the separate Contracts is coordinated, (2) all the requirements for the project have been assigned to the appropriate separate Contract, (3) the likelihood of jurisdictional disputes has been minimized, and (4) proper coordination has been provided for phased construction.

Develop a Project Construction Schedule providing for all major elements such as phasing of construction, interim construction phase periods, times of commencement and completion required for each Contractor. Provide the Project Construction Schedule for each set of Bidding Documents.

Investigate and recommend a schedule for the Owner's purchase of material and Furnishings, Fixtures and Equipment (FFE) requiring long lead time procurement including landscape materials. Coordinate the schedule with the early preparation of portions of the Contract Documents by the Architect and Design Team. Expedite and coordinate delivery of these purchases.

Provide an outline of the administration and labor staff by type and quantities required for the project. Each phase must be presented independent of the other including construction document and specification cost, make recommendations for economy and minimal adverse effects of labor and contractor shortages.

Make recommendations for pre-qualification criteria for Bidders and develop Bidders' interest in the Project. Establish bidding schedules. Prepare and issue Bidding documents to Bidders. Conduct pre-bid conferences to familiarize Bidders with the Bidding Documents and management procedures.

Assist the Owner and Architect with the receipt of questions from Bidders, and with the issuance of Addenda.

Receive Bids, prepare bid analyses and make recommendations to the Owner for award of Contracts or rejection of Bids.

Conduct pre-award conferences with successful Bidders. Prepare construction Contracts and Advise Owner on the acceptability of Subcontractor and material suppliers proposed by Contractors.

Construction Phase

The Construction Phase will commence with the award of the initial Construction Contract or purchase order.

Provide administrative, management and related services as required to coordinate Work of the Contractors with each other and with the activities and responsibilities of the Owner and the Architect to complete the project in accordance with the Owner's objectives for cost, time and quality. Provide sufficient organization, personnel and management to carry out the requirements of this job description.

Schedule and conduct pre-construction, construction and progress meetings to discuss such matters as procedures, progress problems and scheduling. Prepare and promptly distribute meetings minutes.

Consistent with the project Construction Schedule issued with the Bidding Documents, and utilizing the Contractor's Construction Schedules provided by the separate Contractors, update the Project Construction Schedule incorporating the activities of the Contractors on the Project, including activity sequences and durations, allocation of labor and materials, processing of shop drawings, product date, and samples, and delivery of products requiring long lead time procurement. Include Owner's occupancy requirements showing portions of the Project having Occupancy priority. Update and reissue the Project Construction Schedule as required show current conditions and revisions required by actual job conditions.

Endeavor to achieve satisfactory performance from each of the Contractors. Recommend courses of action to the Owner when requirements of a

Contract are not being fulfilled, and the nonperforming party will not take satisfactory corrective action.

Revise and refine the approved estimate of Construction Cost, incorporate approved changes as they occur, and develop cash flow reports and forecasts as needed.

Provide regular monitoring of the approved estimate of Construction Cost, showing actual cost for activities in progress and estimates for uncompleted tasks. Identify variances between actual and budgeted or estimated cost and advised the Owner whenever projected costs exceed budgets or estimates.

Maintain cost accounting record on authorized Work performed under unit costs, additional Work performed on the basis of actual cost of labor and materials, or other Work requiring accounting records.

Recommend necessary or desirable changes to the Owner and Architect/Design Team, review request for changed, assist the Owner in negotiating Contractor's proposals, submit recommendations to the Owner, and if changes are accepted, prepare change order for the Owner's authorization and signature.

Develop and implement procedure for the review and processing of Applications by the Contractors for progress and final payments. Make recommendations to the Owner for certification for payment.

Review the safety programs developed by each of the Contractors as required by their Contract Documents and coordinate the safety programs for the Project.

Assist in obtaining building permits and special permits for permanent improvement, excluding permits required to be obtained directly by the various Contractor. Verify that the Owner has paid applicable fees and assessments. Assist in obtaining approvals from authorities having jurisdiction over the Project.

If required, assist the Owner in selecting and retaining the professional services of surveyors, special consultants and testing laboratories. Coordinate their services.

Determine in general that the work of each Contractor is being performed in accordance with the requirements of the Contract Documents. Endeavor to guard the Owner against defects and deficiencies in the Work. As appropriate, require special inspection or testing, or make recommendations to the Owner regarding special inspection or testing, of work not in accordance with the provisions of the Contract Documents whether or not such Work be then fabricated, installed or completed. Subject to review by the Owner, reject Work does not conform to the requirements of the Contract Documents.

Consult with the Architect, Owner and design Team if any Contractor request interpretations of the meaning and intent of the Drawing and Specifications and assist in the resolution of questions which may rise.

Receive certificates of insurance form Contractors and forward them to the Owner.

Receive from the Contractors and review all Shop Drawings, Product Data, Samples and other submittals. Coordinate them with information contained in related documents and transmit to the Owner and Architect those recommended for approval. In collaboration with the Owner and the Architect establish and implement procedure for expediting the processing and approval of the shop Drawings, Product Data, Samples and other submittals.

Record the progress of the Project. Submit written progress reports of the Owner and the Architect including information on each Contractor and each Contractor's Work, as well as the entire Project, showings percentages of completion and the number and amounts of Change Orders. Keep daily logs containing records of weather, Contractor's Work on the site, number of workers, Work accomplished, problems encountered, and other similar relevant data as the Owner may require. Make the log available to the Owner.

Maintain at the Project site, on a current basis: a record copy of all Contracts, Drawings, Specifications, Addenda, Change Orders, As-built progress drawings (provided by Contractors) and other modifications in good order and marked to record all changes made during construction; Shop Drawings; Product Data; Samples; submittals; purchases; materials; equipment; applicable hand/code books; maintenance and operating manuals and instructions; other related documents and revisions which arise out of the Contracts of Work. Maintain records, in duplicate, of principal building layout lines, elevations of the bottom footings, floor levels and key site elevations certified by a qualified surveyor or professional engineer. Make all records available to the Owner and the Architect. At the completion of the Project, delivery all such records to the Architect and the Owner.

Arrange for the delivery and storage, protection and security for Owner purchased materials and furnishings, fixtures and equipment and systems which are part of the Project, until such items are incorporated into the Project.

With the Owners operations staff and personnel, observe the Contractor's checkout of utilities, operational systems and equipment for readiness and assist in their initial start-up and testing.

Prepare punch list of incomplete or unsatisfactory items and a schedule for their completion. Conduct inspections of the Contractor's pick-up Work for final sign off. With the Owner and Architect, certify the Date of Substantial Completion of the Work and recommending the times within which the Contractors shall complete uncompleted items on their Certificate of Substantial Completions of the Work.

Assist the Owner in applying and acquiring the final sign-off s from all governing agencies and obtain the certificate(s) of occupancy.

PROJECT ENGINEER
SUMMARY
JOB DESCRIPTION

CHAIN OF COMMAND FOR THE CONSTRUCTION MANAGEMENT TEAM:

- Vice President/Director:
- Chief Project Manager:
- Senior Project Manager:
- Project Manager:
- Project Engineer:

As discussions from daily to weekly meetings occur, scheduling and budgeting will become the most important criteria in monitoring the construction progress.

Some of the day-to-day engineer duties will include:

- Construction/document review
- Specification writing and review
- Plan review/shop drawing review: Finalize discrepancies with alternate resolution
- Research and establish temporary facility planning objectives
- Recording and retrieving information about key decisions concerning the project with dates and persons involved
- Assist in project control, risk management and quality control of onsite inspections
- Coordination and implementation of on-site activities
- Liaison with principal charge
- Periodic progress reports
- Coordination of sub-contractors
- Building code review
- Update cost estimates/calculations
- Assist in contract administration, site meetings, change orders, punch lists and managing changes from owners to sub-contractors
- Negotiate and establish contracts with sub-contractors

- Writing and editing letter correspondence, proposal preparation and letter of transmittals
- Establish/maintain and monitor daily-weekly-monthly schedules
- Assist in setting up control mechanism to monitor progress of job
- Assist in maintenance of:
 - Project records/files
 - Memoranda of meeting minutes and conferences
 - Memoranda of telephone conferences
 - Memoranda of data furnished by the Owner
 - Calculations and cost estimates of predictions for each phase of the project - - Proposed and actual delivery dates of drawings and specifications
 - Date of each approval by the Owner
 - Amounts of bids and sub-bids
 - Dates of filing and approval with building officials- Dates of submittal and Owners acceptance of surety and certificate of insurance
 - Dates and nature of submittals and special inspections
- Photograph construction process, before, during and after completion of construction

Such job duties will occur on a day-today, week-to-week and month-to-month basis as construction progress occurs. Each of the Functions will be directly linked to the project schedule. Many on-site duties will occur simultaneously while others may require handling higher priority issues as they arise.

The smoothness of the project will, in a large part, be determined by the discipline and communication established as a whole by the project team.

- a. Provide timely responses to request for change orders, price within 7 days
- b. Maintain contact with supervisors, owners, design professionals and subs
- c. Advise construction manager and VP-Operations of all departures from contract requirements and keep them apprised of status of all contracts
- d. Assist supervisors in acquiring resources
- e. Thoroughly document all activities as they occur
- f. Maintain contact with owner, design professionals, inspectors
- g. Initiate correspondence documenting all changes, change conditions, and to give periodic status reports of project
- h. Initiate billings in compliance with contract documents
- i. Record actual start and completion dates for all jobs, update CPM schedule weekly
- j. Review all job invoices for accuracy and compliance with agreements

3. Completion & Closeout:

- a. Arrange for all inspections
- b. Conduct punch list inspections and disseminate punch lists
- c. Initiate contract closeout procedures per contract specifications
- d. Compile operating manuals, warranties, etc.
- e. Obtain subcontractor lien releases and final billings
- f. File notice of completion upon notification from construction manager
- g. Cancel builders risk policy, additional insured
- h. Arrange relocation of resources for continuity of employment

Formal Authority:

1. Commit resources to execution of contracts and control of resources
2. Execute purchase orders per schedule of materials with notification to construction manager.

PROJECT ENGINEER/CHIEF ENGINEER_General

Description:

The Project Engineer assists the Construction Manager and the Vice-president of Operations in the administration and conduct projects and other aspects of the operations function, initiates the mobilization of all resources, schedules, communications, submittals, documents all activities relative to the conduct of the work, interface with project supervisors and other personnel, documents and initiate contract modifications, conducts inspection, review, and generally manages and monitors all administrative aspects of the projects as required through completion, contract closeout, and demobilization. The Chief Engineer shall, in addition to the above, oversee, train and review the performance of all project engineers and provide weekly update of manpower schedules.

Specific Responsibilities

1. Preconstruction:

- a. Arrange for all permits
- b. Compile and submit submittal status
- c. Compile and submit material status
- d. Assist in subcontract negotiating
- e. Assist in material orders, purchase order
- f. Assist in selection of supervisor and staffing
- g. Prepare construction schedule for review and approval
- h. Initiate project folder and appropriate files
- i. Disseminate schedule, notifications, etc.
- j. Complete all aspects of field and administrative checklists
- k. Make all arrangements with owners for start of construction

2. During Construction:

- a. Daily job visits and review of operational and administrative aspects of job
- b. Daily review of all statuses and schedule, updating as indicated

3. Purchase tools and equipment with approval of construction manager for tools in excess of \$100 and other controlled tools.
4. Change orders signed by construction manager
5. Personnel hires and terminations with approval of construction manager or VP-Operations

Relationship to other Positions:

1. Responsible to construction manager and VP-Operations
2. Position is parallel to supervisor position
3. Office-based trade personnel are responsible to senior coordinator
4. Field tradesmen are responsible to supervisors, supervisors responsible to construction manager

Qualifications for Position:

1. College degree in business, engineering, or equivalent
2. Construction experience and knowledge of operations
3. Exceptional communications and organizational skills

Growth Opportunities:

1. Experience in construction management and administration
2. Training in construction law, scheduling, and other technical aspects
3. Knowledge of construction technology
4. Training for other staff and project management positions

Future Positions:

1. Project manager
2. Estimating
3. Advanced administrative positions and branch management

PROJECT MANAGER'S ROLE

1. Prepare organization plan for project design and construction process
2. Prepare integrated master schedule of project activities leading to project completion
3. Resource Allocation: Direct, coordinate and manage project team through the design and construction process
4. Maintain project budget
5. Manage and represent owner's interest in all design and construction contracts (e.g.: architect, engineer, interior designer, kitchen, laundry, general contractor, landscape contractor, etc.)
6. Review all proposed changes to design and construction contracts
7. Coordinate all design and construction requirements with local agencies and permitting authorities
8. Maintain project administration/documentation files
9. Coordinate Project Teams: Coordinate hotel operator requirements with design and construction process.
10. Coordinate and work with consultants
11. Coordinate and work with outside agencies
12. Monitor and maintain client relations
13. Review and approve monthly construction billings and related direct and indirect project expenses for incorporation into the monthly construction loan draw
14. Ensure adherence to plans and specifications
15. Supervise preparation of final punch list and closing out of construction contract.
16. Work with sub-contractor on all phases of construction.

CHAIRPERSON JOB DESCRIPTION:

The Chairperson of the Board provides direction and control of the Board of Directors. He/She presides at all meetings of the shareholders and Directors and is an ex-official member of all the standing committees.

The Chairperson has full authority over matters of procedure (by using Roberts Rule of order) and there is no appeal from her/his ruling. He/She establishes such rules and regulations for the conduct of the meetings as he/she deems reasonable for the orderly and expeditious conduct of the meeting. He/She may:

1. Require that anyone not a bona fide member or proxy leave the meeting.
2. If disorder arises which materially interferes with transaction of the legitimate business of the meeting, the Chairperson may direct the adjournment of the meeting.
3. Call and emergency meeting.
4. Open the meetings at the time when the assembly meets, and call member to order.
5. Announce the business in the order in which it is best acted upon.
6. Recognize members entitled to the floor.
7. To state and put to vote all questions which are regularly moved and announced the result of the vote.
8. Give each Director an opportunity to speak to each order of business.
9. To protect the assembly from annoyance of unrelated business matters.
10. Authenticate by signature, when necessary, all orders and proceedings of the assembly.
11. In case of fire, riot or very serious disorder or other great emergency, the Chairperson has the right and duty to declare the assembly adjourned to some other time and place if necessary.
12. Write agenda for each meeting:
 - a. Accept agenda items from members no later than six (6) days before meeting and be sure each member has the written agenda at least two (2) days before the scheduled meeting.

- b. Write agenda.
- c. Be sure each member has the written minutes at least seven (7) days before scheduled meeting.

The Chairperson must be familiar with parliamentary usage and set the example of strict conformity thereto. He/She is to:

1. Be a person of executive ability, capable of controlling people.
2. Set an example of courtesy.
3. Should never forget that to control others, it is necessary to control ones' self. No rules will take the place of tact and common sense on the part of the Chairperson.
4. While in the chair, have beside you the By-Laws and Rules of Order which should be studied until perfectly familiar with them.
5. Memorize the list of ordinary notions arranged in the order., Page 7, of precedence and be able to refer to the Table of Rules, Page 8, quickly so that there will be no delay.
6. Read Sections 69-71 to become accustomed to the ordinary methods of conduction business in deliberative assemblies. Never be technical or stricter than is absolutely necessary for the good of the meeting.
7. Know all the business to come regularly before the meeting and call for it in its regular order.
8. Have with you a list of members of all committees to guide you in nominating new committees.
9. Never interrupt member while speaking.
10. Never get excited.
11. Never be unjust to the most troublesome member or take advantage of his/her ignorance of parliamentary laws.

OWNERS REPRESENTATIVE

**PROJECT MANAGER'S
JOB DESCRIPTION**

SUMMARY – SENIOR PROJECT MGR JOB DESCRIPTION

PRESENT

- Responsible Managing Employee (RME)
- Organizational skills
- Public Relations:
 - * Presentation to neighborhood boards
 - * Write correspondence
- Organizational Skills:
 - * Personnel — Employee Recruiting
 - * Policy and procedure writing
 - * Lead team meetings
 - * Record meetings minutes
 - * Letter/speech writing/master of ceremony
 - * Performance checklist
 - * Write Project checklists
 - * Review and write contracts on as needed basis
 - * Provide list of Professional Guideline for negotiation between Owner/NI&E/G.C.
 - * Safety management

- * Quality control issues
- * General research as needed

- Architectural:

* Perform drafting for basement structure as needed for:

- SMW wall layout
- Earth anchor tiebacks
- Traffic circulation

- Staff Meetings:

- * Maintain staff interaction
- * Suggestions/Recommendations

FUTURE:

- Maintain project documentation files — Daily reports
- Maintain budgets
- Maintain schedule
- Attend weekly meetings with principals in charge.
- Coordinate with consultants and subcontractors.
- Review:
 - * Change Orders
 - * Submittals
 - * Shop Drawings
 - * Payment Request

- Personnel Employee Recruiting

- Logistics and communication

systems

- * Track long lead material items

SUMMARY:

- Contract preparation

- Submittals and shop drawings

- Change order out of project scope

- Payment applications

- Schedules

- Insurance/Bond/and Contract negotiations are main interest and focus.

- Project closeout

Processing Applications for Payment

I Reviewing Contractors Progress Payments:

- a. Owner's rep. within seven (7) days after receipt of the contractors' application for payment shall:
 - (1) If correct, issue to the owner a certificate for payment.
 - (2) Or notify the contractor and owner in writing and list the architects or owners' reasons for withholding certification in whole or in part.
- b. After owners' rep. has issued a certificate for payment, the owner shall make payment according to the time and manner agreed upon for payment.

Payment Procedure
Based on AIA Document 201
Article 9

I Requirements Prior to Billing:

The sub-contractor shall submit a schedule of values to owner's rep. prior to the first application for payment. This schedule will be used as a basis for reviewing the contractors' progress payments.

II. Separate Contracts Upon Reaching Substantial Completion:

- a. When the contractor considers that the work or a portion thereof which the owner agrees to accept separately as substantially complete, the contractor shall prepare and submit to owners' rep. a comprehensive list of items to be completed or corrected. Owners and architect will make inspection to determine if the work or designated portion thereof is substantially complete.
- b. Warranties shall commence on the date of substantial completion of the work or designated portion thereof unless otherwise agreed upon in the certificate of substantial completion.

III. Retainage:

If the construction contract calls for a retainage, the owner can:

- a. Use this money to pay for labor or materials if the contractor fails to make these payments.
- b. Use this money to pay for the correction of work performed improperly.

FINAL PAYMENT PROCEDURE

Before issuing a final certificate for payment an architect should receive evidence that the contractor has paid for:

- a. All project costs
- b. Workmen's wages
- c. Building materials
- d. Rental of construction equipment

According to AIA Document 201, the general conditions require that, in order to receive final payment from the owner, the contractor must:

- a. Submit to the architect an affidavit that all payrolls, bills, etc. connected with the work have been paid.
- b. Obtain consent of surety to final payment.
- c. If required by the owner, submit other data establishing payment by furnishing receipts, releases and waivers of lien arising out of the contract.

If the construction contract calls for retainage, the owner can:

- a. Use this money to pay for labor or materials if the contractor fails to make these payments
- b. Use this money to pay for the correction of work performed improperly.

COST CODES

<u>COST CODE</u>	<u>DESCRIPTION</u>	<u>COST</u>
08.200	Wood & Plastic Doors & Frames	
08.400	Entrances & Storefronts	
08.505	Misc./Special Windows	
08.550	Wood Windows	
08.710	Door Hardware	
09.110	Metal Studding	
09.250	Gypsum Wallboard, Taping	
09.310	Ceramic Tile	
09.510	Acoustic Ceilings	
09.652	Vinyl/Resilient Flooring	
09.900	Painting	
10.260	Wall & Corner Guards	
10.400	Signage & Ident Devices	
10.520	Fire Extinguisher Cab. & Acc's	
10.800	Toilet & Bath Accessories	
11.455	Residential Appliances	
11.700	Medical Equipment (First Aid Cabinets)	
15.200	Fire Alarm System	
15.320	Fire Sprinkler System	
15.400	Plumbing	
15.700	HVAC	
16.050	Electrical Work	

COST CODES

<u>COST CODE</u>	<u>DESCRIPTION</u>	<u>COST</u>
01.025	Shop Burden	
01.103	Project Manager	
01.106	Superintendent	
01.118	General Labor	
01.124	Material Handling	
01.209	Liability Insurance	
01.212	Mobilization/Demobilization	
01.306	Safety Program	
01.403	Temp Utilities	
01.406	Telephone/Communication	
01.412	Temp Toilets	
01.415	Field Office/Supplies	
01.418	Project Sign	
01.510	Weekly Clean Up	
01.520	Dumpster/Trash	
01.605	Small Tools	
01.620	Scaffold	
01.640	Gas/Oil	
01.710	Blueprints	
01.905	Punch List	
01.910	Final Cleanup	
01.935	Notice of Completion	
03.100	Concrete Subcontracts	
05.505	Misc. Metal Fabrications	
07.100	Water Proofing	
07.200	Building Insulation	
07.800	Fire & Smoke Protection	
08.360	Overhead Doors	
09.110	Metal Studding	

COST CODES

<u>COST CODE</u>	<u>DESCRIPTION</u>	<u>COST</u>
09.140	Suspended Ceilings	
09.910	Exterior Painting	
09.920	Interior Painting	
10.430	Exterior Signage	
10.500	Lockers	
11.160	Loading Dock Equipment	
13.120	Pre-Engineered Structures	
13.121	Pre-Engineered Buildings	
13.900	Fire-Suppression	
15.500	HVAC	
16.100	Electric Utilities	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
01.000	GENERAL REQUIREMENTS				
01.010	Contractors Fee		01.315	First Aid Supplies	
01.025	Shop Burden		01.350	Trash	
01.028	Overhead		01.400	Temporary Facilities	
01.029	Profit		01.403	Temp Utilities	
01.030	Taxes		01.406	Telephone/Comm/Radios	
01.035	Bond Expenses		01.409	Water/Ice	
01.050	Pre-Construction		01.412	Temp Toilets	
01.051	Professional Services		01.415	Field Office/Supplies	
01.052	Engineering Services		01.418	Project Sign	
01.053	Landscape Architectural		01.421	Storage Facilities	
01.056	In-House Services		01.424	Temp Asphalt Paving	
01.060	Survey/Data		01.427	Temp Fence/Gate	
01.100	Project Labor		01.430	Temp Partition	
01.103	Project Manager		01.433	Barricades	
01.104	Project Manager/Manager				
01.106	Superintendent		01.500	Ongoing Expenses	
01.109	Project Engineer		01.503	Temporary Protection	
01.112	Foreman		01.505	Dumpsters/Trash Removal	
01.115	Estimating		01.510	Progress Cleanup	
01.118	General Labor		01.520	Dumpster/Trash	
01.121	Secretary		01.530	Inspections	
01.124	Material Handling				
01.140	Job Cleanup		01.575	Barricades	
01.200	Project Start		01.600	Tools & Equipment	
01.203	Building Permits		01.605	Small Tools	
01.206	Special Permits		01.610	Forklifts	
01.209	Liability Insurance		01.620	Scaffold	
01.212	Mob/Demob		01.625	Manlifts	
01.250	Misc. Testing		01.630	Hoists/Cranes	
01.260	Site Survey		01.635	Misc. Equipment	
01.268	Temporary Services		01.640	Gas/Oil	
01.300	Safety		01.645	Vehicles	
01.303	Safety Equipment		01.650	Freight/Trucking	
01.306	Safety Program		01.700	Project Docs	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
01.705	Photos/Video		02.072	Demo Plumbing	
01.710	Blueprints		02.073	Demo Saw cutting	
01.715	As-Builts		02.075	Coring & Drilling	
01.720	Warranty		02.100	Site Remediation	
01.725	Submittals		02.140	Dewatering	
01.730	Model/Mock-Ups		02.156	Underpinning & Site Stabiliz	
01.800	Travel Expenses		02.200	Site Prep	
01.805	Entertainment		02.215	Dust Control	
01.810	Travel		02.230	Clearing & Grubbing	
01.815	Car Rental		02.242	RipRap	
01.820	Lodging		02.300	Earthwork	
01.825	Per Diem		02.310	Site Grading	
01.900	Project Closeout		02.315	Structural Excavation	
01.905	Punch List		02.330	Embankment, Fill, Import	
01.910	Final Cleanup		02.360	Soil Treatment	
			02.370	Erosion Control	
01.920	Train Owners		02.400	Boring, Jacking, Foundation	
01.925	Operations		02.450	Pile Driving	
01.935	Notice of Completion		02.465	Drilled Piers & Piling	
01.940	Liquidated Damages		02.475	Caissons	
01.945	Warranty		02.500	Utility Services	
01.950	Permits/Fees		02.502	Utility Trenching	
02.000	Sitework		02.505	Thrust Blocks	
02.001	Misc. Site Work		02.506	Concrete Encasement-misc.	
02.005	Site Testing		02.510	Domestic Water Systems	
02.007	Dust Fence		02.515	Fire Line Water Systems	
02.010	Site Barricades & Protection		02.519	Chlorination Testing	
02.020	Subsurface Investigation		02.520	Water Well Systems	
02.050	General Demolition		02.530	Sanitary Sewer Systems	
02.052	Demolition Protection		02.540	Septic Systems	
02.055	Site Demo		02.550	Gas Lines	
02.060	Building Demo		02.600	Drainage	
02.065	Concrete Removal		02.620	Sub drainage Systems	
02.070	Selective Demolition		02.630	Storm Water Systems	
02.071	Demo Elect		02.640	Culverts site Drainage	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
02.645	Oil Sediment Tanks		03.125	Formwork Columns	
02.650	Oil/Water Separators		03.135	Formwork Walls	
02.700	Bases, Pavement		03.145	Formwork Suspended Slab	
02.710	Granular Paving		03.170	Formwork Walls Stairs & Landing	
02.720	Base Courses		03.200	Reinforced Steel (General)	
02.740	Asphaltic Concrete Paving		03.250	Concrete Accessories	
02.750	Concrete Paving		03.350	Concrete Finishes	
02.760	Pavement Specialties		03.400	Precast Concrete Planks	
02.765	Pavement Striping		03.405	Precast Walls / Columns	
02.770	Curb & Gutter		03.735	Concrete Patching	
02.780	Unit Pavers		04.000	Masonry	
02.800	Site Improvements		04.005	Masonry Testing	
02.810	Hardscape		04.100	General Masonry	
02.815	Fountains		04.150	Masonry Reinforcing & Ties	
02.820	Fences & Gates		04.210	Brick Masonry	
02.830	Retaining Walls		04.220	Concrete Masonry Units	
02.835	Retaining Walls-Masonry		04.270	Glass Block	
02.836	Retaining Walls CMU		04.280	Masonry Paving	
02.840	Road & Parking Lot		04.400	Arch. Stonework	
02.842	Bollards		04.410	Masonry Counters	
02.845	Parking Bumpers		04.450	Marble	
02.850	Electrical & Comm Utilities		04.475	Slate	
02.870	Site/Street		04.700	Simulated Masonry	
02.875	Recreational Site		04.800	Scaffolding at Masonry	
02.880	Power & Communications		04.850	Ext Natural Stone Wall Facing	
02.890	Traffic Signs & Signals		04.900	Masonry Restoration & Cleaning	
02.900	Landscaping		05.000	Metals	
02.910	Irrigation Systems		05.005	Steel / Metal Testing	
02.950	Site Rehab & Restore		05.010	Misc. Metals	
03.000	Concrete		05.050	Metals-General	
03.001	Concrete Subcontract		05.100	Structural Framing	
03.005	Concrete Testing		05.115	Structural Steel Work	
03.010	Concrete Materials		05.140	Aluminum	
03.100	Formwork General		05.200	Metal Joists	
03.105	Formwork S.O.G. (Slab on Grade)		05.300	Metal Deck	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
05.410	Metal Wall Framing		06.200	Finish Carpentry	
05.420	Metal Floor Framing		06.220	Standard Pattern Wood Trim	
05.425	Metal Roof Framing		06.230	Carpentry Spec/Shelving	
05.440	Pre-Engineered Metal Trusses		06.250	Wood Paneling, Interior	
05.500	Metal Fabrications		06.260	Finish Wood Board Paneling	
05.505	Misc. Metal Fabrications		06.270	Closet & Shelving	
05.510	Metal Stairs & Ladders		06.400	Arch Woodwork	
05.520	Handrails/Railings		06.410	Cabinets/Built in Place	
05.530	Gratings/Floor Plates		06.415	Countertops	
05.550	Stair Treads & Nosings		06.420	Custom Wood Paneling	
05.700	Ornamental Metal		06.430	Stairs & Handrails	
05.710	Ornamental Stair		06.440	Wood Ornaments	
05.715	Misc. Ornamental Metals		06.455	Wood Trim	
05.720	Ornamental Handrails/Railings		06.460	Wood Frames-Specialty	
05.735	Ornamental Metal Fences & Gate		06.470	Woods, Blinds, Shutters	
05.800	Expansion Control		06.600	FRAP (Fiberglass Reinforced Plastic for Walls & Wainscot)	
05.900	Metal Restore & Clean				
06.000	Carpentry		06.720	Exterior Trim	
06.010	Lumber		06.740	Exterior Siding	
06.050	Fasteners & Adhesives		07.000	Thermal and Moisture	
06.060	Framing Connectors & Hardware		07.100	Water & Damp proof	
06.070	Wood Treatment		07.110	Damp proofing	
06.100	Rough Carpentry		07.120	Bituminous Waterproofing	
06.110	Backing & Blocking		07.180	Traffic Coating/Walkways	
06.120	Wall Framing		07.200	Building Insulation	
06.130	Floor Framing		07.210	Thermal Insulation	
06.140	Roof & Ceiling Framing		07.215	Spray-On Insulation	
06.150	Stair Framing		07.220	Rigid Insulation	
06.155	Misc. Framing		07.240	EI FS (EXT. Insulation Finishing Systems)	
06.160	Wood Sheeting				
06.165	Post, Beam, Timber Const.		07.260	Vapor Barriers	
06.170	Plywood Sheeting		07.270	Air Barriers	
06.175	Decking		07.300	Roofing	
06.180	Glu-Lam Beams		07.310	Shingles	
06.190	Wood Trusses		07.320	Roof Tiles	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	CODE	DESCRIPTION	COST
07.400	Roofing, Siding & Panels		08.300	Specialty Doors	
07.410	Metal Roofing		08.305	Fire Doors	
07.440	Faced Wall Panels		08.307	Access Doors	
07.460	Siding		08.310	Misc. Special Doors	
07.465	Metal Siding		08.315	Mirrored Doors	
07.500	Membrane Roofing		08.350	Coiling Door & Grilles	
07.510	Built-Up Roofing		08.360	Overhead Doors	
07.530	Elastomeric Roofing		08.370	Vertical Lift Doors	
07.560	Fluid-Applied Roofing		08.400	Entrances & Storefronts	
07.590	Roof Maintenance & Repairs		08.410	Aluminum Storefronts & Entry	
07.600	Flashing & Sheet Metal		08.415	Door & Window Access	
07.610	Sheet Metal Roofing		08.460	Automatic Entrance Doors	
07.620	Sheetmetal Flashing & Trim		08.470	Revolving Doors	
07.700	Roofing Specialties		08.500	Windows	
07.720	Roof Accessories & Vents		08.505	Misc./Special Windows	
07.722	Roof Hatches		08.510	Steel Windows	
07.724	Roof Walkways		08.520	Aluminum Windows	
07.725	Roof Curbs		08.525	Jalousies	
07.727	Roof Vents		08.550	Wood Windows	
07.800	Fire & Smoke Protection		08.560	Vinyl & Plastic Windows	
07.810	Applied & Board Fireproofing		08.600	Skylights	
07.840	Firestopping		08.700	Finish Hardware	
07.860	Smoke Seals and Barriers		08.705	Genl. Finish Hardware	
07.900	Joint Sealers		08.710	Door Hardware	
07.910	Gaskets		08.800	Glazing	
07.920	Caulking & Sealants		08.810	Genl. Glazing Work	
08.000	Doors, Windows and Glass		08.820	Fire Glazing	
08.100	Metal Doors & Frames		08.900	Glazed Curtain Wall	
08.110	Hollow Metal Frames		08.990	Door/Window Restoration	
08.115	Hollow Metal Doors		09.000	Finishes	
08.120	Misc. Metal Doors & Frames		09.010	Protection of Finishes	
08.200	Wood & Plastic Doors & Frames		09.110	Metal Studding	
08.210	Wood & Plastic Door Frames		09.140	Suspended Ceilings	
08.250	Pre-Assembled Doors		09.200	Plaster	
08.260	Sliding Wood & Plastic Doors		09.205	Lathing/Furring	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
09.215	Imperial Plaster		10.160	Toilet Partitions & Screens	
09.220	Cement Plaster		10.185	Dressing Compartments	
09.235	Plaster Molding & Ornaments		10.200	Louvers & Vents	
09.250	Gypsum Wallboard, Taping		10.225	Door Louvers	
09.260	Gyp Board Assemblies		10.230	Soffit & Wall Vents	
09.300	Tile		10.240	Grilles & Screens	
09.305	Tile Setting Durock-Cement BD for Showers		10.260	Wall & Corner Guards	
09.310	Ceramic Tile		10.270	Access Flooring	
09.380	Natural Stone Tile		10.300	Fireplace Specialties	
09.400	Terrazzo		10.340	Exterior Specialties	
09.500	Ceilings		10.350	Flag Poles & Footings	
09.510	Acoustic Ceilings		10.400	Signage & ADA Devices	
09.600	Flooring		10.410	Directories	
09.615	Marble Flooring		10.430	Exterior Signage	
09.620	Granite Flooring		10.440	Interior Signage	
09.625	Slate Flooring		10.450	Pedestrian Control Devices	
09.640	Wood Flooring		10.500	Lockers	
09.652	Sheet Vinyl Resilient		10.520	Fire Extinguisher Cabs & Accessories	
09.655	VCT (Vinyl Composition Tile)		10.530	Awnings & Canopies	
09.678	Resilient Accessories (Base)		10.550	Mailboxes & Postal Specialties	
09.680	Carpet		10.600	Partitions	
09.682	Carpet-Stretch & Pad		10.633	Hospital Cubicles, Partitions	
09.684	Carpet-Glue-Down		10.650	Moveable Portions	
09.686	Carpet Tile		10.655	Accordion Partitions	
09.700	Wall Finishes		10.675	Storage & Shelving	
09.720	Wall Coverings		10.750	Telephone Specialties	
09.750	Interior Stone Wall Veneer		10.800	Toilet & Bath Accessories	
09.900	Painting		10.820	Bath Accessories	
09.910	Exterior Painting		10.825	Tub & Shower Enclosures	
09.920	Interior Painting		10.830	Laundry Accessories	
09.950	Wall Coverings		10.900	Wardrobe & Closet Specialties	
09.970	Wallcovering		11.000	Equipment	
10.000	Specialties		11.010	Maintenance Equipment	
10.050	Building Specialties Misc.		11.013	Vacuum Equipment	
10.110	Visual Display Boards		11.060	Theater Equipment	
10.120	Metal Louvers		11.160	Loading Dock Equipment	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
11.170	Waste Handling Equip		13.090	Radiation Protection	
11.200	Water Treatment Equipment		13.120	Pre-Engineered Structures	
11.400	Food Service Equipment		13.121	Pre-Engineered Buildings	
11.405	Kitchen Appliances		13.150	Swimming Pools	
11.410	Stainless Steel Fabrications		13.155	Water Features	
11.425	Kitchen Hood & Ventilation Sys		13.170	Tubs & Pools	
11.427	Kitchen Fire Protection		13.200	Storage Tanks	
11.450	Residential Kitchen Equipment		13.205	Gas Pumps & Tanks	
11.452	Residential Exhaust		13.210	Oil Tank-Storage	
11.455	Residential Appliances		13.600	Solar Energy Systems	
11.457	Retractable Stairs		13.650	Photo-Voltaic Systems	
11.460	Unit Kitchens		13.700	Security Access & Surveillance	
11.480	Athletic Equipment		13.800	Building Automation & Control	
11.500	Industrial Process Equipment		13.850	Detection & Alarm Systems	
11.600	Lab Equipment		13.900	Fire Suppression	
11.680	Office Equipment		14.000	Conveying Systems	
11.700	Medical Equipment		14.100	Dumbwaiters	
11.730	Patient Care Equipment		14.200	Elevators	
12.000	Furnishings		14.300	Escalators	
12.300	Manufactured Casework		14.400	Lifts	
12.310	Metal Casework		14.450	Auto/Truck Lifts	
12.320	Wood Casework		14.500	Material Handling	
12.325	Plastic Laminated Casework		14.550	Conveyors	
12.345	Lab Casework		14.560	Chutes	
12.350	Display Casework		14.600	Hoists & Cranes	
12.360	Medical Casework		14.800	Scaffolding	
12.400	Furnishings & Accessories		15.000	Mechanical Work	
12.490	Window Treatments		15.010	Chlorination Tests	
12.500	Furniture		15.080	Insulation, Piping	
12.600	Multiple Seating		15.100	Pipes, Valves, Fittings	
12.800	Interior Plants & Planters		15.190	Fuel Piping & Accessories	
13.000	Special Construction		15.210	Compressed Air Systems	
13.010	Misc. Special Construction		15.215	Medical Gas Systems	
13.030	Special Purpose Room / Safe Room		15.300	Fire Sprinkler Piping	
13.039	Vaults		15.320	Fire Sprinklers	
13.040	Saunas & Steam Baths		15.400	Plumbing	

STANDARD COST CODE LIST

COST CODE	DESCRIPTION	COST	COST CODE	DESCRIPTION	COST
15.410	Plumbing Fixtures		16.505	Lighting Fixtures	
15.600	Refrigeration		16.520	Exterior Luminaires	
15.700	HVAC		16.530	Exit Lighting	
15.800	Air Distribution		16.570	Dimming Control	
15.830	Exhaust Fans		16.700	Communication Systems	
15.900	Instrumentation & Controls		16.720	Call Systems	
15.915	Control Wiring		16.725	Nurse Call Systems	
15.950	Test & Balancing		16.740	Data Systems	
16.000	Electrical Work		16.780	Signal Devices	
16.005	Electrical Testing		16.800	Sound & Video	
16.050	Electrical Work		16.817	Communication Systems	
16.100	Electric Utilities		16.840	Video Cameras & Equipment	
16.110	Electric Site work		16.850	T.V. Systems	
16.120	Power line Encasement		16.900	Miscellaneous	
16.400	Low Voltage Systems		17.000	Changes	
16.410	Transformers				
16.500	Lighting				

SAMPLE

DATE:

PROJECT:

JOB SITE NAME & ADDRESS

POINT OF CONTACT: John Smith

PHONE #

SQ. FT: XX,XXX

ABC REMODELING COMPANY

PRELIMINARY SCHEDULE OF VALUES

ADDRESS:

CITY AND STATE:

CODE	DESCRIPTION	COST	REMARKS / COMMENTS
1000	GENERAL CONDITIONS	\$0	PM, layout, protection
1140	SITE COORDINATION-PM	\$0	Superintendent
1561	CLEAN UP	\$0	30 Yard roll-off dumpster bin
2050	SITWORK (including demo and hauling)	\$0	Remove walls, cabinets, glass
3000	CONCRETE	\$0	Ready-Mix Concrete
6200	ONSITE LABOR AND MATERIAL	\$0	Labor and Material
6400	CASEWORK	\$0	Buy stock items from Home Depo
6600	SPECIALTY SURFACES	\$0	Granite Countertops
8100	DOORS FRAMES AND HARDWARE	\$0	Buy stock from Lowes
8800	WINDOWS & GLAZING	\$0	Home Depot Special Order Desk
9250	DRYWALL AND ACOUSTIC CEILINGS	\$0	Buy stock items
9600	CERAMIC TILE	\$0	Dal-Tile, buy off floor
9700	SPECIALY FLOORING / CARPET	\$0	Allowance \$5.50 sf labor & material
9900	PAINTING	\$0	New paint, not existing areas
9905	SPECIALTY PAINTING	\$0	Bid out to 3 painters
9950	WALL INSULATION	\$0	Allowance for insulated walls

12500	WINDOW TREATMENT	\$0	Measure, buy window blinds
15300	FIRE SPRINKLER	\$0	Match existing
15500	AIR CONDITIONING	\$0	NIC air balancing
16000	ELECTRIC	\$0	De-energize electric & re-build to plan
16500	LIGHTING	\$0	Reuse existing light fixtures

SUBTOTAL \$0

OVERHEAD 6% \$0

FEE 10% \$0

TAX 8.125% \$0

SUBTOTAL \$0

BOND \$0

CONTINGENCY \$0

TOTAL \$0

EXCLUSIONS

Repair/Replacement or servicing of existing HVAC System

After hours, holiday & night work excluded

Telecommunications wiring or related work

Hazardous materials removal or abatement

Assumes parking provided by owner

A&E fees, permits or associated fees

Moving / Storage of tenant items

Additional circuits

New VAV or stats

Air Balancing

Fire Alarm

Signage

Conditional - Unconditional Waiver - Release Forms

CLICK:

<http://www.cslb.ca.gov/consumers/legalissuesforconsumers/mechanicslien/conditionalandunconditionalwaiverreleaseform.asp>>

General Principles: No lien release is binding unless the claimant executes (signs) and delivers a waiver and release. If signed by the claimant or his or her authorized agent, the signed form is effective to release:

- The owner;
- The construction lender; and
- The surety (in the case of a payment bond).

Be careful: Paying your contractor (and/or getting a release from your contractor) does not guarantee that other claimants, like subcontractors and suppliers, are paid. A claimant is a person who, if not paid, can file a lien on your home.

To be effective, the waiver and release forms must follow substantially one of the forms set forth in [Civil Code Section 3267](#). The four forms are:

- **Conditional Waiver and Release Upon Progress Payment**^[SEP] Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce the payment of a progress payment and the claimant has not been paid. This form is useful when the claimant has not been paid yet but will be paid out of a progress payment that is not the final payment. This conditional waiver and release are only effective if the claimant is *actually paid*. This release does not cover all items. See the "[Conditional Waiver And Release Upon Progress Payment](#)" form for more information.

- **Unconditional Waiver and Release Upon Progress Payment**^[SEP] Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce payment of a progress payment and the claimant asserts in the waiver that he or she has in fact been paid the progress payment. This release does not cover all items. See the "[Unconditional Waiver And Release Upon Progress Payment](#)" form for more information.
- **Conditional Waiver and Release Upon Final Payment**^[SEP] Use this form when the claimant is required to execute a waiver and release in exchange for or in order to induce the payment of a final payment and the claimant has not been paid. This release is only binding if there is evidence of payment to the claimant. Evidence of payment may be demonstrated by:
 - The claimant's endorsement on a single check or a joint payee check which has been paid by the bank upon which it was drawn; or
 - Written acknowledgment of payment given by the claimant.
 - See the "[Conditional Waiver and Release Upon Final Payment](#)" form for more information.
- **Unconditional Waiver and Release Upon Final Payment**^[SEP] Use this form when the claimant is required to execute a waiver and release in exchange for, or in order to induce payment of, a final payment *and* the claimant asserts in the waiver he or she has in fact been paid the final payment. See the "[Unconditional Waiver and Release Upon Final Payment](#)" form for more information.

Caution: In the case of a conditional release, the release is only binding if there is evidence of payment to the claimant. Evidence of payment may be demonstrated by:

- The claimant's endorsement on a single check or a joint payee check which has been paid by the bank upon which it was drawn; or
- Written acknowledgment of payment given by the claimant.

**RELEASE AND WAIVER BY SUB-CONTRACTOR
OF MECHANIC'S LIENS AND CLAIMS**

("Sub-Contractor")

NAME:

ADDRESS:

CITY AND STATE:

PHONE NUMBER:

("Owner-Prime Contractor")

NAME:

ADDRESS:

CITY AND STATE

PROJECT ADDRESS: _____

FINAL PAYMENT

In consideration of the payment in full by _____ to the undersigned Sub-contractor of all payments due and payable to the Sub-contractor for labor, materials, equipment or supplies furnished by the Sub-contractor in the aggregate amount of

\$ _____ in the improvements described above (the "Improvements"), the Sub-contractor does hereby release and waive all liens and claims which the Sub-contractor now has, or may hereafter have, for furnishing such labor, materials, equipment or supplies up through and including the date hereof. Such liens and claims shall include, but shall not be limited to, (1) any mechanic's or materialman's liens against the leasehold or fee simple title in and to the Improvements or the real property upon which the Improvements are located, (2) any right to assert or claim any such mechanic's or materialman's liens, and (3) any equitable liens. This release and waiver are for the benefit of and may be relied upon by _____ and its successors and assigns.

For the foregoing consideration, the Contractor further warrants and represents that the Sub-contractor has fully and duly paid for all labor, materials, equipment and supplies used or furnished by the Contractor in connection with the Job, and hereby covenants and agrees to indemnify _____ from and against any and all loss, liability or expenses (including reasonable attorneys' fees) which may be sustained or incurred for any failure of the Contractor to make such payments.

DATE: CITY AND STATE this _____ day of _____, 20XX.

SIGNED BY: _____

NAME & TITLE: _____

STATE OF (_____)

COUNTY OF (_____)

On this XXth day of _____, 20XX, before me personally appeared _____, to me personally known, who, being by me duly sworn or affirmed, did say that such person executed the foregoing instrument as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.

Notary Public, in and for said County and State

My Commission Expires: _____

Doc. Date: _____ # Pages: ____2____

Doc. Description:

FINAL RELEASE & WAIVER BY SUB-CONTRACTOR FOR MECHANIC'S LIENS AND CLAIMS

Notary Signature

Date

NOTARY CERTIFICATION

CONDITIONAL WAIVER AND RELEASE
UPON FINAL PAYMENT

Upon receipt by the undersigned of a check from
COMPANY NAME, a Texas Corporation in the sum of \$ ____
Payable to _____ and when the
check has been properly endorsed and has been paid by the
bank upon which it is drawn, this document shall become
effective to release any mechanic's lien, stop notice, or bond
right the
undersigned has on the job of _____
_____ at _____

This release covers the final payment to the undersigned for all
labor, services, equipment or material furnished on the job,
except for disputed claims for additional work in the amount of
\$ _____. Before any recipient of this document
relies on it, the party should verify evidence of payment to the
undersigned.

Dated: _____

(Company Name)

By: _____

PROJECT NAME
PROJECT ADDRESS
City and State
Phone / e-mail

Date: _____

Attn: Mr. _____

Address: _____

City/State: _____

RE: Project Name
RELEASE OF FINAL PAYMENT, INCLUDING RETENTION

Dear _____

In order for your final payment, including retention, to be released, we need to receive from you the following two (2) items:

1. A final invoice with a statement that "Payment of the amount shown on this invoice constitutes final payment, including retention, for all work performed at the Park Place Project".
2. A completed "Conditional Waiver and Release Upon Final Payment". A copy of this form is attached for you use. According to our records, you have been paid your entire subcontract sum except for your retention payment of _____ . This amount should be filled in the blank on the second line of the form. Since you have no disputed claims, \$0.00 should be filled in the blank on the second line from the bottom of the form.

Once we receive these items from you, your final payment, including retention, will be released.

Very truly yours,
JG Geis — Owner's Rep.

CHARLESTOWN BUILDERS, LTD. **SAMPLE**

Attn: _____

ABC International, Ltd.
ADDRESS
CITY AND STATE

RE: PARKSIDE TOWER-RELEASE OF FINAL PAYMENT, INCLUDING RETENTION

Dear Mr. Smith:

In order for your final payment, including retention, to be released, we need to receive from you the following two (2) items:

1. A final invoice with a statement. that "Payment of the amount shown on this invoice constitutes final payment, including retention, for all work performed at the Parkside Tower project".
2. A completed "Conditional Waiver and Release upon Final Payment". A copy of this form is attached for your use. According to our records, you have been paid your entire subcontract sum except for your retention payment of \$5,841.10. This amount should be filled in the blank on the second line of the form. Since you have no disputed claims, \$0.00 should be filled in the blank on the second line from the bottom of the form.

Once we receive these items from you, your final payment, including retention, will be released.

Very truly yours,

Ken Barbee

JG/RA
Attachments



INTERNATIONAL CORP.
GENERAL CONTRACTOR
ADDRESS
CITY AND STATE
PHONE NUMBER

SAMPLE

12-20-20

ACCOUNTING OFFICE

ADDRESS

CITY AND STATE

Project: Warehouse

SUBCONTRACTOR BILL PAY No: 1

Period From: 6/01/2020 To:

7/31/2020

General Conditions		\$00.00
Time & Labor		\$00.00
Materials & Supplies		\$00.00
Subcontractors	\$000,000.00	
Insurance		\$00.00
Overhead & Fee		\$00.00
G.E. Tax		\$00.00

Sub Total Amount		\$00,00
Amount Paid to Date	\$00,000.00	
Total Amount	<u>\$00,000.00</u>	

Projected Cost to 7/XX/2013

General Conditions		\$00.00
Time/Labor		\$00.00
Materials & Supplies		\$00.00
Subcontractors		\$00.00
Insurance		\$00.00
Overhead & Fee		\$00.00
G.E. Tax		\$00.00
Projected Total		<u>\$00.00</u>

NET DRAW		<u>\$000.0</u>
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Sincerely,

JG Geis-Owner's Rep

GENERAL CONTRACTOR **SAMPLE**
ADDRESS
CITY AND STATE
PHONE
E-MAIL ADDRESS

10-28-XXXX

Name

Address;

City and State

Project: _____

SUBCONTRACTOR BILL PAY No: 1
Period From: 10/00/0000 To:
10/00/00

PAYMENT SCHEDULE OF VALUES:

Total Contract Amount = \$39,520.00

- | | |
|---|--------------|
| 1. Payment #1 After digging pond: | = \$19,760. |
| 2. Payment #2: After Pouring Concrete Channel & Finish Grading to Pond: | = \$15,808. |
| 3. Payment #3: Final Payment-RETAINAGE 10% | = \$3,952.00 |

ESTIMATED CONTRACT TOTAL = \$39,520.00

NET DRAW #1: = \$19,760

EXTRA WORK:

- Spread 100 truckloads of dirt from pond to level out low spots in field = \$1,500

Sincerely,

Check List Before Paying

Project Name:

Project Address:

Manager: JG Geis-Owner's Rep

- Lien Releases
- Executed Contract
- Insurance Certificate
- Project Close-Out Documents
- SDS

Contract Close Out

- I. Neither final payment of retained earnings shall become due until the contractor submits to owner or architect:
 - a. An affidavit that payrolls, bills for materials, equipment and other indebtedness connected with the projects work has been paid.
 - b. A certificate evidencing that insurance to remain in force after final payment is currently in effect and will not be cancelled or allowed to expire until at least thirty (30) days prior written notice has been given to owner.
 - c. A written statement that the contractor knows of no substantial reason that the insurance will not be renewable to cover the period required under the contract.
 - d. Obtain consent of surety to final payment.
 - e. If required by owner, submit other data establishing payment by furnishing receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the contract.

If a subcontractor refuses to furnish a release or waiver required by the owner, the contractor may furnish a performance bond satisfactory to the owner to indemnify the owner against such lien.

PROJECT CLOSE OUT CHECK LIST

The following checklists are prepared to assist in planning the tasks necessary through project completion. By identifying the following you will be able to:

- Know what the job ahead entails.
- Identify the tasks and define the sequence of events.
- Reduce uncertainty.
- Monitor project close-out progress.
- Assist project team members with little or no experience in closing out a project
- Inform other team members about the activities of others during the close out phase.

These are presented as a starting point for each department to develop its own checklist that will satisfy its particular needs and requirements.

USING THE CHECK LIST

ITEM:	Each task listed is identified by a specific Number and grouped into categories. Categories are based on functions, not on organizations or equipment.
TASK DESCRIPTION:	Task Descriptions are brief. Task that could apply to more than one category are listed only in the most appropriate category.
REQUIRES, YES OR NO:	Does the item apply to the project?
PRIORITY:	The project manager may establish a priority system; priority 1 may be all tasks that must be accomplished before the contractual completion date of the contract. Priority 2 may be the tasks accomplished two weeks after the completion date, Priority 3 may be tasks projected for completion prior to delivery & storage of contract documents, etc.
NOTES:	Refers to applicable procedures, to reach project closeout.

CLOSE OUT

INDEX

1. Project Office (PO) Project Team (PT) Organization
2. Instructions and Procedures
3. Financial
4. Project Definition
5. Plans, Budgets, and Schedules
6. Work Authorization and Control
7. Project Evaluation and Control
8. Management and Customer Reporting
9. Marketing and Contract Administration
10. Extensions — New Business
11. Project Records Control
12. Purchasing & Subcontracting Liaison and Policies
13. Engineering Documentation
14. Site Operations

ITEM	TASK DESCRIPTION	REQUIRED		DUE DATE	PERSON ASSIGNED	PR.	NOTES
		YES	NO				
8. MANAGEMENT AND CUSTOMER REPORTING							
8.1.	Submit final report to customer						
8.2.	Submit final report to management						
9. MARKETING AND CONTRACT ADMINISTRATION							
9.1.	Compile all final contract documents with revision, Waivers and related correspondence						
9.2.	Verify and document compliance with all contractual terms						
9.3.	Compile required proof of shipment and customer acceptance documents						
9.4.	Officially notify customer of contract completion						
9.5.	Initiate and pursue any claims against customer						
9.6.	Prepare and conduct defense against claims by customer						
9.7.	Initiate public relations announcements & press releases						
9.8.	Prepare final contract status report						
9.9.	Contract completion						
10. EXTENSIONS - NEW BUSINESS							
10.1.	Document possibilities for project or contract extensions, or other related new business						
10.2.	Obtain commitment for extension						
11. PROJECT RECORDS CONTROL							
11.1.	Complete project file and transmit to designated manager						
11.2.	Dispose of other project records as required by established procedures						
12. PURCHASING AND SUBCONTRACTING							
For each Purchase Order and Subcontract:							
12.1.	Document compliance and completion						
12.2.	Verify final payment and proper accounting to project						
12.3.	Notify vendor/contractor of final completion						
13. ENGINEERING DOCUMENTATION							
13.1.	Compile and store all engineering documentation						
13.2.	Prepare final technical report						
14. SITE OPERATIONS							
14.1.	Close down site operations						
14.2.	Dispose of equipment and material						

For further clarification, please refer to:

1. Archibald, Russell., Managing High — Technology Programs And Projects, A Wiley — Interscience Publication, New York, 1976.
2. Chairman Poirot, James., Quality In The Construction Project, American Society of Civil engineers, New York, 1988.
3. Harrison, F.L., Advanced Project Management, Gower Publishing Company limited, England, 1987.

FINAL PUNCH LIST

Date: _____ Time: _____

Location / Project: _____ Page _____ of _____

ACCEPTANCE:

I hereby declare that, in the company of a representative JG Geis-Consultant (the "Contractor"), I inspected the work performed at the project location referenced herein; and as a result of such inspection I hereby accept the work, except for those exceptions specifically noted below.

CLIENT SIGNATURE _____ DATE _____

 JG Geis-Manager _____ DATE _____

Item No.	Location	Exception	Suggested Repair By	Completed

**CERTIFICATE OF
SUBSTANTIAL COMPLETION**

OWNER
CONTRACTOR
ARCHITECT

PROJECT:
(Name and address)

PROJECT NO.:

TO OWNER:
(Name and address)

CONTRACT FOR:
CONTRACT DATE:

TO CONTRACTOR:
(Name and address)

DATE OF ISSUANCE:
PROJECT OR DESIGNATED PORTION SHALL INCLUDE:

The Work performed under this Contract has been reviewed and found to the Owner's best knowledge, information and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion thereof designated above is hereby established as

which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

ARCHITECT _____ BY _____ DATE _____

The Contractor will complete or correct the Work on the list of items attached hereto within 15 working days of the above date of Substantial Completion.

CONTRACTOR _____ BY JG Geis-Owner's Rep _____ DATE _____

The Owner accepts the Work or designated portion thereof as substantially complete and will assume full possession thereof at _____ p.m. (time) on Tuesday, October 23, 2012.

OWNER _____ BY _____ DATE _____

The responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance shall be as follows: Contractor to coordinate with the Owner for the repair of all items on the established punch list.
(Note: Owner's and Contractor's legal and insurance counsel should determine and review insurance requirements and coverage.)

UNDER CONSTRUCTION

HARD HAT AND SAFTEY GLASSES
REQUIRED

DO NOT ENTER

CONSTRUCTION ENTRY

3 1 3 9

TRANSMITTAL

DATE:

TO:

FROM: JG Geis-Construction Manager

RE:

Sincerely,

JG Geis - Manager

WITH COVER SHEET, THIS TRANSMITTAL INCLUDES _____ SHEET(S)

OAC MEETING AGENDA _____ DATE: _____

- 1) REVIEW PREVIOUS MEETING MINUTES
- 2) CONSTRUCTION PROGRESS: 3-WEEK SCHEDULE
- 3) SCHEDULE REVIEW AND ADJUSTMENT: MASTER SCHEDULE
- 4) CONTRACT CHANGES: REVIEW RFP/CP/CO LOGS
- 5) CLARIFICATION ISSUES: REVIEW RFI/ASI LOGS
- 6) SHOP DRAWINGS / SUBMITTALS: REVIEW OF SUBMITTAL LOG
- 7) FIELD OBSERVATIONS
- 8) NEW BUSINESS
- 9) ACTION ITEMS: REVIEW ACTION LOG

PROJECT NAME
MANAGERS NAME
ADDRESS OF JOB SITE
CITY AND STATE

Telephone
E-mail Address

October 15, 2020

REGRET LETTER

DOUG SMITH-General Manager
Material and Trucking Company
Jonestown Street
Jonestown VA 78733

Re: Retention Pond

Hi Doug:

We regret to inform you that your firm was not selected by the Owner to excavate the expansion of the nursing home retention pond.

Your time and effort in preparing a proposal for this work is very much appreciated.

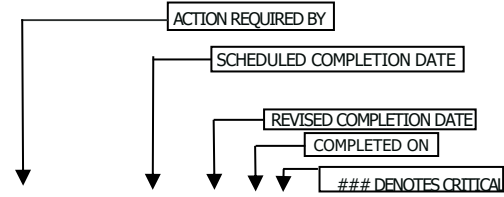
We look forward to the opportunity to work with you on a future project.

Yours truly,

JG Geis-Construction Manager

PROJECT NAME: SAMPLE

ACTION LOG DATE:



ITEM	INITIATION DATE	DESCRIPTION	ACTION REQUIRED BY	SCHEDULED COMPLETION DATE	REVISED COMPLETION DATE	COMPLETED ON	### DENOTES CRITICAL
19	9/24	THIS IS TICKLER FOR FOLLOW-UP FROM OAC MEETINGS	JG				
18							
17	10/17	Fire Engineer recommends changing to BLUE Latex Paint. Solves flammability	Ed				Owners Rep to follow up.
16	10/17	issues. Fire Engineer to call for Flow Test thru City of	Ed				Two Weeks
15	10/10	Houston.	JG	10/10	X		JG to contact
14	10/10	GC 281-467-2460 cell: Ref: Stephen Schneider 713-858-1048 cell Hired Ed	Info Only	X	X	X	Provide MSDS Sheets for Thursday 10am Warehouse Mtg.
13	10/8	Cope-Engineer to Design High Pile Storage Rack Layout	Info Only	X	X	X	Info Purposes Only
12	10/8	NO WINDSTORM DESIGN LOADS FOR CITY OF HOUSTON.	Civil	10/29	X	###	Info Purposes Only
11	10/8	Wind Design Loads: Coastal Design Loads = 130 MPH; Houston = 110 MPH	Hazael/	10/29	X		Prasad - Letter to be used for Large Const. Proj #
10	10/8	Storm Letter & Letter of Intent using for Gas Line: Using existing gas meter located at job	Hazel	10/29	X	X	Design Team follow up
9	10/8	Show dashed lines to new locations. Sleeves: 4 sleeves-Electrical Four (4") to (6")	Stephen	10/29	X	X	Design Team follow up
8	10/8	sleeves. Size to be determined.	Madhavi	10/29	X	###	Design Team follow up
7	10/8	Sleeves: 3 sleeves/phone/data/spare under Slab-Driveways. Note on Site Plan for Bidding.	Wayne	10/29	X	###	Design Team to hire Consultant
6	10/1	Hire ADA Specialist: Obtain TDLR# for approved drawings prior to COH Submittals.	JG	10/29		###	Wayne to perform soils report by 10/30
5	10/1	Select Fill Required Under Slabs: To be determined. (Possibly 12", 15", 18")	JG				Wayne to perform soils report by 10/30
4	9/24	Soil Density Testing: How much soil to be removed under Building Foundations?	Designer	X	X	X	Design criteria-Design Team
3	9/24	Consider using PEX Plumbing lines inside bldg. due to No Freeze Protection Needed.	JG	X	X	7/1	Information-Design Team
2	9/24	Horizontal Office Windows: Minimum bottom of window frame = 5'41" above floor.	/Ed	X	X	X	Information Only
1	9/24	Riser Rooms: Not required inside Bldg., if needed build Exterior 4'X4' CMU Wall wished roof. Design: Above Bridge Crane Raceway to Run Air & Water Lines overhead	/Ed	X	X	X	Information Design Team and Fire Engineer

(PROJECT NAME) NARRATIVE SCHEDULE UPDATE AS OF 02/02/00

BASE LINE #1 (STARTING) LOGIC SUBMITTAL & APPROVAL

Issued:

Accepted:

OVERVIEW:

(The initial presentation)

- 1. project description**
- 2. Contract start date**
- 3. Project duration**
- 4. Contract completion date**
- 5. Concerns for the project**
 - **Setting of the processes for the project team in relation to the project schedule, i.e. who is responsible for what.**
 - **Potential construction issues related to deliverables.**
 - **Outside issues relating to the project relating to county & utility processes.**
 - **Contract completion regarding design issues**
 - **Put it all on a positive spin for the management group & how we can help one another to be successful in the goal of the project.**

POTENTIAL SCHEDULING ISSUES:

- **Deliverables**
- **County & utility approvals**
- **Design issues**

Operable Walls:

The Architect has approved the submittal but has directed the contractor to delay the ordering of the operable wall panels pending approval from the Owner. Due to the Cotton Fiber Insulation issue this has become secondary but will shortly become the primary scheduling issue.

Previous 2/15/14: The operable wall subcontractor has yet to provide product submittals. Per conversations with the subcontractor, delivery of materials is typically four to six weeks after they install the track. We can shorten this duration by providing the subcontractor with hold-to dimensions for the height and width of the opening which would allow for immediate ordering of the panels. Providing hold-to dimensions needs to occur on or before **February 17** to meet the current completion date of April 7. Additionally, the Owner and/or Architect must allow the subcontractor to order the panels from the manufacturer prior to submittal approval.

SCHEDULING ISSUES:

(What are the issues affecting the critical path project completion pertaining to the contractor's issues & how do they affect the critical path.)

CONTRACTOR NAME

GENERAL CONTRACTOR

(What are the issues affecting the critical path project completion pertaining to change order or contract change for time & possibly general condition costs & how do they affect the critical path.)

(Issue 001..... start date: proceeds activity con 15.400 Plumbing in ground & inspections conclusion potential delay of completion date to: conclusion of issue (date) 001: completion, new completion date: to be address in a CR for time, GC impacts to be evaluated at a later time.)

(Summarize the impacts of the current situation)

The project completion is **delayed** and has a new completion date of **April 11, 2014**, this is due to late delivery of the cotton fiber insulation. On February 7, the supplier had given a six-day duration for airfreight of materials. The actual duration is now estimated at twelve days extending the delivery date from February 22 to February 28.

The completion date is now pushing the contract duration due to change orders. The contract time must be adjusted once delivery dates are solidified. The Contractors costs for added time can then be determined.

Cotton Fiber Insulation:

Change Request #4 was verbally approved on February 16 and the materials ordered on that same day. The delivery for materials is taking six days longer than the suppliers estimated duration.

Previous 2/15/14: Change Request #4 for this material substitution was issued on February 14. The schedule has been adjusted to allow for a February 21 material delivery date and **assumes a verbal approval of Change Request #4 on February 15.**

Previous 2/8/14: Change Request approval must be made by noon February 10 to insure no impact to the schedule. Materials must be shipped via air from Minnesota for start of installation by no later than February 17. Adjustments to the schedule will need to occur. This will entail hanging drywall on one side only of framed walls prior to arrival of insulation materials.

FINAL CHANGE CONDMONS OF SCHEDULE ISSUES:

Conclusion of Issue 001: (narrative) CR # awaiting approval CR approval (date) (summary)

BASE LINE REVISIONS: #1(As submitted) #2 (As accepted)

Base line #2: Narrative and Completion date (submitted CR#) as (accepted in CO#)

Respectfully Submitted:

JG Geis — Owner's Representative - Project Manager

PROJECT NAME
RAIN DELAYS/CONCRETE POUR DELAYS/ROOFING DELAYS
15-Dec-00

SAMPLE

DATE	# OF DAYS	DESCRIPTION OF DELAY	I	COMMENTS
11/13/00	14	CONCRETE SLAB POURS		RAIN
12/23/00	1	CONCRETE POUR		RAIN
12/27/00	1	CONCRETE POUR		RAIN
12/31/00	1	CONCRETE POUR		RAIN
1/3/00	1	CONCRETE POUR		RAIN
2/24/00	1	ROOF FRAMING		WIND
2/25/00	1	ROOF FRAMING		RAIN
2/27/00	1	ROOF FRAMING		RAIN
3/4/00	1	ROOF FRAMING		WIND
3/5/00	1	ROOF FRAMING		WIND
3/6/00	1	ROOF FRAMING		WIND
3/10/00	1	MEMBRANE ROOFING		RAIN
3/11/00	1	MEMBRANE ROOFING		RAIN
3/13/00	1	MEMBRANE ROOFING		RAIN
3/17/00	1	MEMBRANE ROOFING		RAIN
3/24/00	1	SITWORK/ROOF		RAIN
3/25/00	1	MEMBRANE ROOFING		RAIN
3/26/00	0	MEMBRANE ROOFING		RAIN
TOTAL	30			

Employee Weekly Timesheet

EMPLOYEE:

WEEK ENDING:

JOB NAME	JOB NUMBER	COST CODE	SUN	MON	TUBS	WED	THUR	FRI	SAT	TOTAL	COMMENTS
										0.0	
										0.0	
										0.0	
										0.0	
										0.0	
										0.0	
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										0.0	
										0.0	
										0.0	
										0.0	
										0.0	
Meeting (non-job related only) • See below.	00-0010	n/a								0.0	
Holiday	00-0010	n/a								0.0	
Vacation	00-0010	n/a								0.0	
Sick Leave	00-0010	n/a								0.0	
Leave without pay	00-0010	n/a								0.0	

0.0
0.0
0.0
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0

Woo the type of meeting m the Comments section. (e.g. CPR tmg, office mtg All meetings related to jobs must be allocated to the individual jobs.

Employee Signature: John Doe

Supervisor's Approval: _____

- Engineering Cost Codes;
- 102.4 Supervision/Administration/Project Engineer
 - 102.6 Supervision/Administration/Estimating
 - 102.8 Supervision/Administration/Project Management

January 20, 2020

SAMPLE

Smith and Company
Attention: Mr.
SMITH XYZ Street
CITY AND STATE, 77000

SUBJECT: NOTICE OF COMPLETION – PROJECT NAME

Dear _____:

I would like to relay my gratitude for the services you provided regarding the building of the Warehouse Project.

The high degree of professionalism and customer-oriented assistance is greatly appreciated and thus acknowledged.

Very Truly Yours,

JG Geis-Construction Manager

FINAL NOTE: The information contained herein was compiled while working on projects with Architects, Engineers and General Contractors. Procedures were written during Pre-Construction Phase to build Mega Projects with budgets ranging from \$50 - \$120 millions.

First Addition Written - June 2011: Took 10+ years to compile data.

Second Addition – January 2020: Revised.