

Introduction

Construction Contracts, Risks & Insurance is for anyone involved in constructing, financing, owning, improving, maintaining or managing real property. Legal risks, administrative issues, sky-rocketing workers' compensation costs, increasing fees and taxation, and complicated insurance issues are only a few of the reasons why construction costs have not dropped as rapidly as they would otherwise, considering these economic times. This presentation is designed to help you avoid the most common pitfalls that cause project shortcomings, defects, delays, cost over-runs, legal disputes and headaches in general.

Pete Fowler Construction Services, Inc. (PFCS) specializes in creating real practical solutions for property owners & managers, builders & developers, construction contractors, product manufacturers & suppliers, lawyers and insurers. Services include construction defect consulting, property inspection & testing, construction management, cost estimating, construction claims consulting, expert witness testimony, finance & accounting, and training & education programs.

Program Outline

Introduction

1. Contracting 101
2. Purchasing Construction Services
3. Scope of Work
4. Contract
5. Risks
6. Insurance
7. Conclusion

Learning Objectives

- Offer an overview of construction contracts and the key components of contracts that aid in the management of risk
- Introduce a framework to help you identify and address the most common pitfalls that cause project shortcomings, defects, delays, cost over-runs, legal disputes, and headaches
- Offer an overview of insurance products that are applicable to construction professionals, businesses, and projects, and their use in managing risks
- Fit this framework for the management of construction risks into PFCS' DBSKCV Method of Construction Management

Back-Up Materials

1. DBSKCV Construction Management Method
2. Request for Proposal Sample
3. Scope of Work Samples and Article
4. AIA 101 and Instructions
5. PFCS Risk Management Checklist
6. Comparison of AIA 201, AGC 200 and EJCDC C-700

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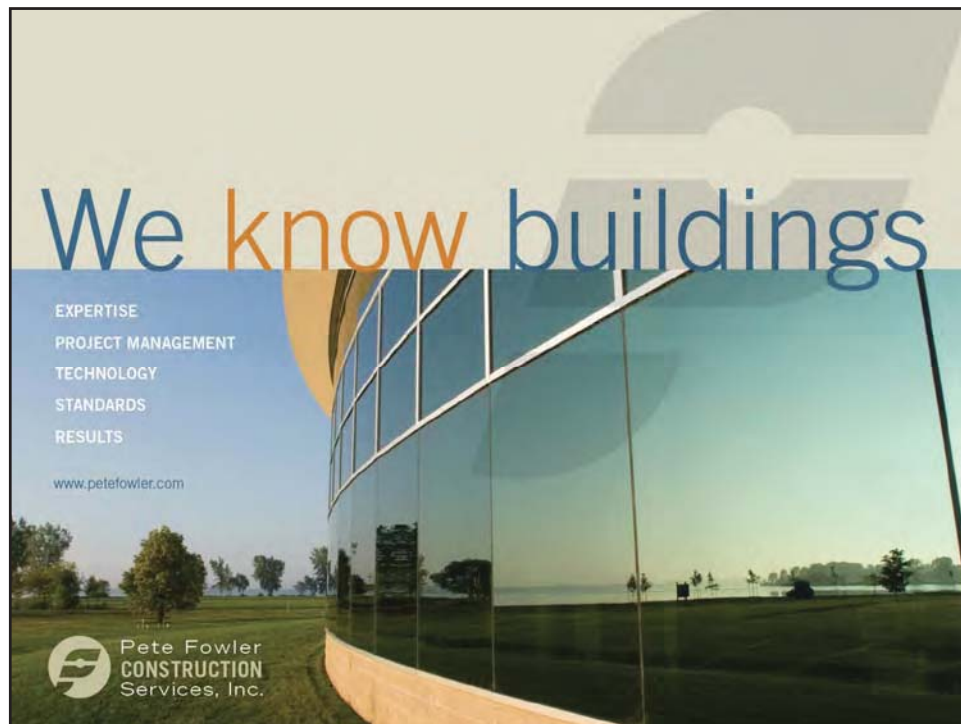
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Construction Contracts, Risks & Insurance

Pete Fowler Construction Services, Inc.
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www.petefowler.com



Pete Fowler
CONSTRUCTION
Services, Inc.

California
T: 949-240-9971

Colorado
T: 303-554-0381

Oregon
T: 503-246-3744



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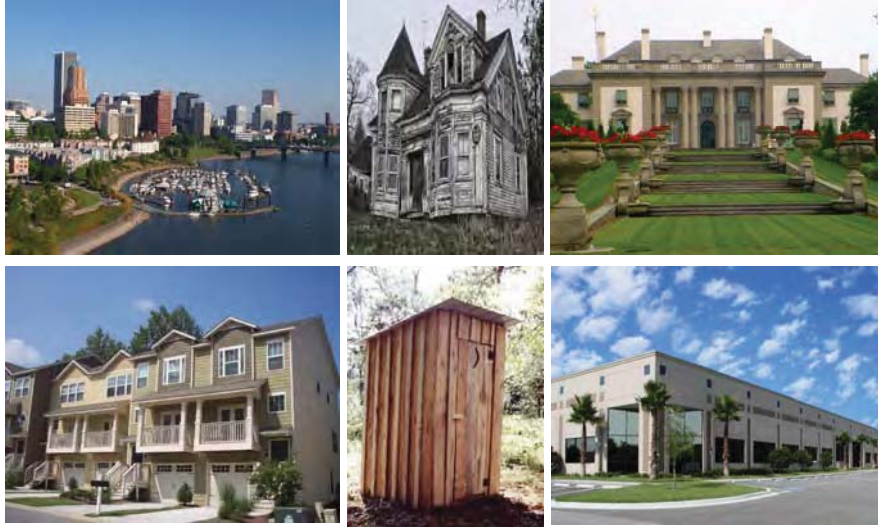
SOLUTIONS

Pete Fowler Construction Services (PFCS) specializes in creating **REAL PRACTICAL SOLUTIONS** for property owners & managers, builders & developers, construction contractors, product manufacturers & suppliers, lawyers and insurers.



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PFCS: We Know Buildings



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PFCS: We Know Buildings



CLIENTS

- Property Owners & Managers
- Builders & Developers
- Contractors
- Product Manufacturers
- Insurers
- Lawyers



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PFCS: We Know Buildings

Building Life-Cycle Management

EVALUATION: We investigate building performance by inspecting, testing, interviewing and analyzing lots of documents and data.

SPECIFICATION: We consult with the Owners to maximize property value, specifying the right maintenance, repairs, and improvements.

QUALITY MANAGEMENT: Manage the scope, budget, schedule and contracts, and verify performance with quality control inspections.

Construction Claims & Litigation

EVALUATION: We investigate building problems by inspecting, testing, and analyzing lots of documents and data.

SPECIFICATION: We create real, practical solutions for how the problems should be fixed and how much they will cost.

ALLOCATION: We compare project performance to standards and our experience so we can explain to others what happened, what should have happened and who is responsible.



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1. CONTRACTING 101



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1. CONTRACTING 101

Contracting 101

- The Owner (1.) wants a project, similar to anyone who wants to buy something, such as a car, but with a construction project the product being purchased is not something that is already built.
- The Owner goes to an Architect (2.) to translate his/her desires into a set of documents.
- The Architect works with (3.) Specialty (Sub) Designers such as structural engineers, mechanical engineers and interior designers to place the details in the (4.) Plans and Specifications (Construction Documents) what the Owner wants to buy from a (5.) General Contractor (GC).
- The Plans and Specifications are sent to qualified and interested GCs, who then submit the proposals to the Owner. Ultimately the Owner and a GC compose an (6.) Agreement (or Contract).



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1. CONTRACTING 101

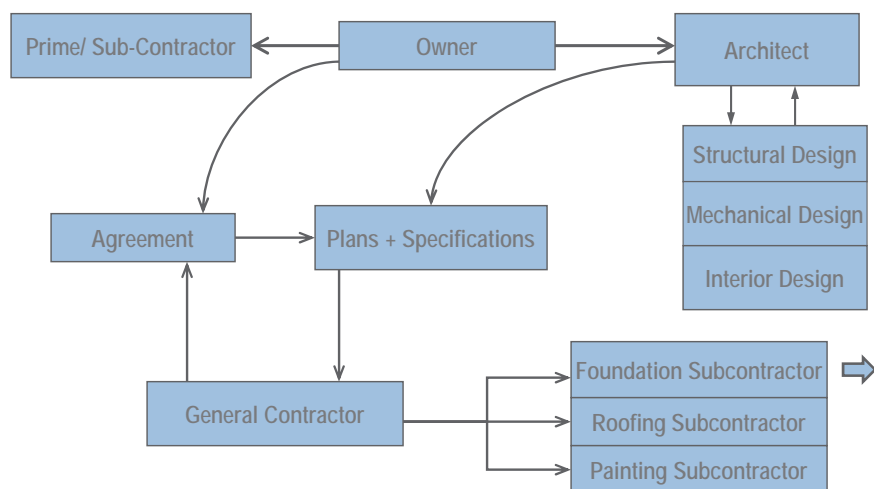
Contracting 101

- An Agreement (or Contract) for construction is simply "a promise by the Contractor to deliver what is described in the Plans and Specifications and a promise by the Owner to pay for it."
- The Agreement refers to the Plans & Specifications and should include the Scope of Work including: Inclusions and Exclusions, Allowances, a provision for handling Change Orders, and Payment Milestones or a Schedule of Values. GCs usually hire (7.) Subcontractors, who are specialists in their respective trades, to help deliver what has been promised in the Agreement.
- There is nothing in this scheme which prohibits the Owner from hiring (8.) Prime Contractors (Specialty / Trade / Subcontractor) directly for work that is not in the Scope of Work in the Agreement with the GC.


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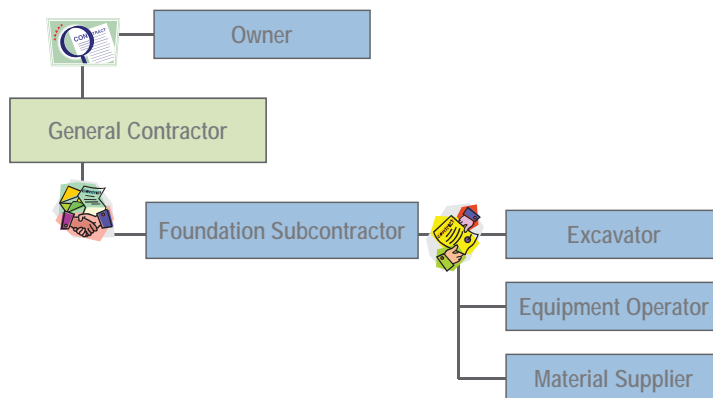
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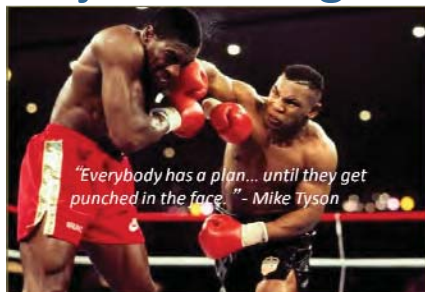
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Contracting 101


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1. CONTRACTING 101

Project Management



Scope	Budget	Actual	Schedule
1. Item 1	\$ XXX	\$ XXX	Plan/Actual
2. Item 2	\$ XXX	\$ XXX	Plan/Actual
3. Item 3	\$ XXX	\$ XXX	Plan/Actual
4. Item 4	\$ XXX	\$ XXX	Plan/Actual
5. Item 5	\$ XXX	\$ XXX	Plan/Actual
6. TOTAL	\$ X,XXX	\$ X,XXX	


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1. CONTRACTING 101

The DBSKCV CM Method Overview

- Define
- Budget
- Schedule
- (K) Contract
- Coordinate
- Verify



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1. CONTRACTING 101

The DBSKCV CM Method Overview

Define the Scope of Work (this includes the design phase).

Budget: identify how much the project will cost the contractor and owner.

Schedule when the construction will happen (and share this information).

Contract (K): Who is doing what? Everyone should know what to expect.

Coordinate the construction.

Verify, document and communicate that everyone is doing what they should.



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1. CONTRACTING 101

Prime vs. Sub Contracts



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1. CONTRACTING 101

Project Delivery Schemes

- Design-Bid-Build
- Construction Management
- Design-Build
- Owner-Builder



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Case Study

1. CONTRACTING 101

Our Simplified Case Study:
*DBSKCV® One Page
 Summary*


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Case Study: Defining Our Project

1. CONTRACTING 101

- Define: We will build a new outhouse approximately 100 feet from an existing rural residence. Not pretentious, but of a quality and esthetic consistent with the existing residence. The building shall be approximately 4 feet square and 8 feet tall. There shall be a single door and one interior seat. The construction will be wood frame, exterior building walls will be wood siding, and the roof will be sloped with asphalt composition shingles.
- Budget: Intend to keep total project costs at approximately \$1,000.
- Schedule: We need to have this new construction completed before the end of this year.


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Case Study: Defining Our Project

1. CONTRACTING 101

- Contract: We intend to construct this project under a traditional Design-Bid-Build scenario, with a construction manager as advisor.
- Coordinate: We will have a construction manager as advisor to the owner who stewards the project from beginning to end, coordinating design professionals, soliciting bids, facilitating contract agreements, processing payments, and verifying conformance.
- Verify: The construction manager will process payment applications, conduct site visits at pre-defined hold points and conduct a final walk-through with the general contractor.



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Case Study: Building Contract Documents

1. CONTRACTING 101

- Define: Plans, Scope of Work
- Budget: Budget, Schedule of Values
- Schedule: Project Schedule, Notice to Proceed
- Contract: Prime Contract, General Conditions, Addenda A: Scope of Work (from Define above), Addenda B: Payment Request Forms
- Coordinate: Correspondence, Daily Log
- Verify: Application for Payment, Hold Points, Certificate of Substantial Completion



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1. CONTRACTING 101

Milestones vs. Values

#	Scope	Milestone	Value	PMT #1	PMT #2	PMT #3	Total Paid
1	Excavation	200	250	0	0	0	0
2	Walls *1	200	300	0	0	0	0
3	Roof	200	200	0	0	0	0
4	Signage*2	100	50	0	0	0	0
5	Paint*3	100	100	0	0	0	0
6	Complete	200	100	0	0	0	0
7	Total	1,000	1,000	0	0	0	0
8	-	-	-	-	-	-	-
9	CO#1	-	-	-	-	-	-
10	CO#2	-	-	-	-	-	-
11	CO#3	-	-	-	-	-	-
12	CO#4	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	Total	-	-	-	-	-	-

Notes: (1.) Allowance of \$30 for hardware. (2.) Allowance of \$40 for signs.
 (3.) Allowance of \$40 for material. (4.) Exclusion - Ladder


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1. CONTRACTING 101

Managing the Risks on Our Sample Projects

- Risk Identification
- Risk Management


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1. CONTRACTING 101

Payment Application #1

#	Scope	Milestone	Value	PMT #1	PMT #2	PMT #3	Total Paid
1	Excavation	200	250	200	0	0	200
2	Walls *1	200	300	30	0	0	30
3	Roof	200	200	0	0	0	0
4	Signage*2	100	50	0	0	0	0
5	Paint*3	100	100	0	0	0	0
6	Complete	200	100	0	0	0	0
7	Total	1,000	1,000	230	0	0	230
8	-	-	-	-	-	-	-
9	CO#1: Hardware	-	10	10	-	-	10
10	CO#2: Delete Signs	-	-	-	-	-	-
11	CO#3: Paint	-	-	-	-	-	-
12	CO#4: Landscaping	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	Total	-	1,010	240	-	-	240

Notes: (1.) Allowance of \$30 for hardware. (2.) Allowance of \$40 for signs.
 (3.) Allowance of \$40 for material. (4.) Exclusion - Ladder


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1. CONTRACTING 101

Payment Application #2

#	Scope	Milestone	Value	PMT #1	PMT #2	PMT #3	Total Paid
1	Excavation	200	250	200	50	0	250
2	Walls *1	200	300	30	270	0	300
3	Roof	200	200	0	200	0	200
4	Signage*2	100	50	0	50	0	50
5	Paint*3	100	100	0	0	0	0
6	Complete	200	100	0	0	0	0
7	Total	1,000	1,000	230	570	0	800
8	-	-	-	-	-	-	-
9	CO#1: Hardware	-	10	10	-	-	10
10	CO#2: Delete Signs	-	-50	-	-50	-	-50
11	CO#3	-	-	-	-	-	-
12	CO#4	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	Total	-	960	240	520	-	760

Notes: (1.) Allowance of \$30 for hardware. (2.) Allowance of \$40 for signs.
 (3.) Allowance of \$40 for material. (4.) Exclusion - Ladder


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1. CONTRACTING 101

Payment Application #3

#	Scope	Milestone	Value	PMT #1	PMT #2	PMT #3	Total Paid
1	Excavation	200	250	200	50	0	250
2	Walls *1	200	300	30	270	0	300
3	Roof	200	200	0	200	0	200
4	Signage*2	100	50	0	50	0	50
5	Paint*3	100	100	0	0	100	100
6	Complete	200	100	0	0	100	100
7	Total	1,000	1,000	230	570	200	1,000
8	-	-	-	-	-	-	-
9	CO#1: Hardware	-	10	10	-	-	10
10	CO#2: Delete Signs	-	-50	-	-50	-	-50
11	CO#3: Paint	-	60	-	-	60	60
12	CO#4: Landscaping	-	100	-	-	100	100
13	-	-	-	-	-	-	-
14	Total	-	1,120	240	520	360	1,120

Notes: (1.) Allowance of \$30 for hardware. (2.) Allowance of \$40 for signs.
 (3.) Allowance of \$40 for material. (4.) Exclusion - Ladder


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The DBSKCV™ Construction Management Method

What is this DBSKCV™ “Method”?

Since the time of the ancient Greeks, humans have been creating and using problem solving “methods” to help us structure situations to aid in identifying the best available alternatives. Some examples of these methods include:

- Classic Problem Solving (Where are we? Where are we going? How do we get there?)
- Scientific Method (Observe, Hypothesize, Predict, Test, Repeat)
- Alcoholics Anonymous’ 12-Steps (admit, believe, decide, inventory, confess, prepare, ask, list, amends, continue inventory, pray for knowledge, help)
- Dr. Deming’s 14-Points for Quality Management (purpose, philosophy, variation, suppliers, improvement, training, leadership, fear, barriers, slogans, eliminate MBO, workmanship, self-improvement, transformation)
- Six Sigma for Process Improvement (Define, Measure, Analyze, Improve, Control)
- Franklin Covey’s Project Management Method (Visualize, Plan, Implement, Close)
- Project Management Institute’s 9 Project Management Categories (Management of Scope, Time, Cost, Human Resource, Risk, Quality, Procurement, Communication, Integration)
- ASTM Standards: E 2018 Property Condition Assessments, E 2128 Standard Guide for Evaluating Water Leakage of Building Walls, E 1739 Guide for Risk Based Corrective Action.

The DBSKCV™ (pronounced “dib-skiv” - DiB-SKCiV) Method is a six-category framework to aid construction professionals in achieving construction project objectives. The DBSKCV™ Method begins with a

Project Plan (Figure 1), which starts with identification of the project Objective. We then use the DBSKCV™ *Menu of Deliverables* (Figure 2) as a menu to select documents or actions that will aid us in moving from where we are to our stated objective. The final step in project planning is to create a step-by-step list of actions. First we plan the work, and then we work the plan. Take a minute or two to review the plan and menu.

This is harder than it sounds. Construction people have a bias toward action; which is a good thing – we like to see things happen. But we need to resist the temptation to do work before planning. This way, we can be sure to not waste time on unnecessary activity, which is a common source of project failure.

What is Construction Management (CM)?

The Construction Management Association of America (CMAA) says the 120 most common responsibilities of a Construction Manager fall into the following 7 categories:

1. Project Management Planning, 2. Cost Management, 3. Time Management, 4. Quality Management, 5. Contract Administration, 6. Safety Management and 7. CM Professional Practice. This includes specific activities like defining the responsibilities and management structure of the project management team, organizing and leading by implementing project controls, defining roles and responsibilities and developing communication protocols,

and identifying elements of project design and construction likely to give rise to disputes and claims.

Why is Construction and Construction Management Important?

Construction professionals are living in a new world. The following social & economic realities make construction, CM and professionalism in construction critical:

- Building construction is a fundamental component of human society.
- Construction constitutes nearly 10% of Gross Domestic Product (GDP).
- Consumers are expecting quality increases and price decreases in all products.
- The building industry, in general, is not keeping pace with the quality and price improvements that many industries are making.
- The building industry is not attracting the brightest young people into the industry.
- Consumers are more litigious than ever and are becoming more and more so.
- There is a proliferation of attorneys.
- The built-environment has been altered dramatically in the last 20 years.
- Consumers are more conscious of building related health issues than ever.
- In some areas, a lack of skilled construction labor makes the construction professional's job even more critical.

Project Planning and Management

There is no way to 100% guarantee project success. The closest I have found to a guarantee (and I have been looking long and hard) is to hire highly experienced geniuses, or to use a proven **system**. So if you are not a genius, or can not afford an entire team of them, you better read on.

It is also my experience that **planning always saves time**. As I mentioned before, construction people want to see things happen and it takes discipline to resist the temptation to start working before completing the Project Plan. Remember: Planning is the closest we can get to a guarantee of project success.

Growing legal risks, administrative issues, sky-rocketing workers' compensation costs, increasing fees and taxation, and complicated insurance issues are only a few of the reasons why the price of construction is higher today than ever before. In addition, managing risk and facilitating a smooth operation are reasons enough to use a system for the management of your project.

We have all heard the adage: "Good people are hard to find." I think good companies are even harder to find. All great businesses create systems that help good people achieve the goals of the company. Most companies, particularly in the construction industry, rely on individuals to develop their own systems. This means the individual has to be some kind of genius. Geniuses **are** hard to find, but not as hard to find as good companies with good systems.

The construction industry is attracting fewer "geniuses" than other industries. We need to make it easier for construction managers to succeed, giving them tools and techniques to keep promises, balancing the big three (cost, quality, and time), to offer continuously improving value (more quality for less cost and time), and to **earn** the money they could make in competing industries. Teaching construction managers to plan profitable projects and manage them through fruition is a fundamental that the construction industry is not doing well enough.

Dealing with contractors and subcontractors requires skill, professionalism, and a system.

The quality of contractors ranges from excellent to criminally incompetent, which can make the process range from complex but satisfying, to nightmarish and costly. We can not rely on contractors to act professionally – if they do, let it be a pleasant surprise, and when some don't, we must have a system in place to manage the problem. My experience suggests that a nice but incompetent contractor might cost us more than a competent criminal. Don't let yourself be the victim of a contractor's lack of sophistication. If you use a process to guide you in dealing with problem contractors and project pitfalls, success is much more likely. The right planning activities at the beginning of the project will equip you to deal with the incompetent or the unscrupulous.

Summary of the DBSKCV™ Method

- Define the Scope of Work (this includes the design phase).
- Budget: identify how much the project will cost the contractor and owner.
- Schedule when the construction will happen and share this information.
- Contract: Who is doing what? Everyone should know what to expect.
- Coordinate the construction.
- Verify, document and communicate that everyone is doing what they should.

Each of these categories could be books by themselves. The idea here is to fly over the subject of Construction Management so that we see the big-picture. We need to understand the forest, so we don't get lost in the trees. Dealing with details before understanding the big picture can be dangerous. In construction, dangerous means expensive.

I. Define the Scope of Work

The "Define" phase of construction management consists of documenting the

work to be performed. This is usually done graphically and in writing with plans, specifications, references to codes and standards, and detailed "Scope of Work" documents. Getting a clear, specific and detailed project scope is the first step in the construction project management process.

See the DBSKCV™ Method Menu of Deliverables (Figure 2) for the most common scope of work documentation. Depending on the type of project, this is sometimes the work of architects and engineers, but many projects are defined by owners and contractors.

Complete, detailed scope of work documentation allows parties a mutual understanding of what is being bought and sold. My company has consulted on many projects where the owner and the contractor were in dispute and the root cause was a lack of clarity from the beginning. A good "scope of work" is like building on a proper foundation and should identify the quantities and locations ("scope") of the work as well as materials, specifications, methods and standards of workmanship. Until you have specified in writing the location, size, shape, materials and workmanship you are envisioning for your project, you are not ready to move forward in the planning process. The "scope of work" (i.e. mutual understanding of what is being bought and sold) should be updated as necessary throughout the project.

Keep in mind that the specifications or methods that are defined in the Scope of Work can mean the difference between long term success and failure. As an example, the right paint specifications can double the life of a paint job. If the owner thinks they are buying a 10-year paint job, but the specification will not deliver, a "re-meeting of the minds" might be called for.

Owners or their representatives should not sign a one or two page "Proposal" from a contractor. The "Scope of Work" in such a document is not likely to contain information specific enough to protect the owner if the workmanship is poor. In addition, the contract language will not protect the parties as well as a more complete and professional contract.

II. Budget

Estimating and budgeting are stand-alone areas of professional practice which some construction professionals dedicate their entire careers to. A good estimate for construction is based on lots of assumptions, including the scope of work. If the scope is a moving target, so will the construction costs. Direct costs of construction are usually categorized by Labor, Materials, Equipment and Subcontractors. Most good contractors estimate what they think direct construction costs will be, and then add for overhead, profit, other project costs and contingency, to come up with a contract price.

Total construction cost is made up of so many little pieces that it can become incomprehensible without a system for management. My company has worked on projects in dispute where the records were maintained so poorly that it was impossible to determine the exact costs of construction.

The importance of managing the budget cannot be understated. Before, during and after construction, the construction manager should always know where the project stands relative to the budget. During the course of construction you should know exactly what has been paid and the approximate amount remaining to complete the project.

Keeping an Expense Register that is coded to allocate all expenses is a critical activity

so the original and updated Schedule of Values can be compared to the actual project expense. A Budget Worksheet (similar to AIA form G703) should be setup at the beginning of the project and maintained through project close.

III. Schedule

A schedule can take many forms, including Barr / Gantt charts, or CPM (Critical Path Method) Schedules, but the simplest is a list of activities and when they will be performed. A competent contractor should be willing to put a schedule in writing. The owner should add some contingency time of her own. The schedule gives everyone an idea of what will go on and when and will serve as a measuring stick to compare plan to actual progress. With this tool, everyone can identify problems early.

Scheduling is about communication. Successful project management requires communication of expectations with everyone involved: owner(s), designers, contractor(s), government agencies, subcontractors, suppliers, and more. Each activity in construction is usually pretty simple; the greatest difficulty is often in coordination of so many parties. There are often more things to do and coordinate than people can keep organized in their heads. Unfortunately, many projects never have a schedule put to paper, or even if they have one at the beginning, it is not used as a management tool throughout construction.

IV. Contract

A contract is a binding agreement. It should be used as a communication tool to make sure that all parties understand and agree exactly what is being bought and sold. Like any other powerful tool, it can be dangerous, so be careful. Don't let the excitement of a

big project, a smooth talker, or a busy schedule allow you to gloss over the details.

A prime construction contract is an agreement between the owner and a contractor. A subcontract is an agreement between a prime contractor and some other contractor who will perform all or a portion of the work covered in the prime contract. Thus, if an owner contracts directly with a “subcontractor” like a painter, this is not a subcontract; it is a prime contract. Prime and subcontractors have different rights and responsibilities. Unfortunately, some prime and sub-contractors do not operate professionally.

All contracts for construction should be in writing. We will hit only the high-points here, but at a minimum, a construction contract should contain:

- Full contact information for all parties to the agreement, including contractor license information, physical location of all parties, and a description of the property in question.
- Detailed “Scope of Work” with material, equipment and workmanship specifications. This might include plans, and written specifications describing the work in detail, a list of fixtures, etc...
- Contract Price (Schedule of Values, Allowance Schedule, etc...)
- Payment Schedule
- Construction Schedule and any consequences for failure.

Change Orders are a natural part of construction and a contingency for them should be built into the budget. Change orders become a part of the construction contract, should always be in writing, and should be negotiated and signed at the time the change occurs, not at the end of the project.

A Payment Schedule should be negotiated at the time the contract is signed. Try to never pay more than the value of the work in place. That is, if the project is 50% complete and you have paid 75% of the contract price, then you are in a dangerous position.

Contractors’ lien rights are a complicated collection of legal protections to make sure contractors get paid for improving property. Collection of lien releases verifies that contractors have been paid and protects the property from liens.

V. Coordinate

The “coordinate” phase of construction management takes our planning and puts it to work. We spend a lot of time and energy in the define, budget, schedule, and contract phases, even though we get none of the satisfaction of seeing physical work take place. Remember: When the time to perform has arrived, the time to prepare has passed. If you effectively defined, budgeted, scheduled, and contracted the project, then this phase will go as smoothly as construction ever goes (so there will still be some problems to solve). Coordination of contractors, subcontractors, materials, equipment, inspections, changes, unforeseen conditions, personalities and forces of nature are always a challenge.

In addition to the real “work” of a construction project, the coordination phase is where the miscommunication, screaming matches, fistfights, litigation and endless frustration often occur; we could also call this phase “Herding Cats”. Managing a project from beginning to end requires a combination of construction knowledge, management skills, political savvy, and patience. While construction is usually a simple assemblage of labor, material, equipment and subcontractors, there are so

many moving parts that things regularly can and do go wrong.

Management of construction requires effective communication. Let's make this as clear as possible: OVER COMMUNICATE, in writing. If you have never read *The One Minute Manager*, do so before you start your next project; it takes less than 2-hours and will save more than that in the first week. The point is: (1.) Figure out what good performance looks like, communicate and document it in writing, and get agreement that everyone shares your vision (One Minute Goals). (2.) Make sure there are rewards for good performance because we all want to feel good about doing good work (One Minute Praisings), and (3.) have the courage to administer consequences for poor performance (One Minute Reprimands).

You need to have a filing system for your project and religiously document and file the mountain of project information. There are things that should be performed regularly to keep the project progressing. Forms that might be used and/or updated include: Scope of Work, Specifications, Finish Schedule(s), Schedule of Values, Budget, Expense Register, Project Schedule, Change Orders, Purchase Orders, Contacts List, Daily Log (who did what, how long it took, noteworthy conversations, etc...), Correspondence, Safety Meeting Minutes, Accident Reports, Inspection Check-Lists, Municipal inspection information, etc.

VI. Verify

Verifying that the construction is proceeding as planned is critical. This is where we compare our progress to plan. Big problems start small. When we find variations from our plan, we use our documentation system to memorialize them. Remember that property improvement contractors have become the #1 consumer complaint in the

U.S.; if you do not want to be a sad statistic, then problems need to be nipped-in-the-bud.

The building department might want to inspect at specified points for life-safety issues. If someone says no permit is required, ask them to put it in writing, or call the municipality. Remember: The building department is not where inspection ends. We have listened to scores of owners bemoaning their fate saying, "Where were the city inspectors?", when they had buildings that leaked or were otherwise constructed poorly. The owner or representative will want to "verify" at various hold-points to ensure the quantity and quality of workmanship. There may be special assemblies like roofs, decks, windows or weather-resistive assemblies that should be tested to make sure they were constructed appropriately.

The contractor will be asking for payments based on the Payment Schedule and you will need to verify the work is complete and built to the standards established in the "define" phase of planning. In addition, the owner will want to collect lien releases for work that is completed and paid.

Conclusion

Remember: 1. Use a system to document your objectives and the process of construction, in writing. 2. Communicate with all of the players in the process. 3. Put everything in writing: People are more committed and more accountable when they have put all their promises in writing.

*Project Plan - CM***Objective**

Generic Objective: We will complete and deliver the construction project as promised, with the negotiated level of quality, appropriate building performance, within budget and schedule. Based on our professionalism and effectiveness we will have EARNED enthusiastic recommendations from the client, the respect of other skilled professionals with whom we worked, and the profits we had planned for.

Method

	Description
1	D Define
2	B Budget
3	S Schedule
4	K Contract
5	C Coordinate
6	V Verify
7	
8	
9	
10	

Deliverables

	Description	Priority	Who	When
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Actions / Tasks / Work Breakdown Structure

	Description	Priority	Who	When	Time	\$
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
					-	\$ -

DBSKCV Method

Menu of Deliverables

FIGURE 2

Define	
Deliverables	
Project Summary (AIA G806, G808 & G809)	Workmanship / Trade Standards
Project Checklist (AIA D200)	Architect's Supplemental Instructions (AIA G710)
Plans (As-Built, New Work)	Construction Change Directive (AIA G714, G714 CMa)
Details (Plan, Section, Elevation)	RFI (Request for Information) (AIA G716)
Specifications	RFI (Request for Information) Log
Code References	RFP (Request for Proposal)
Building Standards (ASTM, AAMA, Etc.)	Submittal Transmittal
Testing Standards	Submittal Checklist/Log (Shop Drawing & Sample Record AIA G712)
Schedules: Room, Location, Area, Finishes, Equipment, Door, Window, etc.	Scope of Work (Prime & Sub)

Budget	
Deliverables	
Estimate: Feasibility	Expense Log / Check Register
Estimate: Design/Development	Payment / Application for Payment Log (CSI Form)
Estimate: Bid / Proposal	Allowance Schedule
Estimate Back-Up	Budget: Update (Weekly/Monthly)
Budget (Pre-Construction)	Change Order Summary / Log
Schedule of Values / Budget Worksheet (AIA G703)	

Schedule	
Deliverables	
Project Schedule: List	Project Schedule Actual vs. Plan
Project Schedule: Gantt / Bar	Notice to Proceed
Project Schedule: CPM	Work Breakdown Structure (WBS)

(K) Contract	
Deliverables	
Design Contract (AIA B141, B151, B155)	Indemnity Agreement
CM Contract (AIA B801 CMa)	Addenda (Other)
Consultant Agreement (AIA C141, C142, C727)	RFP (Request for Proposal)/Instructions to Bidders (AIA G709, A701)
Prime Contract (incl. Home Improvement) (AIA A101, A105, A107)	Bid Analysis
General Conditions (AIA A201, A201 CMa)	Proposal (incl. Prime K, Scope & Budget)
Contractor's Qualification Statement (AIA A305)	Subcontract (AIA A401)
Bid, Performance and Payment Bonds (AIA A310, A312)	Work Changes Proposal Request (AIA G709)
Supplemental Conditions (AIA A511)	Change Order (AIA G701, G701 CMa)
Insurance Requirements	Purchase Order

Coordinate	
Deliverables	
Project Plan	Materials List
Correspondence (Letter, Fax, Memo, E-Mail) (AIA G810)	Meeting Agenda
Communication Log	Meeting Minutes
Daily Log	Project Contacts (AIA: Subs G805, Team Directory G807)
Project File (Table of Contents)	One Minute Goals (via One Minute Manager)

Verify	
Deliverables	
Inspection Check-Lists	Safety Plan & Meeting Minutes
Inspection Documentation / Field Report (AIA G711)	Accident / Incident Reports
Municipal Inspection Documents	Timesheets
Hold Points	Punch List
Payment Schedule	Project Close Documents
Application for Payment (AIA G702/703, G702 CMa)	Certificate of Substantial Completion (AIA G704, G704 CMa)
Lien Releases (AIA G70)	Insurance & Additional Insured Endorsements
Contractor's Affidavit of Payment of Debts (AIA G706)	

DBSKCV Method

Project Plan - CM Sample

FIGURE 3

Objective	Generic Objective: We will complete and deliver the construction project as promised, with the negotiated level of quality, appropriate building performance, within budget and schedule. Based on our professionalism and effectiveness we will have EARNED enthusiastic recommendations from the client, the respect of other skilled professionals with whom we worked, and the profits we had planned for.
------------------	--

Method			
		Description	
1	D	Define	The project is a 4,200 SF commercial tenant improvement.
2	B	Budget	The contract price is \$168,000.
3	S	Schedule	The Project Schedule allows for 4 months to complete.
4	K	Contract	The contract is a standard AIA Form Fixed Price Agreement.
5	C	Coordinate	The plans are now in plan check, and should be ready in 2 weeks.
6	V	Verify	Hold points include paint color sign-off, and the Payment Schedule is monthly.
7			
8			
9			
10			

Deliverables				
	Description	Priority	Who	When
1	Plans	A	ARCH	IP
2	Scope of Work	A	PF	Done
3	Schedule of Values	B	PF	Done
4	Finish Schedule	B	PF	Done
5	Budget Worksheet	B	KL	This Week
6	Allowance Schedule	B	KL	Next Week
7	Project Schedule	B	PF	Next Week
8	Prime Contract	Done	PF	Done
9	Subcontracts (Drywall, ELEC, PLMG, Paint, Cleiling, Flooring)	B	KL	Soon
10				

Actions / Tasks / Work Breakdown Structure						
	Description	Priority	Who	When	Time	\$
1	Call city to check on plans	A		This Week	0.5	
2	Compose Scope of Work document	A	PF	Done		
3	Port Schedule of Values to Budget Worksheet	B	KL	This Week	1.0	
4	Update Finish Schedule by room	B	PF	Done		
5	Create Allowance Schedule and Forward to Owner	B	KL	Next Week	2.0	
6	Create Project Schedule and forward to owner	B	PF	Next Week	2.0	
7	Lay-Out subcontracts & generic Scope of Work	B	KL	Next Week	5.0	
8	Coordinate with subcontractors and deliver information	B	KL	Next Week	8.0	
9	Finalize subcontract for Drywall	B	KL	Soon	4.0	
10	Finalize subcontract for ELEC	B	KL	Soon	4.0	
11	Finalize subcontract for PLMG	B	KL	Soon	4.0	
12	Finalize subcontract for Paint	B	KL	Soon	4.0	
13	Finalize subcontract for Ceiling	B	KL	Soon	4.0	
14	Finalize subcontract for Flooring	B	KL	Soon	4.0	
15	Prepare for project kick-off	B	PF	Soon	4.0	
16						
17						
18						
19						
20						
					46.5	\$ -

2. PURCHASING CONSTRUCTION SERVICES



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2. PURCHASING CONSTRUCTION SERVICES

Purchasing Construction Services Step By Step

1. Outline the Schedule of Values (Preferably by Uniformat)
2. Compose the Scope of Work
3. Select Contract Form and Review the Terms (Really, read it.)
4. Select or Compose General Conditions
5. As necessary, send the contract to the lawyer for review and approval
6. Create a Progress Schedule form using the Schedule of Values
7. Create a Payment Application form using the Schedule of Values
8. Compose RFP (Request for Proposal) / Invitation to Bid document
9. Compile RFP attachments including Scope of Work, plans, etc...
10. Finding Qualified Bidders
11. Delivering RFP / Tendering
12. Analyzing Bids
13. Calling References
14. Making Recommendations
15. Executing the Contract



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2. PURCHASING CONSTRUCTION SERVICES

Project Delivery Schemes

- Design-Bid-Build
- Construction Management
- Design-Build
- Owner-Builder


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2. PURCHASING CONSTRUCTION SERVICES

Schedule of Values

#	Scope	Milestone	Value	PMT #1	PMT #2	PMT #3	Total Paid
1	Excavation	200	250	0	0	0	0
2	Walls *1	200	300	0	0	0	0
3	Roof	200	200	0	0	0	0
4	Signage*2	100	50	0	0	0	0
5	Paint*3	100	100	0	0	0	0
6	Complete	200	100	0	0	0	0
7	Total	1,000	1,000	0	0	0	0
8	-	-	-	-	-	-	-
9	CO#1	-	-	-	-	-	-
10	CO#2	-	-	-	-	-	-
11	CO#3	-	-	-	-	-	-
12	CO#4	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	Total	-	-	-	-	-	-


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2. PURCHASING CONSTRUCTION SERVICES

Progress Schedule



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2. PURCHASING CONSTRUCTION SERVICES


Payment Application

#	Scope	Milestone	Value	PMT #1	PMT #2	PMT #3	Total Paid
1	Excavation	200	250	200	0	0	200
2	Walls *1	200	300	30	0	0	30
3	Roof	200	200	0	0	0	0
4	Signage*2	100	50	0	0	0	0
5	Paint*3	100	100	0	0	0	0
6	Complete	200	100	0	0	0	0
7	Total	1,000	1,000	230	0	0	230
8	-	-	-	-	-	-	-
9	CO#1: Hardware	-	10	10	-	-	10
10	CO#2: Delete Signs	-	-	-	-	-	-
11	CO#3: Paint	-	-	-	-	-	-
12	CO#4: Landscaping	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	Total	-	1,010	240	-	-	240



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2. PURCHASING CONSTRUCTION SERVICES	
Request for Proposal / Invitation to Bid	
Pete Fowler	Page 2 of 2 2A Request for Proposal 11-05-01 A
<p>WORK TO BE PERFORMED: The documentation for the scope of work is contained in the following documents that constitute the entire request for proposal:</p> <ul style="list-style-type: none"> A. Request for Proposal (this document, 2 pages) B. Scope of Work (1 page) C. Images and Information (7 pages) D. Repair Location Map: showing items 3, 5, and 8 (1 page) E. Representative Photographs of Project Scope items (13 pages) F. Building Envelope Innovations LLC "Wet-Flash System" Standard Installation. Please note inclusion of the installation guide is for reference purposes as it shows new installation only. The application and specific Wet-Flash system products utilized for this repair vary slightly due to the windows staying in place. G. Referenced standards in the Scope of Repair are available upon request 	
www.petefowler.com E: info@petefowler.com License # 713718 927 Oaks Heights, Suite 15, San Dimas, CA 92372 T: 949-246-3972 F: 949-246-3972 9328 SW Barbur Blvd., Suite 170, Portland, OR 97219 T: 503-246-3744 F: 503-246-3972	www.petefowler.com Telephone 503-246-3744
 www.petefowler.com	

2. PURCHASING CONSTRUCTION SERVICES	
Finding Qualified Bidders: Sample Script	
<p>We are requesting bids from general contractors to perform work that involves the repair of a failing property line retaining wall between two properties in the Silver Lake area of Los Angeles, with a vertical elevation difference of approximately 9'0". Access will limit the type of equipment and method of repair. The repairs include underpinning the house with helical anchors, replacing a section of retaining wall that is 9' at its highest point with 2 caissons to support the wall, waterproofing at the back side of the new wall, site drainage, stucco on the new wall, an iron fence / guardrail, and replacing concrete flatwork.</p> <ol style="list-style-type: none"> 1. Do you do this kind of work? If no, then do you know anyone who does? 2. Are you interested in bidding such a project? If no, then do you know anyone who does? 3. Are you licensed and insured to do this kind of work? 4. Do you have references that would vouch for you for similar projects? 5. Can I e-mail a Request for Proposal that has all of the bid-documents included? 6. How quickly could you get us a bid? How about if we had all of the Quantity Take Off completed already (then how fast)? 	
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Analyzing Bids

2. PURCHASING CONSTRUCTION SERVICES

Pete Fowler CONSTRUCTION Services, Inc. Bid Analysis Memorandum

Date: May 10, 2011
 To: Condominium Owners Association
 From: Pete Fowler Construction Services, Inc.
 Project: 11111 Condominiums, Milwaukee, WI OFFICE Project No. 10-041
 Reference: Summary of Bids

Dear Condominiums Board of Directors:

Our bidding process involved contacting 4 contractors in the Portland area, sending them our Request for Proposal, and receiving 4 complete bids based on the Scope of Repair as presented in our Request for Proposal package. The deadline was set by the end of the business day, Friday May 6, 2011, however two bidders submitted after this date which was negotiated with PFCS. We have prepared an accompanying Bid Analysis spreadsheet and allow for easy line-by-line comparisons and the bids are attached in their entirety at the end of this document.

Summary of Bids

1. Bidder #1: This bid is the low bid making \$20,693.60. XXXXXX is a vinyl siding

Line Item	Description	Quantity	Bidder #1	Bidder #2	Bidder #3	Bidder #4
1	Cleaning (CSI 01 74): Vinyl siding - OMMITTED	All BLDGS	-	-	-	-
2	Rough Carpentry (CSI 06 10): Repair of damaged OSB below window sill. Connected to Item 5 - see below.	15% (11-13 Windows)	\$3,250.00	\$4,340.00	\$1,350.70	\$2,731.00
3	Rough Carpentry (CSI 06 10): Treat Exposed OSB	2 BLDGS	\$420.00	\$1,920.00	\$766.36	\$14,633.00
4	Omitted	N/A	-	-	-	-
5	Siding (CSI 07 46): Leaks at corners of Window Sill.	76 Windows	\$12,160.00	\$10,960.00	\$13,281.52	\$24,472.00
6	Omitted	N/A	-	-	-	-
7	Siding (CSI 07 46): Siding Corner Trim Components	10 Each, 2 SF total	\$500.00	\$610.00	\$960.00	\$1,725.00
8	Siding (CSI 07 46): Siding Warping due to Reflected Sunlight	4 LOC, 10 SF total	\$400.00	\$190.00	\$117.90	\$5,520.00
9	Flashing and Sheet Metal (CSI 07 61): Lifting Roof to Wall Metal Flashing	All BLDGS, 450 LF total	\$675.00	\$580.00	\$576.50	\$5,175.00
10	Other (Supervision or General Conditions)		\$0.00	\$500.00	\$2,994.69	\$22,713.00
11	Overhead and Profit		\$3,288.60	\$2,860.00	\$5,177.54	\$0.00
12	Grand Total		\$20,693.60	\$21,960.00	\$25,225.21	\$76,969.00

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Calling References: Sample Script

2. PURCHASING CONSTRUCTION SERVICES

1. Date
2. Time
3. Name
4. Company
5. When did XXX work for you?
6. What was the scope of work?
7. What was the original contract price (approximately)?
8. Were there any change orders? How much?
9. Was the work performed on time?
10. Tell me about how things went during construction?
11. How was the quality of the work?



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Making Recommendations

2. PURCHASING CONSTRUCTION SERVICES

[illegible]

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Executing the Contract

2. PURCHASING CONSTRUCTION SERVICES



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Pete Fowler
CONSTRUCTION
Services, Inc.

Request for Proposal

Date:	January 4, 2008
To:	Prospective Contractor
From:	Pete Fowler Construction Services, Inc.
Project:	[REDACTED] [REDACTED] Los Angeles, CA 90039 PFCS Project 06-190
Regarding:	Request for Proposal

Dear Contractor:

We have updated the Scope of Work and attached final plans regarding the above project. We are requesting bids or revisions of bids from general contractors to perform work that involves the repair of a failing property line retaining wall between two properties in the Silver Lake area of Los Angeles, CA [REDACTED] and [REDACTED] with a vertical elevation difference of approximately 9'0". The updates to the Scope of Work include footing for wall section A and caissons at wall section B. Waterproofing system at wall section A and B, including footing drain.

Access will limit the type of equipment and method of repair. The repairs include underpinning the house with helical anchors, replacing a section of retaining wall that is 9' at its highest point with 2 caissons to support the wall, waterproofing at the back side of the new wall, site drainage, stucco on the new wall, an iron fence / guardrail, and replacing concrete flatwork.

The attached plans, information and photographs will describe this work. We will be able to help you with any questions or additional information you may need, including quantities (you will ultimately need to verify this yourself).

This project is fully funded and will begin as soon as the permits are secured. We expect no delay as the City has already agreed to expedite the permit processing. Time is of the essence in receiving your proposal. Contracts will be between the Owner and the Contractor.

If you have any questions, please call us at 949.240.9971.

Bid Package Attachments

1. Request for Proposal (2 pages including this page)
2. General Sequence of Construction (1 page)
3. Scope of Work (1 page)
4. Schedule of Values (Application for Payment Worksheet. 1 page)
5. Structural Plans by John [REDACTED]
6. Site Photographs
7. [REDACTED] Geotechnical and Environmental Sciences Consultants
 - A. Complete GEOTECHNICAL EVALUATION (50 pages – NOT ATTACHED. Available upon request.)
 - B. Recommendations section (report p. 3-12) (Note: This is an earlier repair scheme that has changed and the attached Item 5. Plans prevail)
 - C. Plans (6 pages)

Request for Proposal

BID SELECTION PROCESS: The Owner will select one general contractor to perform the work indicated in the scope of repair documents. A general contractor will be selected on the basis of the following:

- The contractor's demonstrated ability to complete the work within the budget.
- The contractor's demonstrated ability to adhere to an agreed upon construction schedule.
- The total cost of the project.
- Interviews conducted by Consultant and/or Owners.
- The completeness of the contractor's written proposal.

MINIMUM QUALIFICATIONS: Each contractor must demonstrate the following qualifications:

- Contractor's License: A general building contractor (B) license in good standing. Also, the contractor's license bonds must be in good standing.
- Workers Compensation Insurance: Current active worker's compensation insurance. The Contractor selected for this project should be prepared to provide the homeowner with a Certificate of Insurance confirming coverage prior to commencement of any work.
- General Liability Insurance: A policy of liability insurance issued by a carrier authorized to write primary lines of insurance in the State of California with minimum coverage of \$1,000,000 per occurrence. The insurance must provide completed operations coverage, and must include Homeowner and Consultant as additional insured. Contractor will be required to provide Homeowner and Consultant with Certificates of Insurance prior to the commencement of any work.

Each contractor will be given the opportunity to review any and all documentation necessary to formulate a detailed proposal, as well as to inspect the property prior to submitting a proposal. Change orders must be in writing prior to commencement of the extra work and will only be permitted when an unforeseeable condition necessitates additional work.

Scope of Work

Line	CSI	Item	Description	QTY	Unit	Notes	Seq
1	01-00		General Requirements (incl. in values)				99
2		A	Pre-Construction Conference	1.0	EA	Per Soils Report (Rpt.)	1
3		B	Coordination and Scheduling with Owners Throughout	1.0	LS	Or owners representative	2
4		C	Coordination and Scheduling with Engineers Throughout	1.0	LS		3
5		D	Final Clean-Up, including removal / haul-off of spoils	1.0	LS		44
6	02-40		Demolition				99
7		A	Demolish Concrete Patio	380.0	SF	Per Coil Plan	4
8		B	Remove Interior Finish Floor As Nec. (Silver Ridge)		SF	Per Coil Plan	5
9		C	Saw-Cut & Demolish Retaining Wall: Section A		LF	Per Coil Plan	9
10		D	Remove Iron Frame at Section A	1.0	LS		18
11		E	Saw-Cut & Demolish Retaining Wall: Section B		LF		21
12		F	Remove Iron Frame at Section B	1.0	LS		28
13	03-00		Concrete				99
14		A	Footing for Wall Sect. A (Step & Grade Bm.)		CY	Per Coil Plan	11
15		B	Caissons at Wall Section B (18" dia., assume 10' deep)	20.0	LF	Per Coil Plan	23
16		C	Grade Beam at Wall Section B (18" x 36")		LF	Per Coil Plan	24
17	04-00		Masonry				99
18		A	Construct Retaining Wall: Section A		SF	Per Soils Rpt. & Coil Plans	12
19		B	Construct Retaining Wall: Section B		SF	Per Soils Rpt. & Coil Plans	25
20	07-10		Waterproofing (W.P.) - sub-grade				99
21		A	W.P. System at Wall Section A, incl. footing drain		SF	Per Geo Report	15
22		B	W.P. System at Wall Section B, incl. footing drain		SF	Per Geo Report	26
23		C	W.P. System Termination at Top of Wall		LF	Per Geo Report	30
24	09-00		Building Finishes Repairs (ALLOWANCE)			Not Included	99
25		A	Replace Interior Finish Floor As Nec. (Silver Ridge)	0.0	-	Not Included	42
26		B	Repair Exterior Wall Finishes Repair (Silver Ridge)	0.0	-	Not Included	40
27		C	Repair Interior Wall Finishes Repair (Silver Ridge)	0.0	-	Not Included	41
28		D	Paint at Interior and Exterior (Silver Ridge)	0.0	-	Not Included	43
29	22-00		Plumbing				99
30		A	Locate and Cap Existing Sewer & Water Plumbing Lines		LS	Allowance	6
31		B	Run Sleeves Through Wall for Sewer & Water Plumbing As Necessary		LS		13
32		C	Re-Connect Sewer & Water Plumbing Lines		LS	Allowance	29
33	31-20		Earth Moving				99
34		A	Clear Vegetation and Debris		SF	Per Soils Report	7
35		B	Excavation Behind Wall Section A	20.0	CY	Per Soils Rpt. & Coil Plans	10
36		C	Excavation Behind Wall Section B		CY	Per Soils Rpt. & Coil Plans	19
37		D	Excavation for Caissons		CY	Per Soils Rpt. & Coil Plans	22
38		E	Back-Fill Behind Wall Section A		CY	Per Soils Rpt. & Coil Plans	17
39		F	Back-Fill Behind Wall Section B		CY	Per Soils Rpt. & Coil Plans	27
40	31-40		Shoring & Underpinning				99
41		A	Helical Anchors (Assume 10' Deep). Level Structure 2".		EA		8
42		B	Shoring Btwn. Wall A and Existing Wall		SF	Per Coil Plan	20
43	32-10		Site Work (Site Concrete)				99
44		A	Replace Patio Slab Sloped to Drains (4" thk., #3@12" B.W.)	380.0	SF	Per Soils Report	38
45	32-31		Fences and Gates				99
46		A	Install Sleeves / Receiver for Fence at Top of Wall	1.0	LS		16
47		B	Install 42-Inch High Painted W.I. Fence at Top of Wall		LF		39
48	32-32		Retaining Walls: See Concrete & Masonry		LF	Total Wall LF	99
49	32-90		Landscape / Irrigation	Not Incl.		Not Included	99
50	33-22		Fine Grading & Site Drainage				99
51		A	Install Sleeve at Retaining Wall for Drain (Ftg. & Surface)	2.0	EA	Per Geo Report	14
52		B	Grade to Drain (work areas only) Silver Ridge		SF	Per Soils Rpt.	33
53		C	Grade to Drain (at work areas only) Hidalgo		SF	Per Soils Rpt.	34
54		D	Install Sub Grade Surface Drainage at Silver Ridge		LF		31
55		E	Install Sub Grade Surface Drain at Hidalgo to Street	170.0	LF		32
56		F	Connect / Install Rain Gutters to Sub Grade Drainage		LS	Not on plan	37
57							
58			Note: QTY is a rough estimate to aid bidders and shall be confirmed by contractor.				

General Sequence of Const.

Line	CSI	Item	Description	QTY	Unit	Notes	Seq
1	A		Pre-Construction Conference	1.0	EA	Per Soils Report (Rpt.)	1
2	B		Coordination and Scheduling with Owners Throughout	1.0	LS	Or owners representative	2
3	C		Coordination and Scheduling with Engineers Throughout	1.0	LS		3
4	A		Demolish Concrete Patio	380.0	SF	Per Coil Plan	4
5	B		Remove Interior Finish Floor As Nec. (Silver Ridge)		SF	Per Coil Plan	5
6	A		Locate and Cap Existing Sewer & Water Plumbing Lines		LS	Allowance	6
7	A		Clear Vegetation and Debris		SF	Per Soils Report	7
8	A		Helical Anchors (Assume 10' Deep). Level Structure 2".		EA		8
9	C		Saw-Cut & Demolish Retaining Wall: Section A		LF	Per Coil Plan	9
10	B		Excavation Behind Wall Section A	20.0	CY	Per Soils Rpt. & Coil Plans	10
11			Remove Existing Bracing Retaining Wall West of Saw Cut				11
12	A		Footing for Wall Sect. A (Step & Grade Bm.)		CY	Per Coil Plan	12
13	A		Construct Retaining Wall: Section A - 4' High		SF	Per Soils Rpt. & Coil Plans	13
14	C		Re-Connect Plumbing Lines		LS	Allowance	14
15	B		Run Sleeves Through Wall for Plumbing As Necessary		LS		15
16	A		Install Sleeve at Retaining Wall for Drain (Ftg. & Surface)	2.0	EA	Per Geo Report	16
17	A		W.P. System at Wall Section A, incl. footing drain		SF	Per Geo Report	17
17			Hold Point: Let Wall Set 7 Days to Cure Prior to Backfill				18
19	A		Install Sleeves / Receiver for Fence at Top of Wall	1.0	LS		19
20	E		Back-Fill Behind Wall Section A		CY	Per Soils Rpt. & Coil Plans	20
21	D		Construct Upper Portion of Wall 'A'	1.0	LS		21
21			Sawcut Existing Wall at Easterly End of Wall 'B'				22
23	C		Excavation Behind Wall Section B		CY	Per Soils Rpt. & Coil Plans	23
24	B		Shoring Btwn. Wall A and Existing Wall		SF	Per Coil Plan	24
25	E		Saw-Cut & Demolish Retaining Wall: Section B		LF		25
26	D		Excavation for Caissons		CY	Per Soils Rpt. & Coil Plans	26
27	B		Caissons at Wall Section B (18" dia., assume 10' deep)	20.0	LF	Per Coil Plan	27
28	C		Grade Beam at Wall Section B (18" x 36")		LF	Per Coil Plan	28
29	B		Construct Retaining Wall: Section B		SF	Per Soils Rpt. & Coil Plans	29
30	B		W.P. System at Wall Section B, incl. footing drain		SF	Per Geo Report	30
30			Hold Point: Let Wall Cure 7 Days Prior to Backfill				31
32	F		Back-Fill Behind Wall Section B		CY	Per Soils Rpt. & Coil Plans	32
33	F		Remove Iron Frame at Section B	1.0	LS		33
34	C		W.P. System Termination at Top of Wall		LF	Per Geo Report	34
35	D		Install Sub Grade Surface Drainage at Silver Ridge		LF		35
36	E		Install Sub Grade Surface Drain at Hidalgo to Street	170.0	LF		36
37	B		Grade to Drain (work areas only) Silver Ridge		SF	Per Soils Rpt.	37
38	C		Grade to Drain (at work areas only) Hidalgo		SF	Per Soils Rpt.	38
39	F		Connect / Install Rain Gutters to Sub Grade Drainage		LS	Not on plan	39
40	A		Replace Patio Slab Sloped to Drains (4" thk., #3@12" B.W.)	380.0	SF	Per Soils Report	40
41	B		Install 42-Inch High Painted W.I. Fence at Top of Wall		LF		41
42	B		Repair Exterior Wall Finishes Repair (Silver Ridge)	0.0	-	Not Included	42
43	C		Repair Interior Wall Finishes Repair (Silver Ridge)	0.0	-	Not Included	43
44	A		Replace Interior Finish Floor As Nec. (Silver Ridge)	0.0	-	Not Included	44
45	D		Paint at Interior and Exterior (Silver Ridge)	0.0	-	Not Included	45
46	D		Final Clean-Up, including removal / haul-off of spoils	1.0	LS		46

Payment Request Worksheet

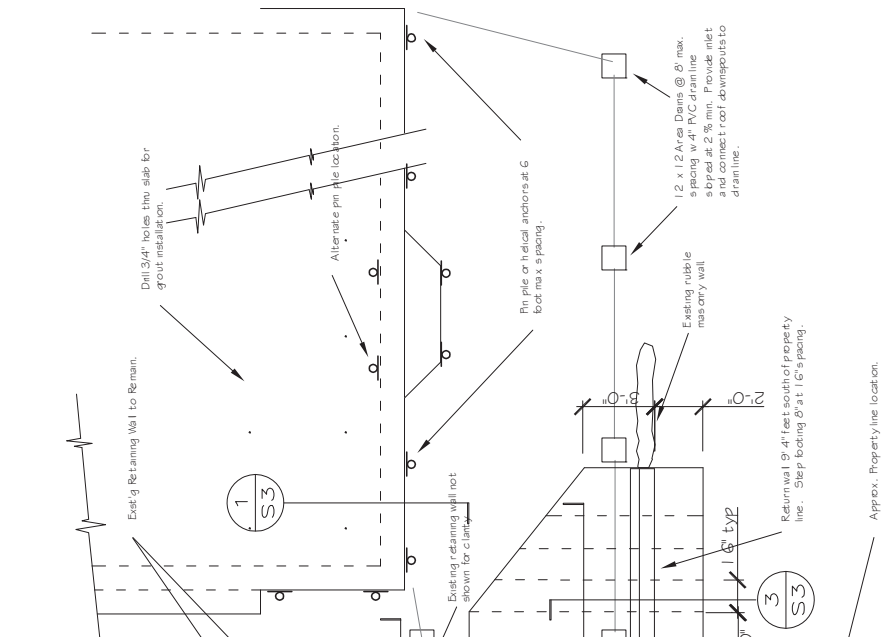
11/12/2007

Application #1 - MO-DY-YR

A		B	C	D	E	F	G	H	I
Item		Description of work	Scheduled Value	Work completed From previous application (D + E)	This period	Materials presently stored (not D or E)	Total completed & stored to date (D + E + F)	Balance to finish (C - G)	Retainage
No.									
									5%
1		01-00 General Requirements							
2		02-40 Demolition							
3		03-00 Concrete							
4		04-00 Masonry							
5		50-16 Structural Metal Framing							
6		07-10 Waterproofing - sub-grade							
7		09-24 Portland Cement Stucco							
8		22-00 Plumbing							
9		31-20 Earth Moving							
10		31-40 Shoring & Underpinning							
11		32-32 Retaining Walls							
12		32 90 Planting (Landscape and Irrigation)							
13		33-22 Fine Grading (& Site Drainage)							
14		99-99 Cosmetic Repair Allowance	\$ 15,000.00						
15									
16									
17									
18									
19									
20		Totals							

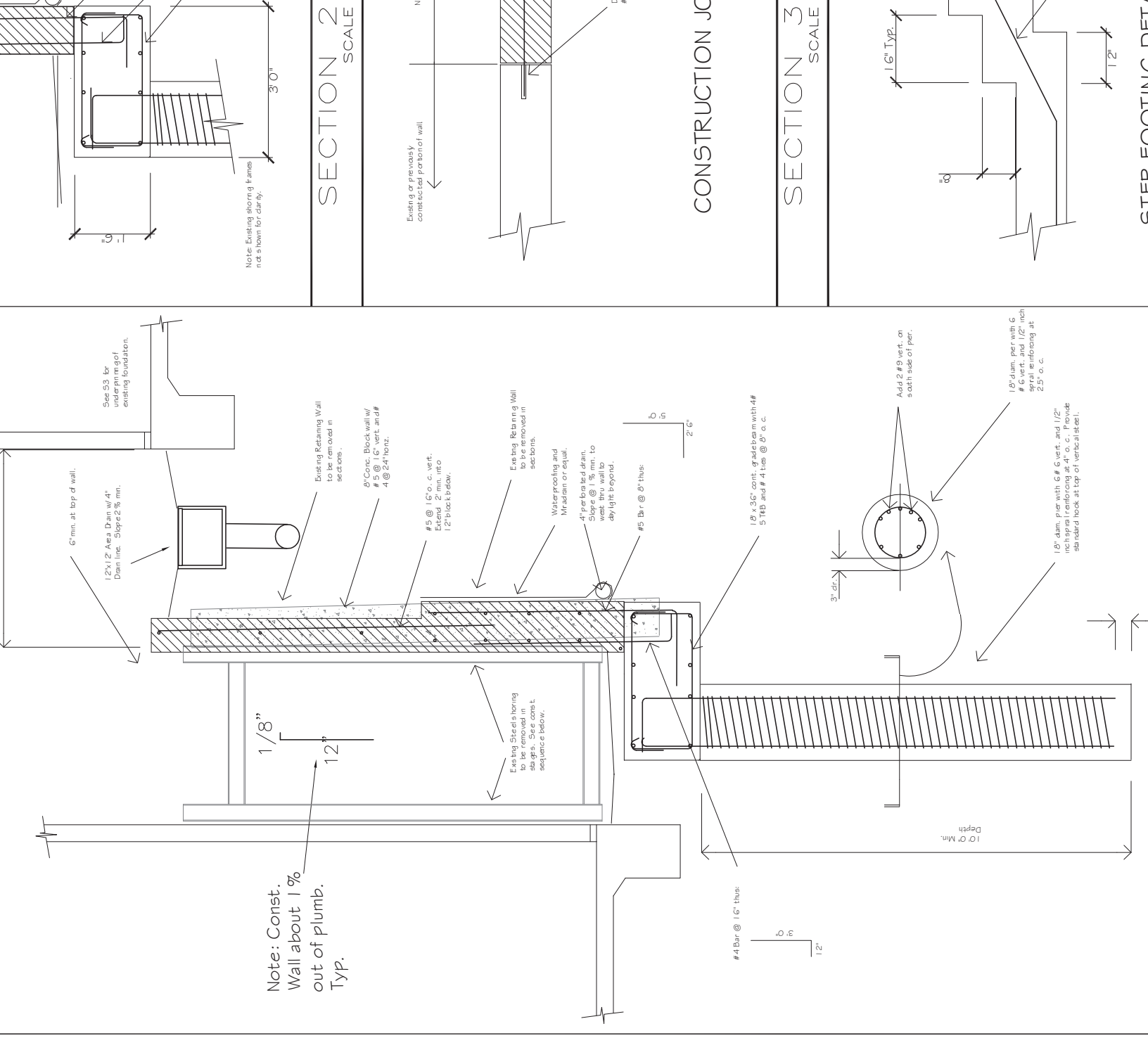
Project Schedule
Project Schedule

#	Description	Weeks Duration	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
1	01-00 General Requirements													
2	02-40 Demolition													
3	03-00 Concrete													
4	04-00 Masonry													
5	50-16 Structural Metal Framing													
6	07-10 Waterproofing - Sub-Grade													
7	09-24 Portland Cement Stucco													
8	22-00 Plumbing													
9	31-20 Earth Moving													
10	31-40 Shoring & Underpinning													
11	32-32 Retaining Walls													
12	32-90 Planting (Landscape & Irrigation)													
13	33-22 Fine Grading (&Site Drainage)													
14	99-99 Cosmetic Repair Allowance													
15														
16														



ENCE

underpinning. location of joint between wall "A" & "B". retaining wall west of saw cut joint. retaining wall "A" footing. wall "A". retaining wall "A" waterproofing and backfill for lower portion of retaining wall "A". retaining wall "A" fully end of wall "B". feet of existing wall at New Wall "B" location. new Wall "A" and existing original wall. g between old retaining wall and side of house. two 18 inch diameter piers. at concrete piers. lateral retaining wall and install shoring in approx. 2' increments. retaining wall "B" tie beam at retaining wall "B". retaining wall "B" waterproof bottom of wall. tie wall "B" in 2' vertical increments, waterproofing and wall progresses. system consisting of 12" x 12" area drains w/ grates and



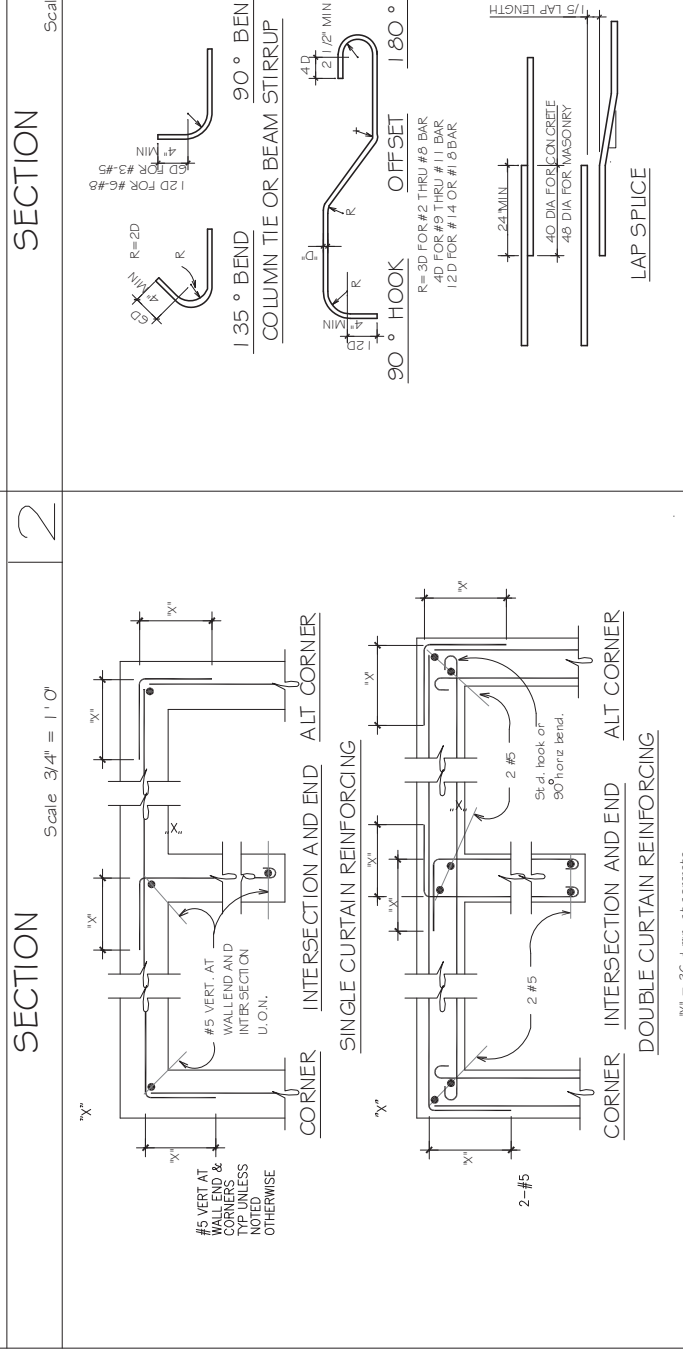
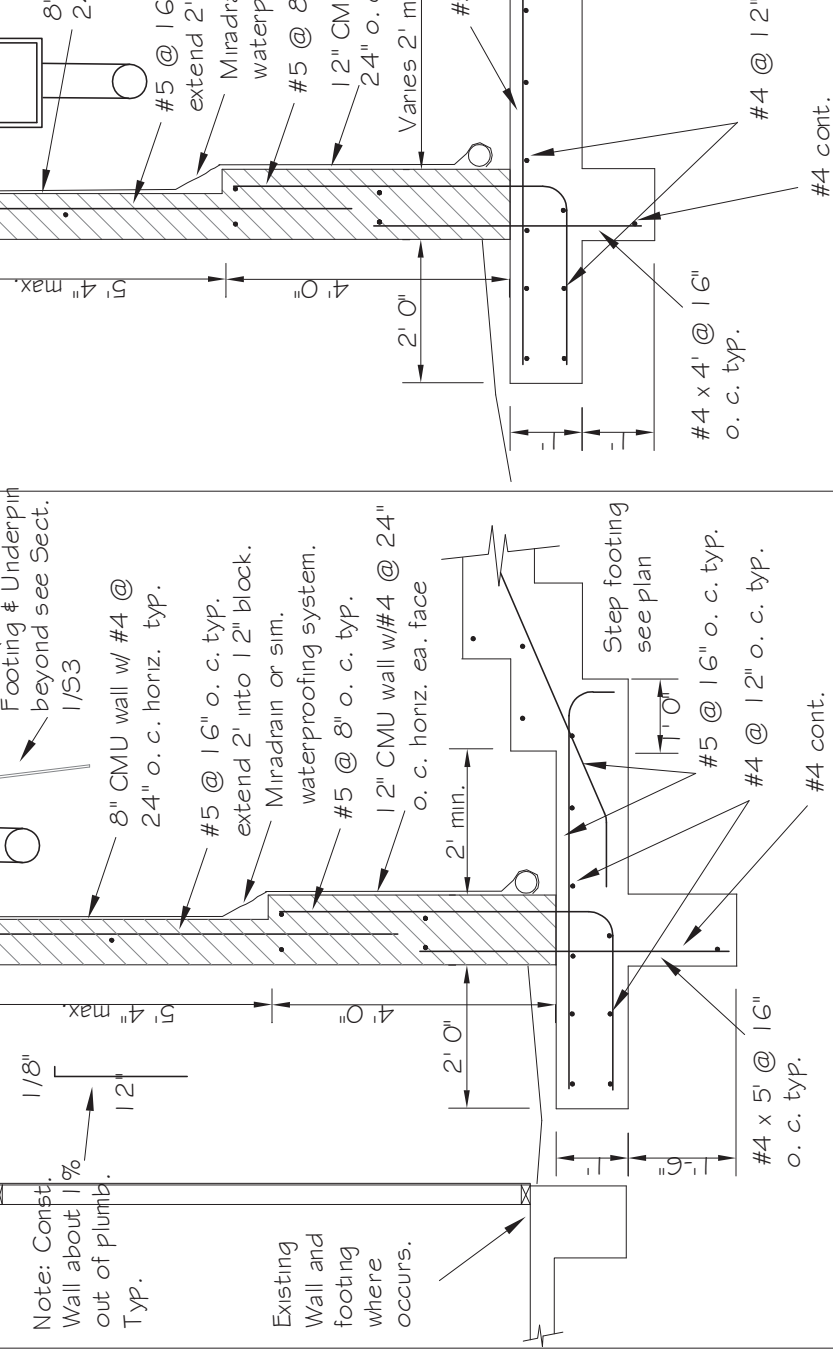
Drill 3/4" diam. holes thru slab at 4' centers ea direction for installation of grout or foam fill after jacking of foundation. (See plan sheet S2)

Alt. Jack location. Remove and replace existing floor slab as required.

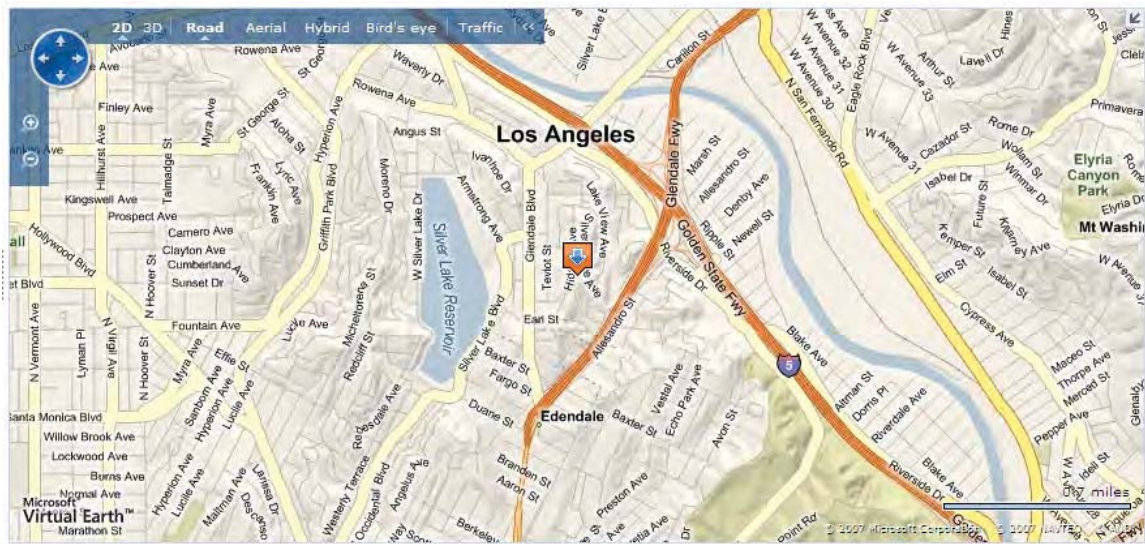
Jack up existing
foundation to releve
floor perimeter 1" +/-

Approx. natural grade location. 10' to 12' +/- below surface grade

Penetrate 2' min. or as
directe in the field.



Site Photographs & Images



Front elevation; overview of [REDACTED]



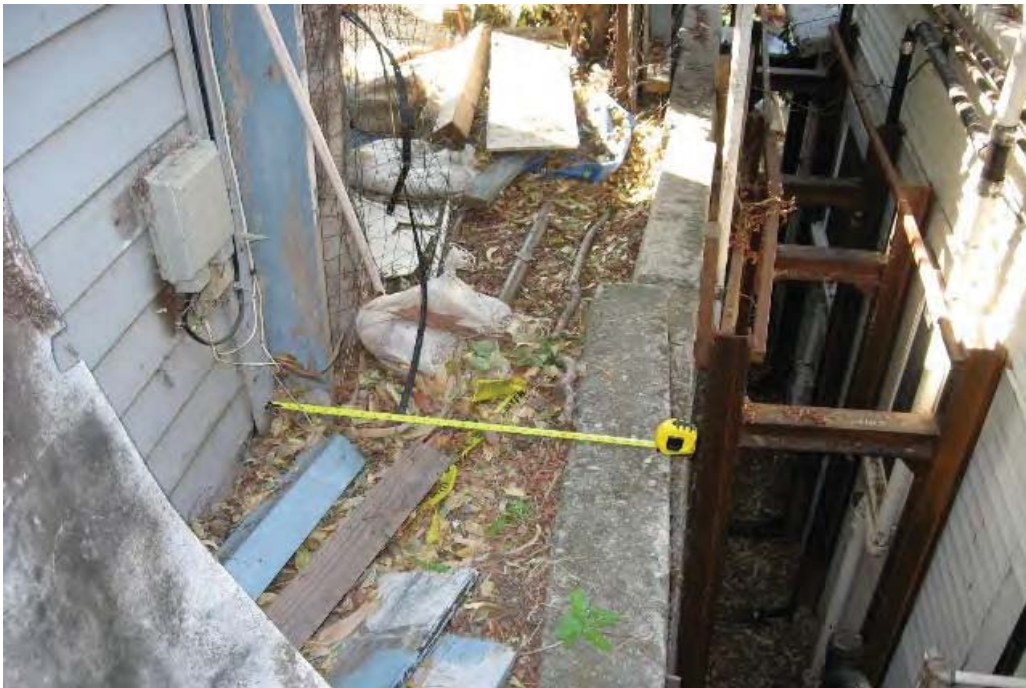
Front/right elevation; area at end of failure wall - temporary shoring - unreinforced CIP wall, plant material in exposed soil. Second unreinforced "rubble" retaining wall to right, approximately 4 - 5' tall.



Right elevation; overview of end of wall - note separate vertical stages. Lower wall CIP against soil (+/- 5'6"). Cold joint at 4'6".



Right elevation; upper wall, temporary shoring frame.



Right elevation from 2335 Silver Ridge Avenue. Side yard wall dimensions and split.

present south of the failed retaining wall near the western property line (Oak). Relatively large trees are also present near the northwest corner of the Oak property.

4. BACKGROUND

Based on our review of background materials, the residence on the Mc property was constructed around 1915. In order to construct the residence, a retaining wall (up to approximately 5 feet high) was constructed along the south side of the property, as well as near the center of the residence. In addition, some grading was performed to create a level pad. No information was available regarding the retaining wall construction or grading. The residence on the Oak property was constructed around 1925. Based on our observations and topographic maps, grading of the hillside involved partial excavation of the southeast side of the property and placement of fill along the northwest side of the property. In order to accommodate the fill soils, the existing retaining wall between the Mc and Oak structures was extended up by approximately 4 to 5 feet to the current pad elevation.

In 1998, wall movement was reportedly observed by Mr. M. A letter dated July 2, 1998, was provided to the owner of the Oak property at that time. The letter indicated that poor drainage was observed behind the top of the wall and requested mitigation of the poor drainage. In 2000, Mc retained a licensed surveyor, to survey the wall. According to the wall was situated on the Oak property

A slope/retaining wall failure occurred on February 5, 2004, resulting in a collapse of the western end of the wall onto the Mc property. Subsequently, a red tag notice indicating that the area is "not safe for human occupancy" was issued by LADBS. Near that time period, the owners of Oak retained a licensed surveyor, to survey the wall. According to the wall was located on the Mc property. In order to remove the red tag status, Mc retained to design a shoring system to temporarily stabilize the wall. The wall was temporarily stabilized with steel beams around February 2005 (Appendix A, Photograph Nos. 1 and 2). The west end of the previous wall, as well as portions of

a rubble wall that extend into the [REDACTED] Oak property, were removed (Appendix A, Photograph Nos. 3 and 4). In July 2005, [REDACTED] performed a geotechnical evaluation of the wall failure on behalf of the Mc [REDACTED] property owners. Due to access restrictions, the evaluation was limited to the Mc [REDACTED] property. Recommendations were provided for the construction of a new wall in front of the failed wall [REDACTED]. We understand that [REDACTED] report has not yet been reviewed by LADBS at the time of this report.

5. OBSERVATIONS

Geotechnical reconnaissance of the site was performed by representatives of our firm on June 14, 2006, January 23, 2007, and May 22, 2007, to observe and photograph the conditions at the subject properties. Our reconnaissance generally included observation of the exterior of the two residences as well as the interior of the residence at the [REDACTED] Oak property. Our observations at the Mc [REDACTED] property were primarily focused along the south side of the property in the area of the failed retaining wall. In general, the conditions observed consisted of the following:

- **Retaining Wall**

- A cold joint was observed approximately 4 feet from the bottom of the wall at the west end (Appendix A, Photograph No. 1).
- Two separate vertical reinforcing bars were exposed at the west end of the wall (Appendix A, Photograph No. 1).
- The backfill behind the wall consisted of a rubble fill with several roots.
- No subdrain system was observed behind the wall.

- **Exterior of the [REDACTED] Oak Property**

- Approximately 3½ inches of lateral movement were observed at the top of the retaining wall (Appendix A, Photograph No. 5).
- Approximately 2 inches of vertical separation were observed between the patio slab and the northwest corner of the adjacent building on the [REDACTED] Oak property (Appendix A, Photograph No. 6).

- Approximately 2 inches of lateral separation and approximately $\frac{3}{4}$ -inch vertical separation were observed in the patio slab at the rear of the [REDACTED] Oak property (Appendix A, Photograph No. 7).
- No significant distress was noted on the exterior walls of the building on the [REDACTED] Oak property (Appendix A, Photograph No. 8).
- **Interior of the [REDACTED] Oak Property**
 - An approximately hairline to $\frac{1}{32}$ -inch-wide crack was observed in the tile at the northwest corner of the upper level in the kitchen area.
 - Racked bedroom bay doors were observed at the rear of the residence (lower level).
 - Warped and/or soft flooring below the carpet in the northwest corner of the residence (lower level) were noted during the floor level survey.

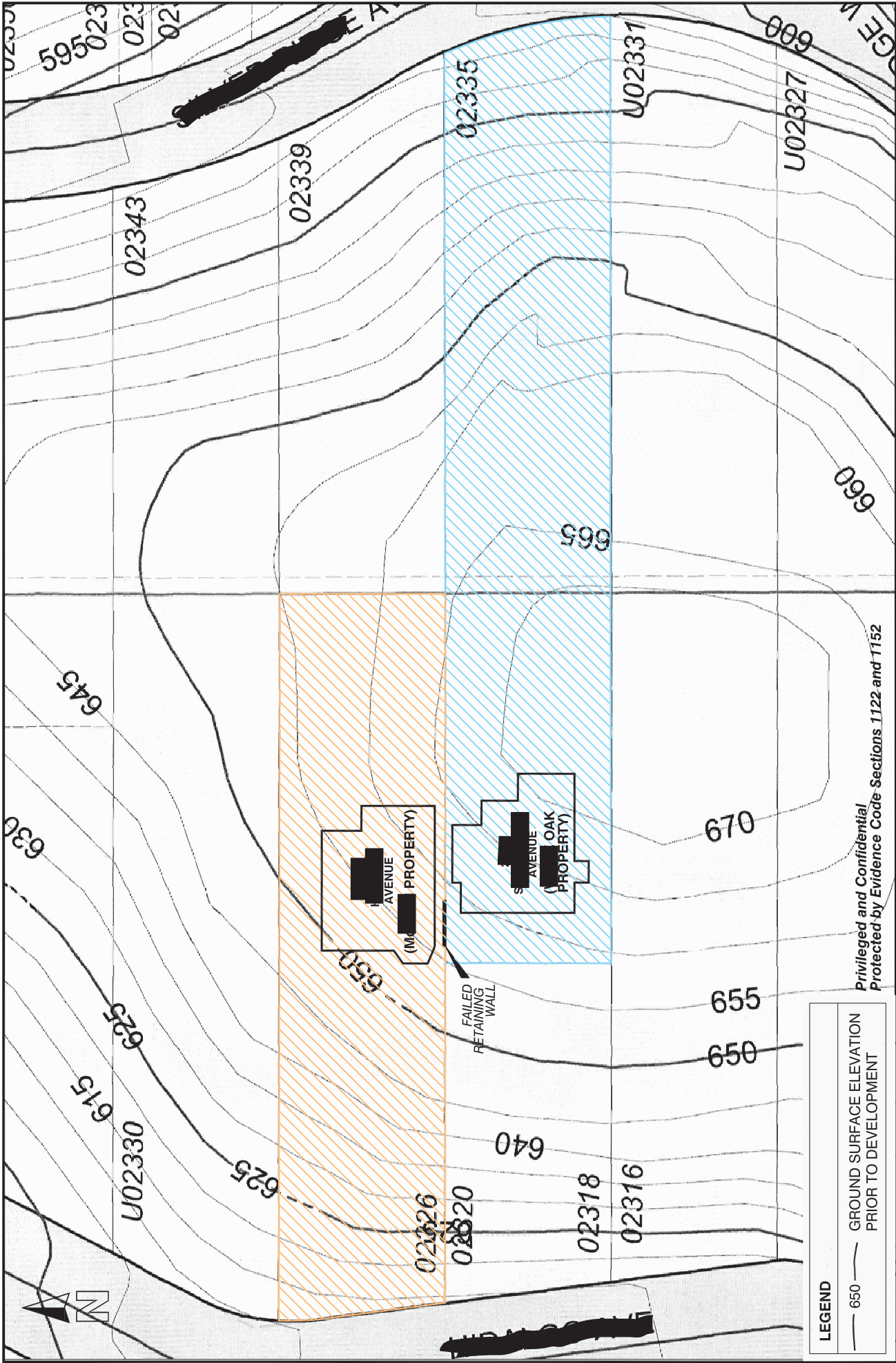
6. FLOOR LEVEL SURVEY

On May 22, 2007, [REDACTED] conducted a floor level (manometer) survey of the first and second floors of the two-story residence at [REDACTED] Oak). The purpose of the floor level surveys was to evaluate the relative elevation differential and contour pattern across the interior floor of the structure. The results of the survey are presented on Figures 3 and 4 for the upper and lower levels of the residence, respectively.

The results of the floor level survey generally indicate that the floors slope from the southeast to the northwest corner of the building. The total differential from the southeast side of the building to the northwest was on the order of $2\frac{1}{2}$ inches over a span of approximately 33 feet. A steeper drop in elevation, however, was noted at the lower level in the far northwest corner with approximately $1\frac{1}{2}$ inches over a span of approximately 5 feet in the area of the bedroom bay doors exiting to the exterior patio.

7. SUBSURFACE EVALUATION AND LABORATORY TESTING

[REDACTED] performed a subsurface evaluation at the site on May 22, 2007. This evaluation included the excavation, logging, and sampling of two exploratory test pits near the northwest corner of the residence on the [REDACTED] Oak property. The test pits were excavated to depths of up



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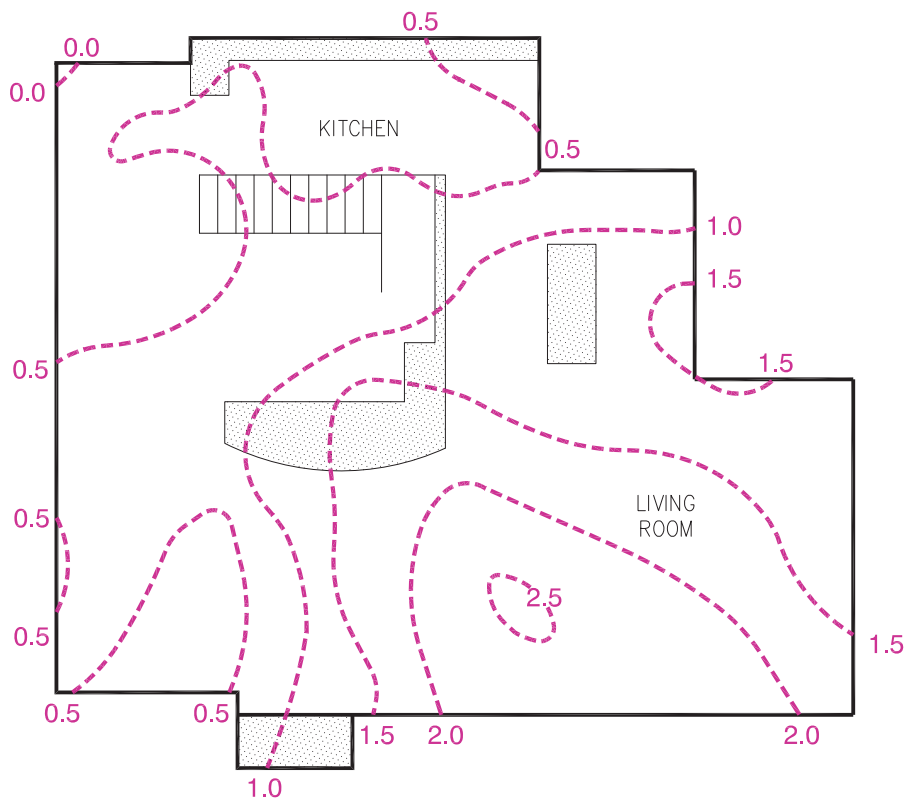
LEGEND

— 650 — GROUND SURFACE ELEVATION PRIOR TO DEVELOPMENT


REFERENCE: NAVIGATE LA.ORG.



TOPOGRAPHIC MAP		FIGURE	
PROJECT NO.		DATE	
206739001		11/07	
PROJECT NAME		FIGURE	
[REDACTED]		2	
LOCATION		LOS ANGELES, CALIFORNIA	



UPPER LEVEL

LEGEND	
--- 2.5 ---	RELATIVE FLOOR ELEVATION IN INCHES
	INACCESSIBLE AREA (CLOSETS, COUNTERS, ETC.)



APPROXIMATE SCALE IN FEET



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

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FLOOR LEVEL SURVEY OF

FIGURE

3

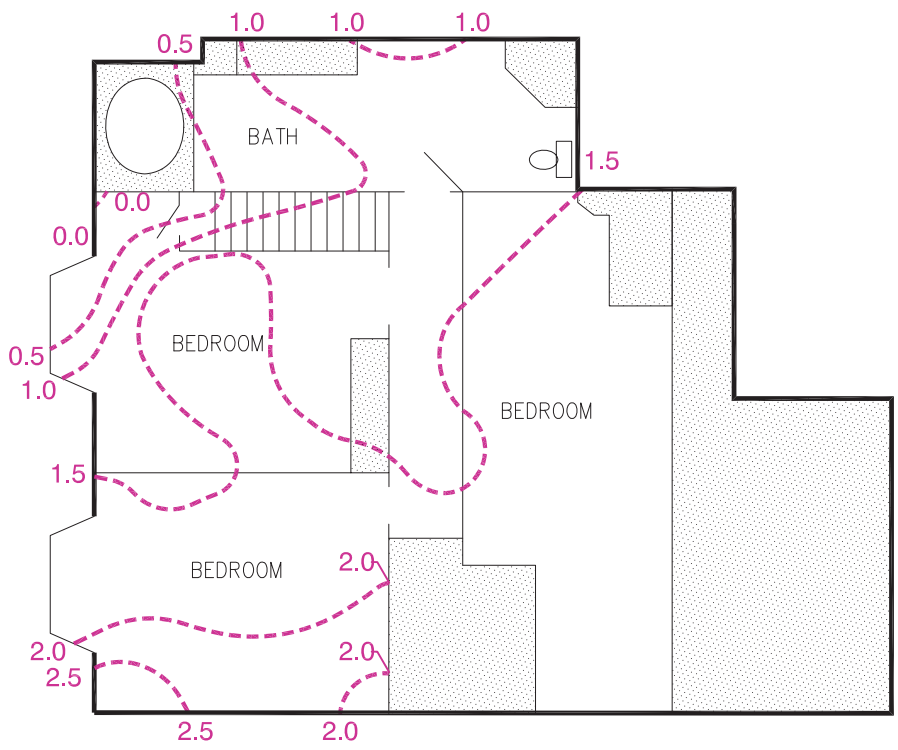
PROJECT NO.

DATE


206739001

11/07

LOS ANGELES, CALIFORNIA



LOWER LEVEL

LEGEND	
--- 2.5 ---	RELATIVE FLOOR ELEVATION IN INCHES
	INACCESSIBLE AREA (CLOSETS, COUNTERS, ETC.)



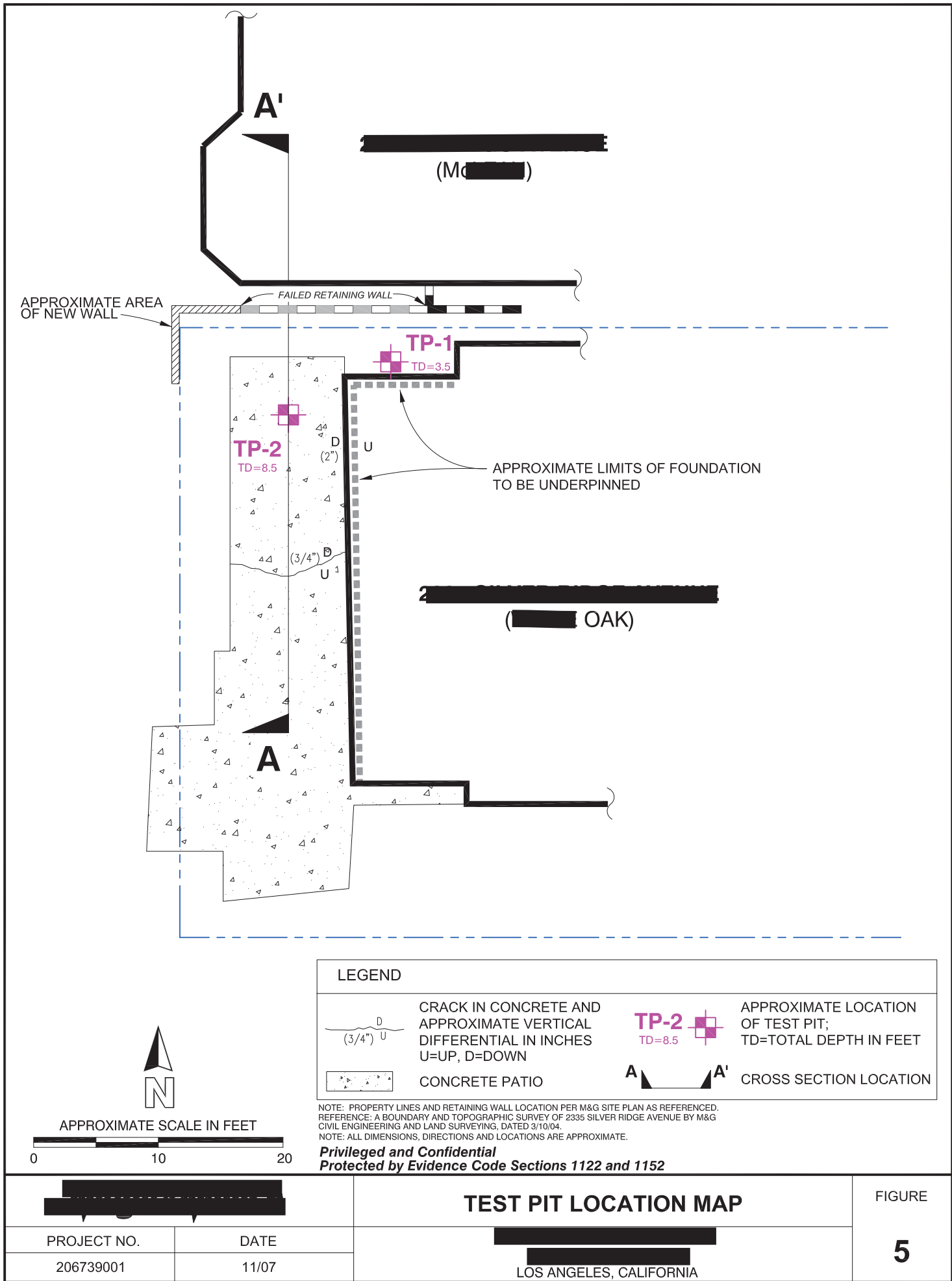
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

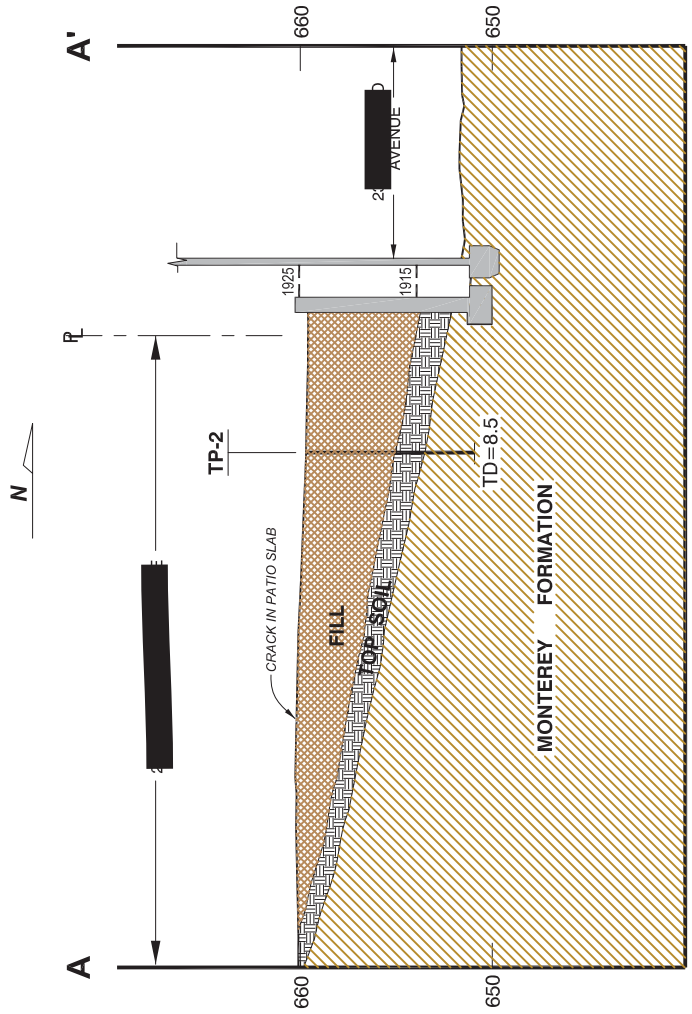
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206739--A7.DWG

206739A4.DWG





1915 - APPROXIMATE YEAR THE WALL WAS
INITIALLY CONSTRUCTED
1925 - APPROXIMATE YEAR WALL WAS EXTENDED
UP TO 2335 SILVER RIDGE AVENUE

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APPROXIMATE SCALE IN FEET



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

FIGURE

GEOLOGIC CROSS SECTION

PROJECT NO.

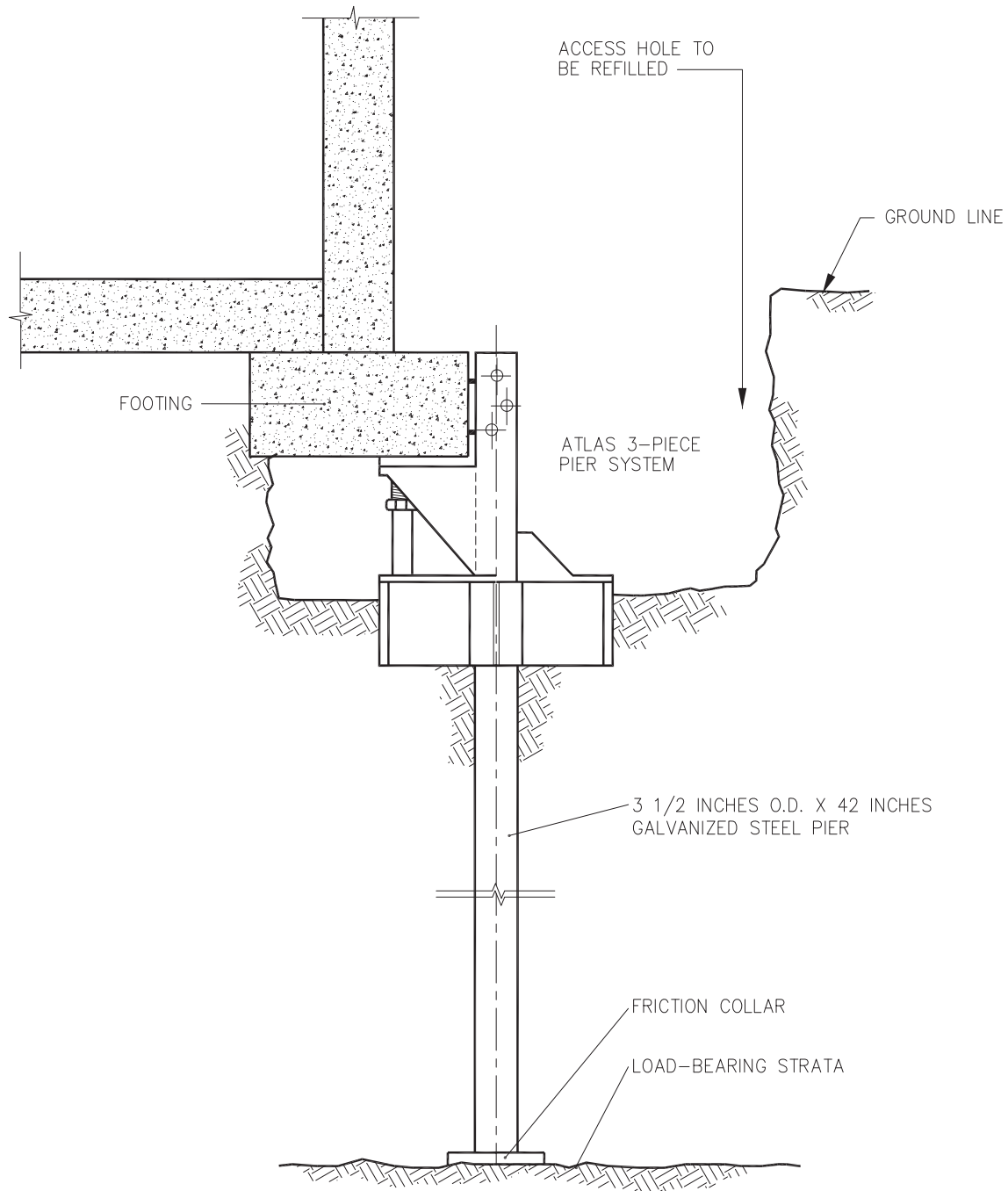
206739001

DATE

11/07

6

LOS ANGELES, CALIFORNIA



NOT TO SCALE

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NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

PIPE PILE DETAIL (ATLAS PIERS)

FIGURE

PROJECT NO.

DATE

206739001

11/07

2
 LOS ANGELES, CALIFORNIA

8

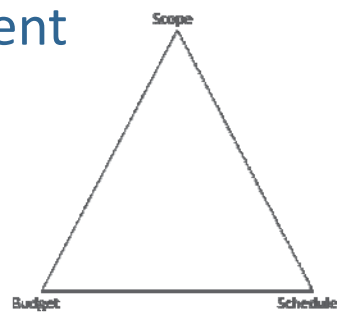
3. SCOPE OF WORK



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Project Management

3. SCOPE OF WORK



Scope	Budget	Actual	Schedule
1. Item 1	\$ XXX	\$ XXX	Plan/Actual
2. Item 2	\$ XXX	\$ XXX	Plan/Actual
3. Item 3	\$ XXX	\$ XXX	Plan/Actual
4. Item 4	\$ XXX	\$ XXX	Plan/Actual
5. Item 5	\$ XXX	\$ XXX	Plan/Actual
6. TOTAL	\$ X,XXX	\$ X,XXX	



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3. SCOPE OF WORK

Scope of Work

Definition of what is being bought and sold.
References to plans, specification, prescriptive specifications, performance specifications, substitutions. Allowances.


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3. SCOPE OF WORK

Specifications – Standard Format

PART 1 GENERAL

- 1.1 SECTION INCLUDES
- 1.2 RELATED SECTIONS
- 1.3 REFERENCES
- 1.4 PERFORMANCE REQUIREMENTS
- 1.5 SUBMITTALS
- 1.6 QUALITY ASSURANCE
- 1.7 DELIVERY, STORAGE, AND HANDLING
- 1.8 PROJECT CONDITIONS

PART 2 PRODUCTS

- 2.1 MANUFACTURERS
- 2.2 PRODUCTS

PART 3 EXECUTION

- 3.1 EXAMINATION
- 3.2 PREPARATION
- 3.3 INSTALLATION
- 3.4 PROTECTION
- 3.5 SCHEDULES


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3. SCOPE OF WORK

Specifications - Example

SECTION 0920 - GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.2 SUMMARY

A. This Section includes the following:

1. Interior gypsum wallboard.
2. Tile backing panels.
3. Non-load-bearing steel framing.

B. Related Sections include the following:

1. Division 5 Section "Cold-Formed Metal Framing" for load-bearing steel framing.
2. Division 6 Section "Rough Carpentry" for wood framing and furring[, and gypsum sheathing applied over wood framing].
3. Division 7 Section "Building Insulation" for insulation and vapor retarders installed in gypsum board assemblies.
4. Division 9 Section "Porcelain Tile" for cementitious backer units installed as substrates for ceramic tile.

1.3 DEFINITIONS

- A. Gypsum Board Terminology: Refer to ASTM C 11 for definitions of terms for gypsum board assemblies not defined in this Section or in other referenced standards.



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Vision for Our Simplified Case Study

Define

We will build a new outhouse approximately 100 feet from an existing rural residence. Not pretentious, but of a quality and esthetic consistent with the existing residence.

The building shall be approximately 4 feet square and 8 feet tall. There shall be a single door and one interior seat. The construction will be wood frame, exterior building walls will be wood siding, and the roof will be sloped with asphalt composition shingles.

Budget

Intend to keep the total project costs at approximately \$5,000.

Schedule

We need to have this new construction completed before the end of this year.

Contract

We intend to construct this project under a traditional Design-Bid-Build scenario, with a construction manager as advisor.

Coordinate

We will have a construction manager as advisor to the owner who stewards the project from beginning to end, coordinating design professionals, soliciting bids, facilitating contract agreements, processing payments, and verifying conformance.

Verify

The construction manager will process payment applications, conduct site visits at pre-defined hold points and conduct a final walk-through with the general contractor.

Detailing Your Scope-of-Work

by Bob Kovacs

Sorry, but that's not in my bid." What contractor doesn't cringe upon hearing those words from a sub?

Picture yourself driving to the site to meet your new plumbing contractor, who's due to start the underground rough-in for the spec home you're building. You pull up to the site, and he and his helpers are leaning against their truck (which is overflowing with PVC) looking annoyed.

"You told me the site was ready," the plumber says. "The excavator hasn't dug the trenches for my piping."

"That wasn't in his bid," you reply.

"Well, it's not in mine, either. Call me when you have the trenches dug," he says as the plumbers pile into the truck to head for another job. You stand there wondering how you're going to pay for the excavation work that you thought you'd already "bought" from the plumber and, more important, how quickly you can get the trenches dug so your schedule doesn't go down the drain.

Or perhaps it happens the other way round. As you arrive at the site to meet the plumber, you notice a rented backhoe and trailer hitched to his truck. His crew is walking along the fresh trenches that the foundation sub dug the day before, wondering if they're in the right location. It seems you forgot to tell him that the foundation sub would be digging and backfilling the plumbing trenches.

Details, Details

A detailed scope-of-work for each trade can prevent such situations, sparing you and your subs all that aggravation. With the use of a computer and word-processing software, developing work scopes can be painless, as much of the information can be boilerplate that gets used repeatedly for every trade.

What's Included

A scope-of-work document contains a detailed description of all the work to be handled by a particular subcontractor on a job. For example, it might include the following:

Provide all labor, material, and equipment to lay out, excavate, and backfill all trenches as required for underground piping work. Include sand bedding and 4-in. sand cover on all plastic piping. All trenches are to be compacted in 8-in. lifts during backfilling operations.

Be sure to specify whether sub A is to supply labor and material or just labor. If material is being supplied by others, specify sub A's responsibility for the material, if any. For example:

Provide all labor to install door hardware (furnished by others), including all latchsets, hinges, wall stops, and kick plates. Upon delivery of material to the site, this subcontractor shall inventory the material and distribute it as required prior to installation. Once material is inventoried, any shortages shall be reported to the general contractor immediately, or the shipment shall be considered complete.

Supplier copy. If a supplier is supplying material only, he should receive a scope-of-work as well, delineating all materials to be included, as well as any delivery requirements. It might say something like:

All material shall be delivered to the site by supplier (costs of delivery to be included in price) and unloaded and stacked by supplier's personnel. Material will be inventoried by the installing contractor upon delivery,

and any discrepancies shall be noted on the delivery ticket.

What's Excluded

Just as important, the scope-of-work must contain detailed descriptions of all work excluded by the subcontractor.

Perhaps the trenching and backfilling in the example above was to be done by the foundation contractor. In that case, his scope-of-work might read:

Provide painted layout for all underground piping runs. Excavation to be completed by others. Trench depth requirements to be reviewed with excavator upon layout. Sand for bedding and 4-in. cover over pipe to be placed at the side of trenches by others, for installation by the plumbing contractor. Backfill to grade and compaction to be performed by foundation contractor.

This sample paragraph clearly delineates where one contractor stops work and the other starts, to avoid misunderstandings and work overlaps.

Other Provisions

In addition to the work to be included and excluded, the scope-of-work document can contain (or reference) other items to make sure that everyone is on the same page once work begins. Some of these items include:

- standard provisions for all subcontractors regarding working hours, insurance requirements, cleanup, site access, billing and payment procedures, change order policies, and so forth
- a reference to the document list, which will list the most current drawings and specifications for the

■ Business

job, ensuring that no one is working from an obsolete plan

- coordination procedures between subs (typically between the framer and the mechanical subs) that outline who takes precedence over whom with regard to duct runs, piping, and so forth
- a copy of the project schedule, to make sure everyone is working with the same start and completion dates
- payment schedules, punchlist and quality control procedures, and time frames for any warranty work that may be necessary

Boilerplate Saves Time

Generally, much of this information stays the same from project to project. Rather than duplicating it for each new job (especially with subs you work with regularly), create a separate boilerplate document that can be referenced in the scope-of-work document. I call mine “Subcontractor Standards”; every sub I work with has a copy. Any modifications to the “Subcontractor Standards” on a particular job can be added into the scope-of-work and a sentence like the following added for clarity:


Where conflicts occur between the “Subcontractor Standards” and this document, this document shall take precedence.

Site cleanup provides a perfect example of how you might use a boilerplate. Typically, your company may supply dumpsters to the site but require subs to carry their own trash to the dumpster (as outlined in your “Subcontractor Standards”). If there is no room for a dumpster on a particular job, however, subs may be required to haul away their own trash daily. In that case, the scope-of-work statement might read as follows:

Due to restrictive site access, on-site dumpsters will not be provided. All subcontractors will be required to remove from the site, on a daily basis, all debris generated by their work. Any debris left on the site will be hauled away at the subcontractor’s expense after 24 hours’ notice to remove such debris.

Signoff

In a perfect world, scopes-of-work would always be prepared before bidding a job. That would allow subs to review what they are to include and exclude in their bids. If the scopes can’t be written in advance, be sure to review them with the subs when you review their bids, to make sure everything is covered. You’ll usually have to adjust the bid amount either to include items that were missed or to delete items that were included when they shouldn’t have been.

Finally, provide a space for both your company representative and the sub to initial each page of the scope-of-work. When you hear, “Sorry, but that’s not in my bid,” it can be very satisfying to pull out a document with the sub’s initials at the bottom of the page, confirming that the item in question is, in fact, in his bid. 

Bob Kovacs was a residential and commercial construction manager for 15 years and now offers training, management, and estimating services to builders through his company, Constructive Solutions. He also moderates the Business Systems forum at jlconline.com.

Addendum C: Scope and Method of Repair

1349 Mallard Court, Carlsbad, CA

Remove and replace double door set, one location (Living Room)

- a. Order 5.0 x 8.0 pre hung door with integral / engineered threshold from approved supplier. Shall be vinyl, or exterior clad unit. No exposed wood. See attached list of approved vendors.
- b. Remove or protect contents of room. Store for reinstallation.
- c. Install protection (Masonite or cardboard) over wood floor.
- d. Install temporary interior partition wall for dust and mold control.
- e. Remove interior baseboard and casing from around door and window.
- f. Remove interior drywall and insulation from around assembly
- g. Remove exterior stucco from around door and window. Take care not to damage surrounding windows.
- h. Remove door set. Take care to not damage alarm wiring.
- i. Remediation to remove bioorganic growth.

Hold Point: Environmental testing and approval before moving forward.

Note: The installation described below is intended to meet or exceed the installation guidelines described in the ASTM Standard E 2112 (www.astm.org) and/or AAMA Installation Masters (www.aamanet.org) training manual & program.

- j. Reframe opening if necessary for rough opening dimensions.
- k. Install sill tray / pan (Jamb sill Guard) below threshold. Seal below pan with polyurethane sealant from approved supplier list.
- l. Install flexible flashing onto rough framing at jambs into sill pan.
- m. Install door in rough opening per manufacturers installation instructions. Install door knobs.
- n. Install sheet metal flashing and flexible flashing above door. Seal as necessary, avoiding excessive sealant and removing squeeze-out before sealant cures.
- o. Apply peel and stick adhesive flashing around door and window in weather board fashion and integrate into existing weather resistant barrier. Seal as necessary, avoiding excessive sealant and removing squeeze-out before sealant cures.
- p. Install approved building paper, and diamond lath around door, exercise care to staple only into wood framing.

Hold Point: Prior to installation of insulation and of exterior plaster and finishes at interior, consultant shall perform water window / wall assembly spray test per ASTM E 1105.

- q. Install three-coat stucco system to exposed lath. Grind edge of exposed stucco and blend in the stucco coats to minimize cracking. Texture final stucco coat to match existing.
- r. Prime all textured surfaces and trim boards with 100% acrylic latex primer. See attached list.
- s. Paint exterior flat surfaces with 100% acrylic latex paint to match existing. See attached list.
- t. Install R-13 insulation in interior stud cavities.
- u. Install ½” drywall wall on interior wall. Tape joints and apply two coats of drywall compound and texture to match.
- v. Install new baseboards and casing to match. Paint to match.
- w. Prime wall surface with sealer. Paint interior wall surface with 100% acrylic latex finish to match. See attached list.
- x. Transition at flooring, sill pan, and door product may require special attention for esthetics.
- y. Reinstall furnishings / contents.

Approved Door Manufacturers

- Anderson
- Millard
- Therma-Tru

Approved Flashing & Exterior Envelope Component Manufacturers

- Sill Trays: Jamsill (www.jamsill.com)
- Sealant: Moistop Sealant by Fortifiber
- Sealant: Schnee-Moorhead 7100
- Building Paper / Weather Resistive Barriers: Fortifiber Jumbo Tex (Grade D), minimum 2-layers
- Flexible Flashing: Moistop by Fortifiber
- Self-Adhering / Self-Sealing Flashing Membrane: Grace Fire & Ice
- Self-Adhering / Self-Sealing Flashing Membrane: Schnee-Moorhead 3300
- Self-Adhering / Self-Sealing Flashing Membrane: Jiffy Seal
- Self-Adhering / Self-Sealing Flashing Membrane: Dupont Tyvek Flex-Wrap

Approved Paint Supplier

- Frazee Paint per developer’s color scheme. Coordinate with Owner for specific information.
- Coordinate with Frazee technical representative for appropriate primers on all applicable materials. Document recommendations and forward to consultant.

4. CONTRACTS

Introduction to Contracts

- Con·trac·tor 1: one that contracts or is party to a contract: as a: one that contracts to perform work or provide supplies b: one that contracts to erect buildings.
- Con·tract 1: to agree upon
- Documented negotiation
- A contract is a binding agreement. It should be used as a communication tool to make sure that all parties understand and agree exactly what is being bought and sold.

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4. CONTRACTS

Introduction to Contracts

- Think like The One Minute Manager: What does good performance look like? What are the rewards for good performance? What are the ramifications for poor performance?
- Operating from a position of strength
- See Standard Contract Forms and Suppliers (PDF)

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4. CONTRACTS

The Big Picture

- A contract is a legally enforceable agreement between two or more parties that creates an obligation to do or not do particular things
- A contract has three parts: Offer, Acceptance and Consideration; for construction, they must be in writing
- Who, What, When, Where, Why, How and How Much
- Failure to Perform Under the Contract: "Breach"

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4. CONTRACTS

Implied Terms

- a. Owner Obligations: Site Access, Timely Review, Timely Access, Not Interfere, Coordinate Consultants, Timely Furnish Owner Equipment, Timely Inspection
- b. Contractor Obligations: Cooperate with Owner, Quality Construction, Work to Conform with Contract Documents, Coordinate Trade Contractors, Field Coordination

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4. CONTRACTS

Payment Terms

- a. Invoice Requirements: Lien Releases, Schedule Updates
- b. Approvals / Certifications
- c. Retention
- d. Final Invoices: O & M Manuals, As-Built Drawings, Insurance Certificates, Written Warranties
- e. Right to Suspend for Non-Payment
- f. Right to Withhold Payments: 150% of Amounts in Dispute

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4. CONTRACTS

Indemnification Provisions

- a. Definition
- b. Purpose: Reassign, consolidate or transfer risks.
- c. Types of Clauses
 - i. Limited: Each party is responsible for their share.
 - ii. Intermediate: One party will pay for all damages if it is partly responsible.
 - iii. Broad Form Indemnity: One party will pay for all damages even if they have not caused any of the damages. Illegal in many states.

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4. CONTRACTS

Contract Components

- Parties
- General Information
- Schedule (Commencement & Completion Dates)
- Contract Sum
- Payments (Progress and Final): A Payment Schedule should be negotiated at the time the contract is signed. Try to never pay more than the value of the work in place. That is, if the project is 50% complete and you have paid 75% of the contract price, then you are in a dangerous position.
- Termination or Suspension Provisions
- List of Contract Documents


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4. CONTRACTS

Contract Components

GENERAL CONDITIONS

A201–2007, General Conditions of the Contract for Construction

The General Conditions are an integral part of the contract for construction. They set forth the rights, responsibilities, and relationships of the owner, contractor, and architect. Though not a party to the contract for construction between owner and contractor, the architect does participate in the preparation of the contract documents and performs certain construction phase duties and responsibilities described in detail in the general conditions. A201 is typically adopted by reference in certain other AIA documents, such as owner-architect agreements, owner-contractor agreements, and contractor-subcontractor agreements. Thus, it is often called the "keystone" document.


<http://www.aia.org/contractdocs/AIAS076742>
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4. CONTRACTS

Prime Contracts

- Contracting Directly with the Owner. A prime construction contract is an agreement between the owner and a contractor
- AIA Forms
- Instructions
- Who is doing what?

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4. CONTRACTS

Subcontracts

- A subcontract is an agreement between a prime contractor and some other contractor who will perform all or a portion of the work covered in the prime contract. Thus, if an owner contracts directly with a subcontractor, like a painter, this is not a subcontract; it is a prime contract. Prime and subcontractors have different rights and responsibilities.
- AGC and other industry standard forms. See [Standard Contract Forms and Suppliers \(PDF\)](#).

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4. CONTRACTS

Change Orders

Change Orders are a natural part of construction and a contingency for them should be built into the budget. Change orders become a part of the construction contract, should always be in writing, and should be negotiated and signed at the time the change occurs, not at the end of the project.

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4. CONTRACTS

Change Orders

Some years ago, Congress tasked the National Research Council to study the issue of cost growth of construction contracts. Conclusions from that study determined that there was no perfect or complete set of specifications and drawings. The reality is that most projects are not really “design-bid-build,” but rather “design-bid-build-figure out the design-build-change the design-build-argue over the design-build...”

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4. CONTRACTS

Change Orders

- What Does the Contract Say?
- Refer to the Scope of Work
- Frequency
- Causes
- Changes in Scope
- Changes in Cost
- Changes in Time
- Authorization
- Accounting for Change Orders
- Disputes
- How To

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4. CONTRACTS

Negotiation

- All Relationships Include Negotiation
- Negotiation is a Fine Art
- Negotiation is Fun
- Strength AND Kindness
- Think Win-Win
- Some Say Think “Win-Win or No Deal”
- There Are a Million Great Resources Available

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4. CONTRACTS

Indemnity (1 of 2)

- Indemnification: (1.) The technical definition of "indemnity" means to make whole again. (2.) An agreement whereby one party agrees to secure another against an anticipated loss or damage.
- An indemnity agreement or indemnification provision in a contract is an agreement in which a person agrees to be responsible for the consequence of some act whether his or someone else's. Essentially it is a contract which shifts liability from one party to another party. Indemnity agreements are extremely common in construction contracts, but are often ignored. Understanding an indemnity agreement is essential in assessing contract risk, becoming properly insured for such risks and responding to any incidents which may occur. (<http://www.jonesobenchain.com/articles/article15.htm>)

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4. CONTRACTS

Indemnity (2 of 2)

- Whether an indemnitee or an indemnitor, it is important to understand who is being indemnified, what the triggering event is for the indemnification provision, and what types of claims are being indemnified against. Indemnification agreements are becoming a hotly litigated provision, and people are looking to them more and more often for protection as we become a more litigious society. It is important to know before entering into a contract what the risks are. Consulting with counsel and with your insurance agent are critical. Of course, whenever possible, always try to transfer your risk to some third party and make sure that they have the financial wherewithal, either themselves and through insurance, to cover the transferred risk. Unfortunately, when it comes to indemnity agreements, ignorance is not bliss.

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4. CONTRACTS

Standard Forms and Contracts

Trade Organization Suppliers

- American Institute of Architects (www.aia.org)
- American Subcontractors Association (www.asonline.com)
- Associated General Contractors of America (www.agc.org)
- Construction Management Association of America (www.cmaanet.org)
- Construction Owners Association of America (www.coaa.org)
- Design-Build Institute of America (www.dbia.org)
- Engineers Joint Contract Documents Committee (www.ejcdc.org)



1997 EDITION

AIA DOCUMENT A101-1997

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a STIPULATED SUM

AGREEMENT made as of the
in the year
(In words, indicate day, month and year)

BETWEEN the Owner:
(Name, address and other information)

and the Contractor:
(Name, address and other information)

The Project is:
(Name and location)

The Architect is:
(Name, address and other information)

The Owner and Contractor agree as follows.

day of

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201-1997, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

This document has been approved and endorsed by The Associated General Contractors of America.



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OWNER-CONTRACTOR
AGREEMENT

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.

(Insert the date of commencement if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)

If, prior to the commencement of the Work, the Owner requires time to file mortgages, mechanic's liens and other security interests, the Owner's time requirement shall be as follows:

3.2 The Contract Time shall be measured from the date of commencement.

3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than _____ days from the date of commencement, or as follows:

(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. Unless stated elsewhere in the Contract Documents, insert any requirements for earlier Substantial Completion of certain portions of the Work.)

, subject to adjustments of this Contract Time as provided in the Contract Documents.

(Insert provisions, if any, for liquidated damages relating to failure to complete on time or for bonus payments for early completion of the Work.)



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ARTICLE 4 CONTRACT SUM

4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be

Dollars (\$ _____),

subject to additions and deductions as provided in the Contract Documents.

4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

(State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

4.3 Unit prices, if any, are as follows:

ARTICLE 5 PAYMENTS

5.1 PROGRESS PAYMENTS

5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

5.1.3 Provided that an Application for Payment is received by the Architect not later than the _____ day of a month, the Owner shall make payment to the Contractor not later than the _____ day of the _____ month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than _____ days after the Architect receives the Application for Payment.

5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.



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5.1.5 Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- 1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of _____ percent (_____ %). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Subparagraph 7.3.8 of AIA Document A201-1997;
- 2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of _____ percent (_____ %);
- 3 Subtract the aggregate of previous payments made by the Owner; and
- 4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Paragraph 9.5 of AIA Document A201-1997.

5.1.7 The progress payment amount determined in accordance with Subparagraph 5.1.6 shall be further modified under the following circumstances:

- 1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and (*Subparagraph 9.8.5 of AIA Document A201-1997 requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.*)
- 2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Subparagraph 9.10.3 of AIA Document A201-1997.

5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Clauses 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

5.2 FINAL PAYMENT

5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

- 1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Subparagraph 12.2.2 of AIA Document A201-1997, and to satisfy other requirements, if any, which extend beyond final payment; and
- 2 a final Certificate for Payment has been issued by the Architect.



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5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

ARTICLE 6 TERMINATION OR SUSPENSION

6.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201-1997.

6.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201-1997.

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 Where reference is made in this Agreement to a provision of AIA Document A201-1997 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

7.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Contractor's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Legal advice should be obtained with respect to deletions or modifications, and also regarding requirements such as written disclosures or waivers.)

7.3 The Owner's representative is:

(Name, address and other information)

7.4 The Contractor's representative is:

(Name, address and other information)

7.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days' written notice to the other party.

7.6 Other provisions:



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ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

8.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

8.1.1 The Agreement is this executed 1997 edition of the Standard Form of Agreement Between Owner and Contractor, AIA Document A101-1997.

8.1.2 The General Conditions are the 1997 edition of the General Conditions of the Contract for Construction, AIA Document A201-1997.

8.1.3 The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated _____, and are as follows:

Document	Title	Pages
----------	-------	-------

8.1.4 The Specifications are those contained in the Project Manual dated as in Subparagraph 8.1.3, and are as follows:
(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

Section	Title	Pages
---------	-------	-------

8.1.5 The Drawings are as follows, and are dated _____ unless a different date is shown below:
(Either list the Drawings here or refer to an exhibit attached to this Agreement.)

Number	Title	Date
--------	-------	------



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8.1.6 The Addenda, if any, are as follows:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

8.1.7 Other documents, if any, forming part of the Contract Documents are as follows:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201-1997 provides that bidding requirements such as advertisement or invitation to bid, Instructions to Bidders, sample forms and the Contractor's bid are not part of the Contract Documents unless enumerated in this Agreement. They should be listed here only if intended to be part of the Contract Documents.)

This Agreement is entered into as of the day and year first written above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the Architect for use in the administration of the Contract, and the remainder to the Owner.

OWNER (Signature)

CONTRACTOR (Signature)

(Printed name and title)

(Printed name and title)

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AIA DOCUMENT A101-1997

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a STIPULATED SUM

GENERAL INFORMATION

PURPOSE. AIA Document A101-1997 is intended for use on construction projects where the basis of payment is a stipulated sum (fixed price). It is suitable for any arrangement between the Owner and Contractor where the cost has been set in advance, either by bidding or by negotiation.

RELATED DOCUMENTS. This document has been prepared for use in conjunction with AIA Document A201-1997, General Conditions of the Contract for Construction, which is adopted into A101-1997 by a specific reference. This integrated set of documents is suitable for most projects; however, for projects of limited scope, use of AIA Document A107-1997 may be considered.

The A101-1997 document is used as one part of the Contract Documents that memorialize the Contract for Construction between the Owner and the Contractor. The other Contract Documents are:

- General Conditions (i.e., A201-1997)
- Supplementary Conditions
- Drawings
- Specifications
- Modifications

Although the AIA does not produce standard documents for Supplementary Conditions, Drawings or Specifications, a variety of model and guide documents are available, including AIA's MASTERSPEC and AIA Document A511, Guide for Supplementary Conditions.

AIA Document A101-1997 is published in conjunction with the following related documents:

- A201-1997, General Conditions of the Contract for Construction
- A401-1997, Standard Form of Agreement Between Contractor and Subcontractor
- A511, Guide for Supplementary Conditions
- A701-1997, Instructions to Bidders
- B141-1997, Standard Form of Agreement Between Owner and Architect
- B151-1997, Abbreviated Standard Form of Agreement Between Owner and Architect
- C141-1997, Standard Form of Agreement Between Architect and Consultant
- C142-1997, Abbreviated Standard Form of Agreement Between Architect and Consultant

DISPUTE RESOLUTION—MEDIATION AND ARBITRATION. Through its adoption by reference of AIA Document A201-1997, this document contains provisions for mediation and arbitration of claims and disputes. Mediation is a non-binding process, but is mandatory under the terms of this agreement. Arbitration is mandatory under the terms of this agreement and binding in most states and under the Federal Arbitration Act. In a minority of states, arbitration provisions relating to future disputes are not enforceable but the parties may agree to arbitrate after the dispute arises. Even in those states, under certain circumstances (for example, in a transaction involving interstate commerce), arbitration provisions may be enforceable under the Federal Arbitration Act.

The AIA does not administer dispute resolution processes. To submit disputes to mediation or arbitration or to obtain copies of the applicable mediation or arbitration rules, write to the American Arbitration Association or call (800) 778-7879. The American Arbitration Association may also be contacted at <http://www.adr.org>.

WHY USE AIA CONTRACT DOCUMENTS? AIA contract documents are the product of a consensus-building process aimed at balancing the interests of all parties on the construction project. The documents reflect actual industry practices, not theory. They are state-of-the-art legal documents, regularly revised to keep up with changes in law and the industry—yet they are written, as far as possible, in everyday language. Finally, AIA contract documents are flexible: they are intended to be modified to fit individual projects, but in such a way that modifications are easily distinguished from the original, printed language.



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INSTRUCTIONS

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For further information on AIA's approach to drafting contract documents, see AIA Document M120, Document Drafting Principles.

USE OF NON-AIA FORMS. If a combination of AIA documents and non-AIA documents is to be used, particular care must be taken to achieve consistency of language and intent among documents.

LETTER FORMS OF AGREEMENT. Letter forms of agreement are generally discouraged by the AIA, as is the performance of a part or the whole of the Work on the basis of oral agreements or understandings. The standard AIA agreement forms have been developed through more than 100 years of experience and have been tested repeatedly in the courts. In addition, the standard forms have been carefully coordinated with other AIA documents.

STANDARD FORMS. Most AIA documents published since 1906 have contained in their titles the words "Standard Form." The term "standard" is not meant to imply that a uniform set of contractual requirements is mandatory for AIA members or others in the construction industry. Rather, the AIA standard documents are intended to be used as fair and balanced baselines from which the parties can negotiate their bargains. As such, the documents have won general acceptance within the construction industry and have been uniformly interpreted by the courts. Within an industry spanning 50 states—each free to adopt different, and perhaps contradictory, laws affecting that industry—AIA documents form the basis for a generally consistent body of construction law.

USE OF CURRENT DOCUMENTS. Prior to using any AIA document, the user should consult an AIA component chapter or a current AIA Documents Price List to determine the current edition of each document.

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A101-1997 may not be reproduced for Project Manuals. Rather, if a user wishes to include it as an example in a Project Manual, the normal practice is to purchase a quantity of the original forms and bind one in each of the Project Manuals. Modifications may be accomplished through the use of separate Supplementary Conditions.

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CHANGES FROM THE PREVIOUS EDITION

A101-1997 revises the 1987 edition of A101 to reflect changes made in AIA Document A201-1997. It incorporates alterations proposed by architects, contractors, owners and professional consultants. The following are some of the significant changes made to the contents from the 1987 edition of A101:

THROUGHOUT: References in A101-1997 to the General Conditions refer specifically to A201-1997.

ARTICLE 2: The blank for exceptions to the Contractor's scope of Work has been eliminated.

ARTICLE 3: New emphasis is placed on the need to coordinate the date of commencement with the date of Substantial Completion. Space is also provided for bonus payments for early completion.

ARTICLE 5: Both progress payments and final payment are now covered in this article, entitled Payments. Payment of amounts not in dispute under Construction Change Directives is mandatory, as is release of retainage on completed Work at Substantial Completion. Advance payment to suppliers for materials and equipment not yet stored at the site is only permitted with the Owner's approval.

ARTICLE 6: Space is provided for identification of the Owner's and Contractor's representatives. Ten days' notice is required before a representative is changed.



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USING THE A101-1997 FORM

Prospective bidders should be informed of any additional provisions which may be included in A101-1997, such as for liquidated damages or for stored materials, by an appropriate notice in the Bidding Documents and the provisions for Supplementary Conditions.

MODIFICATIONS. Users are encouraged to consult their legal and insurance advisers before completing an AIA document. Particularly with respect to contractor's licensing laws, duties imposed by building codes, interest charges, arbitration and indemnification, this document may require modification with the assistance of legal counsel to fully comply with state or local laws regulating these matters.

Generally, necessary modifications may be accomplished by writing or typing the appropriate terms in the blank spaces provided on the form or by Supplementary Conditions, or by amendments included in the Project Manual and referenced in this document. The form may also be modified by striking out language directly on the original form. Care must be taken in making these kinds of deletions, however. Under NO circumstances should printed language be struck out in such a way as to render it illegible (as, for example, with blocking tape, correction fluid or X's that completely obscure the text). This may raise suspicions of concealment or suggest that the completed and signed document has been tampered with. Handwritten changes should be initialed by both parties to the contract.

It is definitely not recommended practice to retype the standard document. Besides being outside the limited license for reproduction granted under these Instructions, retyping can introduce typographical errors and cloud the legal interpretation given to a standard clause when blended with modifications, thereby eliminating one of the principal advantages of standard form documents. By merely reviewing the modifications to be made to a standard form document, parties familiar with that document can quickly understand the essence of the proposed relationship. Commercial exchanges are greatly simplified and expedited, good-faith dealing is encouraged, and otherwise latent clauses are exposed for scrutiny. In this way, contracting parties can more confidently and fairly measure their risks.

COVER PAGE

Date: The date represents the date the Agreement becomes effective. It may be the date an original oral agreement was reached, the date the Agreement was originally submitted to the Owner, the date authorizing action was taken or the date of actual execution. It will be the date from which the Contract Time is measured unless a different date is inserted under Paragraph 3.1.

Parties: Parties to the Agreement should be identified using the full address and legal name under which this Agreement is to be executed, including a designation of the legal status of both parties (sole proprietorship, partnership, joint venture, unincorporated association, limited partnership or corporation [general, limited liability, closed or professional], etc.). Where appropriate, a copy of the resolution authorizing the individual to act on behalf of the firm or entity should be attached. Other information may be added, such as telephone numbers and electronic addresses.

Project: The proposed Project should be described in sufficient detail to identify: (1) the official name or title of the facility; (2) the location of the site; (3) the proposed building usage; and (4) the size, capacity or scope of the Project.

Architect: As in the other Contract Documents, the Architect's full legal or corporate title should be used.

ARTICLE 2—THE WORK OF THIS CONTRACT

If portions of the Work are to be performed by persons or entities other than the Contractor, these should be indicated in the Supplementary Conditions.

ARTICLE 3—DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

The following items should be included as appropriate:

PARAGRAPH 3.1 The date of commencement of the Work should be inserted if it is different from the date of the Agreement. It should not be earlier than the date of execution (signing) of the Agreement. After the first sentence, enter either the specific date of commencement of the Work, or if a notice to proceed is to be used, enter the sentence, "The date of commencement shall be stipulated by the notice to proceed." When time of performance is to be strictly enforced, the statement of starting time should be carefully weighed.

PARAGRAPH 3.3 The time within which Substantial Completion of the Work is to be achieved may be expressed as a number of days (preferably calendar days) or as a specified date. If a specified date is used and the date of commencement is to be given in a notice to proceed, these dates must be carefully coordinated to allow sufficient time for completion of the Work.

Any requirements for earlier Substantial Completion of portions of the Work should be entered here if not specified elsewhere in the Contract Documents.



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Optionally, insert any provisions for liquidated damages relating to failure to complete on time, or for bonus payments for early completion. Liquidated damages are not a penalty to be inflicted on the Contractor, but must bear an actual and reasonably estimable relationship to the Owner's loss if construction is not completed on time. There is little or no legal precedent to support the proposition of linking a bonus with a penalty. If liquidated damages are to be assessed because delayed construction will result in actual loss to the Owner, the amount of damages due for each day lost should be entered in the Supplementary Conditions or the Agreement. Factors such as confidentiality or the need to inform subcontractors about the amount of liquidated damages will help determine the placement of such language.

If provision for liquidated damages is included, it should be carefully drafted by the Owner's attorney. Such a provision may be based on the following sample language:

"The Contractor and the Contractor's surety, if any, shall be liable for and shall pay the Owner the sums hereinafter stipulated as liquidated damages for each calendar day of delay until the Work is substantially complete: Dollars (\$)."

For further information on liquidated damages, penalties and bonus provisions, see AIA Document A511, Guide for Supplementary Conditions.

ARTICLE 4—CONTRACT SUM

PARAGRAPH 4.1 Enter the Contract Sum payable to the Contractor.

PARAGRAPH 4.2 Identify any alternates described in the Contract Documents and accepted by the Owner. If decisions on alternates are to be made subsequent to execution of A101-1997, attach a schedule showing the amount of each alternate and the date it expires.

PARAGRAPH 4.3 Enter any unit prices, cash allowances or cash contingency allowances.

If unit prices are not covered in greater detail elsewhere in the Contract Documents, the following provision for unit prices is suggested:

"The unit prices listed below shall determine the value of extra Work or changes in the Work, as applicable. They shall be considered complete and shall include all material and equipment, labor, installation costs, overhead and profit. Unit prices shall be used uniformly for additions or deductions."

Specific allowances for overhead and profit on Change Orders may be included under this paragraph to forestall disputes over future Change Order costs.

ARTICLE 5—PAYMENTS

SUBPARAGRAPH 5.1.2 Insert the time period covered by each Application for Payment if it differs from the one given.

SUBPARAGRAPH 5.1.3 Insert the time schedule for presenting Applications for Payment, and indicate due dates for making progress payments.

The last day upon which Work may be included in an Application should normally be no less than 14 days prior to the payment date, in consideration of the 7 days required for the Architect's evaluation of an Application and issuance of a Certificate for Payment and the time subsequently accorded the Owner to make Payment in Article 9 of A201. The Contractor may prefer a few additional days to prepare the Application.

Due dates for payment should be acceptable to both the Owner and Contractor. They should allow sufficient time for the Contractor to prepare an Application for Payment, for the Architect to certify payment, and for the Owner to make payment. They should also be in accordance with time limits established by this Article and Article 9 of A201-1997.

CLAUSE 5.1.6.1 Indicate the percent retainage, if any, to be withheld when computing the amount of each progress payment.

The Owner frequently pays the Contractor the bulk of the earned sum when payments fall due, retaining a percentage to ensure faithful performance. These percentages may vary with circumstances and localities. The AIA endorses the practice of reducing retainage as rapidly as possible, consistent with the continued protection of all affected parties. See AIA Document A511, Guide for Supplementary Conditions, for a complete discussion.

CLAUSE 5.1.6.2 Insert any additional retainage to be withheld from that portion of the Contract Sum allocable to materials and equipment stored at the site.

Payment for materials stored off the site should be provided for in a specific agreement and enumerated in Paragraph 7.6. Provisions regarding transportation to the site and insurance protecting the Owner's interests should be included.

SUBPARAGRAPH 5.1.8 Describe any arrangements to reduce or limit retainages indicated in Clauses 5.1.6.1 and 5.1.6.2, if not explained elsewhere in the Contract Documents.

A provision for reducing retainage should provide that the reduction will be made only if the Architect judges that the Work is progressing satisfactorily. If the Contractor has furnished a bond, demonstration of the surety's consent to reduction in or partial release of retainage must be provided before such reduction is effected. Use of AIA Document G707A is recommended.



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SUBPARAGRAPH 5.2.2 Insert the date by which Owner shall make final payment, if it differs from the one stated.

When final payment is requested, the Architect should ascertain that all claims have been settled or should define those which remain unsettled. The Architect should obtain the Contractor's certification required by Article 9 of A201-1997 and must determine that, to the best of the Architect's knowledge and belief and according to the Architect's final inspection, the requirements of the Contract have been fulfilled.

ARTICLE 7—MISCELLANEOUS PROVISIONS

PARAGRAPH 7.2 Enter any agreed-upon interest rate for overdue payments.

PARAGRAPH 7.3 Identify the Owner's representative and indicate how that person may be contacted.

PARAGRAPH 7.4 Identify the Contractor's representative and indicate how that person may be contacted.

PARAGRAPH 7.6 Insert other provisions here.

ARTICLE 8—ENUMERATION OF CONTRACT DOCUMENTS

A detailed enumeration of all Contract Documents must be made in this article.

EXECUTION OF THE AGREEMENT.

The Agreement should be executed in not less than triplicate by the Owner and the Contractor. The persons executing the Agreement should indicate the capacity in which they are acting (i.e., president, secretary, partner, etc.) and the authority under which they are executing the Agreement. Where appropriate, a copy of the resolution authorizing the individual to act on behalf of the firm or entity should be attached.

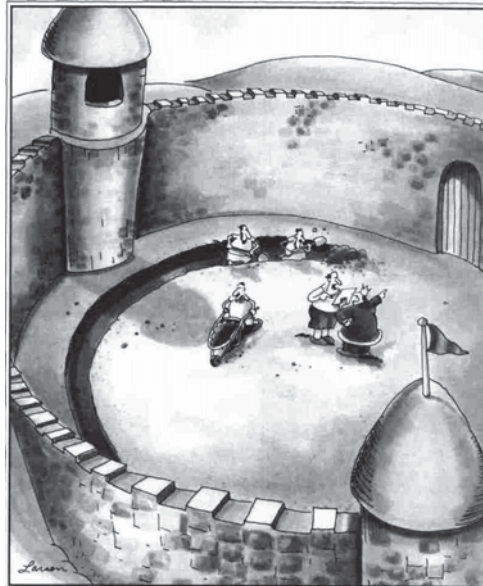


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5. RISKS

Suddenly, a heated exchange took place between the king and the moat contractor.



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The ABC's of Risk Management

5. RISKS

- Avoid Potentially Dangerous Situations
- Be really good at the work you do
- C.Y.A. (Cover Your Assets)



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5. RISKS

Examples of Risks

- Defects
- Accidents/Safety
- Mold
- Fire
- Acts of God/Nature
- Soils
- Managing Quality
- Negligence
- Strict Liability
- Right to Repair
- Budget

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5. RISKS

Risk Types

- Speculative Risks: Entrepreneurship Risks That Offer Rewards Or Losses
- Pure Risks: Typical Losses Like Fires & Floods. Always a loss.
- Direct: Fire, Key Employees, Etc.
- Indirect: Can be larger than direct risks

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5. RISKS

What is Risk Management?

Mechanism by which risks and uncertainties that threaten success are identified and dealt with.

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5. RISKS

Risk Management Strategies

- To Retain or Not to Retain - Transfer of Risk
 - Identify Risks & Uncertainties
 - Deal with Risks Through Retention or Transfer
 - Risk Avoidance
 - Risk Reduction
 - Risk Assumption (Indemnity granted to others)
 - Risk Transfer (Insurance or Indemnity from others)

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5. RISKS

This is a bad risk management strategy.

It also happens to be the strategy most commonly employed.



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Risk Identification

RISK MANAGEMENT CHECKLIST

5. RISKS

[illegible]

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5. RISKS

Risk Mitigation

- Risk Avoidance
- Risk Reduction
- Risk Sharing or Transfer (see next section)
- Risk Retention
- Risk Allocation
- Identify each risk category and deal with them one by one
- Tools: Contracts, Insurance, Pre-Qualification

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5. RISKS

Allocating Risk

- Share or Transfer?
- Fairness? (Can vs. Should)
- Who are you in the process
- Allocation Matrix

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Risk Management Check List

7/13/2010

Risks by DBSKCV Method

Define	
Incomplete design	Sufficiency of drawings & specifications
Inadequate site investigation	Accuracy & conformity of submittals & shop drawings
Appropriateness of specifications	Review & approval of submittals & shop drawings
Product defect	Provision of professional design services for project
Comparison of design w/ Owner & field info	Accurate & timely surveys, environmental reports, etc.
Known errors in drawings & specifications	Easements, approvals, building permit

Budget	
Uncertainty over the source & availability of materials	Workers compensation
Resource availability	Material costs
Inflation	Subcontractor costs
Availability & fluctuation in foreign exchange	Permits, licenses, taxes pertaining to work
Repatriation of funds	Evidence of project financing
Local taxes	

Schedule	
Time of performance	Delays: Caused by Owner
Schedule of the work: Creating, updating	Delays: Caused by Contractor
Schedule of the work: Approval	Delays: Beyond control of parties - weather, acts of God, gov. acts

(K) Contract	
Insurance	Indemnity: Personal injury & property damage
Contract disputes	Procure insurance: Workers compensation, commercial general liability
Subcontractor walks off	Procure insurance: Property, business income
Indemnity	Patent & copyright infringement
Confidentiality of information	Cost of dispute resolution
Changes in the work	

Coordinate	
Deliverables	
Availability of sufficient transportation facilities	Provision of skilled labor
Uncertain productivity of resources	Owner-furnished materials: delivery, quality & installation
Weather & seasonal implications	Safety precautions & programs
Industrial relations problems	Hazardous materials discovered at site
Building performance problem	Hazardous materials brought to the site
Unforeseen site/geotechnical conditions	Concealed/unknown site conditions
Non-injury accidents (property damage)	Cutting, fitting & patching of the work
Car accident	Damage/loss from separate contractors
Drunk employee	Consequential damages
Coordination & supervision of Contractor's work; construction means & methods	Suspension of the work: Owner's convenience
Coordination of work of separate contractors/concurrent work	Termination: Owner's convenience
Defects in work of separate contractors	Termination: Contractor default
Acts & omissions/competence of Subcontractors	Termination: Owner default

Verify	
Deliverables	
Delay in payment	Tests & inspections: Expenses
Mold	Warranty regarding work
Construction defects	Correction of work within one year
Non-payment	Maintenance of records (shop drawings, original as-builts, change orders)
Reporting defects in work of separate contractors	Payment/payment delay
Workmanship	Removal of liens
Tests & inspections: Scheduling	

6. INSURANCE



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6. INSURANCE

Types of Insurance - Summary

1. Workers Compensation
2. Commercial General Liability
 - Coverage: Premises / Operations, Completed Operations
 - Exclusions: Mold, Work Product ("Business Risk"), Types of Work
3. Builder's Risk
4. Umbrella Liability Coverage
5. Errors & Omissions
6. Wrap-Ups / Owner Controlled Insurance Programs
7. Bonds



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6. INSURANCE

Types of Insurance

Workers Compensation

- Insurance that covers medical and rehabilitation costs and lost wages for employees injured at work; required by law in all states. (Entrepreneur.com)

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6. INSURANCE

Types of Insurance

Commercial General Liability

- Coverage
 - Premises / Operations
 - Property Damage
- Common Exclusions
 - Completed Operations
 - Mold
 - Work Product ("Business Risk")
 - Types of Work
- Certificate of Insurance
- Additional Insured
- Endorsements: ISO 2010
- Defense Costs / Burning Limits

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6. INSURANCE

Types of Insurance

Builder's Risk

Builder's Risk is a form of property insurance for projects during the course of construction. Coverage generally includes theft and vandalism, accidental loss, and damage or destruction of property. The policy is usually purchased by the owner, and the contractor can be named as additional insured. It does not cover contractor equipment or tools. The policies are limited to the duration of construction. Optional coverage might include indirect costs like financial losses, interest expense, legal fees, or delay costs like loss of rents.

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6. INSURANCE

Types of Insurance

Umbrella Liability Coverage

Umbrella coverage is a form of supplemental insurance. It protects the insured in the event that a claim exceeds the amount covered by their primary insurance policies or for specific claims not covered in their primary policy.

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6. INSURANCE

Types of Insurance

Errors & Omissions / Professional Liability

Professional Liability Insurance (Errors and Omissions Insurance) protects against loss from a claim of alleged negligent acts, errors or omissions in the performance of professional services.

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6. INSURANCE

Types of Insurance

Wrap-Ups/Owner Controlled Insurance Programs

An Owner Controlled Insurance Program (OCIP) will cover the owner, contractor and subcontractors. An OCIP also may include design professionals. The coverage can include general liability (CGL), builder's risk, worker's compensation, design errors and omissions as well as excess, umbrella and other special coverages.

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6. INSURANCE

Self Insurance or No Insurance

- Evaluation
- Option Review

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6. INSURANCE

Definitions and Application

- Additional Insured: A person other than the original policy purchaser or the one named in the contract, who is also protected under the insurance contract.
- Indemnification: (1.) The technical definition of "indemnity" means to make whole again. (2.) An agreement whereby one party agrees to secure another against an anticipated loss or damage.
- Subrogation: An insurance carrier may choose to take action to recover the amount of a claim paid to a covered insured if the loss was caused by a third party.

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Comparison of:

AIA Document A201 (1997 Edition) General Conditions
of the Contract for Construction

AGC Document 200 (2000 Edition) Standard Form of Agreement and
General Conditions Between the Owner and Contractor (Lump Sum)

EJCDC Document C-700 (2002 Edition) Standard General Conditions of
the Construction Contract

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Comparison of AIA Document A201 (1997 Edition) General Conditions of the Contract for Construction with AGC Document 200 (2000 Edition) Standard Form of Agreement and General Conditions Between the Owner and Contractor (Lump Sum) and EJCDC Document C-700 (2002 Edition) Standard General Conditions of the Construction Contract

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Architect's Role	
The architect's role in administration of the contract during construction, until final payment is due, <u>is outlined in great detail</u> . 4.1, 4.2	The architect/engineer is identified by name in the contract section. However, <u>the general conditions omit mention of the A/E except to say that the owner may direct that various items be sent by the contractor to the A/E in lieu of the owner.</u> 2.3.2, 3.14.1, 5.2.1, 6.2.1, 9.1, 9.2.1, 9.6.1, 10.1	<u>The role of the engineer as the owner's representative during construction (including basic duties and limitations) is shown in great detail</u> Art. 9
	Confidentiality	
Subject <u>not addressed</u> , although reuse of architect's drawings, specifications or other documents is prohibited without written consent. 1.6.1	<u>Contractor shall not disclose to third parties</u> , except as necessary to subs and suppliers, owner's confidential information, know-how, discoveries and the like. <u>Owner shall treat as confidential information about contractor's estimating system or cost data.</u> 3.21	Subject <u>not addressed</u> , although reuse of any engineer's drawings, specifications or other documents is prohibited without written consent of the owner and engineer. 3.05
	Consequential Damages	
<u>The owner and contractor mutually waive consequential damage claims against the other</u> , including losses due to termination. <u>Liquidated direct damages are not precluded.</u> 4.3.10	<u>The owner and contractor waive claims for consequential damages against one another. Liquidated damages, when related to direct damages only, are not precluded.</u> 10.2	<u>The owner waives all rights against the contractor, subcontractors and engineer for consequential losses beyond direct physical loss to owner's property. There is no similar contractor waiver of consequential damage claims. Liquidated damages are not addressed.</u> 5.07 (B)
	Contract Documents	
Contract includes owner-contractor agreement, general and supplementary conditions, drawings, specifications and addenda issued prior to contract execution plus later written modifications. <u>Shop drawings, product data and samples are not a part of the contract.</u> 1.1.1	<u>Contract includes</u> AGC 200 (2000), <u>drawings</u> , specifications and addenda issued prior to contract execution, plus <u>approved submittals</u> , owner supplied <u>work site information</u> and modifications issued after contract execution. 2.3.4	<u>Contract Documents include</u> all items so designated in the owner-contractor agreement. <u>Only printed or hard copy items qualify. Approved shop drawings, submittals and information about subsurface and physical conditions are not contract documents.</u> 101 (A) 12

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Contract Documents Intent Scope of Work	
Performance by contractor is <u>required</u> only to the extent consistent with the contract documents and reasonably inferable from them <u>to produce the indicated results.</u> 1.2.1	Contractor to provide labor, materials, equipment and services in full accord with and reasonably inferable from the contract documents <u>to produce the indicated results.</u> 3.1.1	Contractor to provide a <u>functionally complete project (or part thereof)</u> including material, labor, etc. reasonably <u>inferred from the contract documents or prevailing practice to produce the intended results.</u> 3.01 (B)
	Contract Terms - Precedence	
<u>No precedence among the contract documents is stated</u> since AIA prefers to leave it to the law and to the custom that <u>specific terms ordinarily take precedence over more generalized ones.</u>	In case of conflicting terms, <u>an order of document precedence is established</u> to determine which provision applies. <u>However, the most specific and current shall control regardless of the stated order of priority. Specifications govern over drawings.</u> 13.8, 14.2.2	Unless the parties agree otherwise, <u>the terms of the contract documents take precedence</u> over standards, specifications and codes not incorporated in the contract and any legal references not representing a violation of law. 303 (3) B-1
	Contractor's Fee	
<u>Subject not addressed</u>	<u>Various expenses are defined as being a part of contractor's fee – even though the form is designed for use on lump sum contracts.</u> 2.3.9	<u>Contractors fee shall be as stated in the contract for cost-plus work. More specific fees are outlined in 12.01 (C) 11.01 (C), 12.01 (C)</u>
	Contractor's Employees	
Contractor is required to enforce strict discipline and not hire unfit or unskilled persons. Superintendents are to be competent 3.4.3, 3.9.1	Contractor to enforce safety procedures, strict discipline and good order. <u>If owner determines that a contractor's employee is unfit or unskilled, contractor must reassign the individual.</u> 3.4.3	Contractor to provide competent, suitably qualified personnel and also maintain good order and discipline at the job site. 6.02 (A)
	Cost-Plus Billing	
Allows for billing based on the <u>cost</u> of labor, insurance, fringe benefits, material, rental costs bond premiums, etc., <u>plus a reasonable allowance for overhead and profit.</u> 7.3.6	If the owner and contractor are unable to agree quickly to adjustments in price, <u>contractor is to be paid 50% of the estimated costs to perform the Work.</u> 8.2.2	Allows for billing incremental <u>cost</u> of labor, material, etc. <u>plus a mark-up of 15% for overhead and profit</u> , except <u>subcontracted work</u> where contractor's mark-up is 5%. 12.01 (C) 2 (c)
	Defined Terms	
Unless the parties agree otherwise, <u>words and phrases used in the contract documents shall be construed as having their recognized meanings. Specific words and phrases are defined throughout A201 and capitalized thereafter.</u> 1.2.3, 1.3.1	<u>Provides a section containing definitions for 20 words and phrases used as defined terms throughout the AGC 200. Any terms having well-known technical or trade meanings will ordinarily be interpreted per those meanings.</u> 2.3	<u>Provides a separate section showing the meaning of more than 50 words and phrases that are capitalized when used as defined terms throughout EJCDC C-700.</u> 1.01

AIAA201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Delays/Time Extensions	
If the contractor is delayed for reasons beyond its control, the contract time shall be extended by such reasonable period as the architect may determine. Neither the contractor nor owner is precluded from recovery of damages for delay. 8.3.1, 8.3.3	If the contractor is delayed by any cause beyond its reasonable control, contractor is entitled to a time extension and equitable adjustment in price. In some instances, contractor's price increase is limited to its actual costs without fee. To the extent that owner directed Work sequence changes increase contractor's time and costs, these are to be equitably adjusted. 6.3.1, 6.3.2, 6.2.2	For time lost due to delays beyond the Contractor's control, the contract time will be extended, provided a claim is filed promptly and approved by the owner. For owner caused delays, disruptions or interference, contractor is entitled to an equitable adjustment in price as well. 12.03 (A), 12.03 (B)
	Design Delegation	
Owners and architects are entitled to rely on the accuracy and completeness of certifications by contractor-hired designers only if all performance and design criteria are furnished to the contractor and its designer by the owner or architect. Such delegated services must be required by the contract and not be in violation of law. 3.12.10	If professional services are required of the contractor, the owner must indicate all performance and design criteria to be satisfied. The owner and A/E shall be entitled to rely on the adequacy, accuracy and completeness of such services. Any such services shall not be in violation of law. 3.15	A new section mirrors similar provisions in A201 and AGC 200 in that delegated design services must be required by contract and not in violation of law. The owner and engineer must specify all performance and design criteria such services must satisfy for them to rely on the adequacy, accuracy and completeness of contractor designed services. 6.21
	Dispute Resolution	
<u>Claims</u> not resolved by the architect are subject first to mediation and, if still not resolved, to arbitration in accordance with the construction industry rules of the American Arbitration Association. <u>Disputes between the contractor and entities other than the owner, such as contractor-subcontractor disputes, are not decided by the architect.</u> 4.5, 4.6, 4.4.1	<u>The parties agree to endeavor settling disputes first by direct discussions.</u> Unresolved disputes then become subject to mediation under American Arbitration Association rules. <u>If still not settled, the parties must use the method selected from options in Exhibit 1 (Dispute Review Board, Advisory Arbitration, Mini Trial, Binding Arbitration or Litigation).</u> Contractor's lien rights are not limited by any dispute resolution provision. 12.2, 12.3, 12.4, 12.7	<u>Claims are submitted initially for the engineer's decision.</u> The owner or contractor may request mediation before the decision becomes final and binding. If not resolved by good faith mediation within 60 days, <u>the engineer's decision becomes final unless, within 30 days, (1) one party gives written notice of its intent either to litigate or to opt for the ADR process in the contract or (2) both parties agree to an ADR process</u> 16.01
	Dispute Resolution Expansion	
<u>No arbitration shall include, the architect, by consolidation or joinder, without its written consent. Other parties may be included in an arbitration between the owner and contractor, but only under limited circumstances.</u> 4.6.4	<u>All parties necessary to resolve a claim shall be parties to the same dispute resolution proceeding.</u> 12.5	Subject not addressed

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Electronic Data	
<p>Drawings, specifications and other <u>documents, including those in electronic form, prepared by the architect are Instruments of Service through which the Work to be executed by the contractor is described.</u></p> <p>1.6.1</p>	<p>Subject <u>not addressed</u></p>	<p>Data to be relied upon are limited to printed material. <u>Files in electronic format are only for the convenience of the receiving party. Hard copies govern over electronic files in the event of discrepancies. Transferring party is not liable for compatibility, usability or readability of software application transmittals.</u></p> <p>3.06 (A)</p>
	Errors and Omissions	
<p><u>Design errors and omissions noted by the contractor are to be reported promptly to the architect.</u> The contractor is not required to ascertain that the contract documents are in accordance with applicable laws, codes or similar requirements, but any known nonconformity is to be reported promptly by the contractor to the architect.</p> <p>3.2.2</p>	<p>Any errors, omissions or <u>inconsistencies</u> discovered by the contractor <u>shall be reported promptly to the owner.</u> This requirement does not create an affirmative responsibility to detect such discrepancies. <u>The owner must promptly advise what action to take about these defects.</u></p> <p>3.3.2</p>	<p><u>Requires contractor to carefully study and compare the contract documents and promptly report to the engineer any conflict, error, ambiguity or discrepancy</u> before proceeding with any Work affected. Contractor shall not be liable to the owner or engineer for failure to report discrepancies unless the contractor should have known about them.</p> <p>3.03 (A)</p>
	Hazardous Materials Definition	
<p>Refers to <u>materials and substances, not limited to asbestos or PCBs that may cause foreseeable bodily injury or death</u> to persons at an affected area at the job site.</p> <p>10.3.1</p>	<p>Defines hazardous materials as being <u>any substance or material identified as hazardous under any federal, state or local law or regulation</u> or otherwise subject to regulations governing handling, disposal or clean up. The broad definition would even include tobacco smoke.</p> <p>3.13.1</p>	<p>Hazardous environmental conditions are defined as the <u>presence at the job site of asbestos, PCB's, petroleum, hazardous waste and radioactive material in such quantities or circumstances as to present a substantial danger.</u></p> <p>1.01 (22)</p>
	Hazardous Liability	
<p>Except for materials and substances brought to the job site by the contractor without being required to do so by the contract documents, the <u>owner indemnifies</u> the contractor, subcontractors and architect for injury or death due to hazardous materials that are not rendered harmless – <u>provided such loss is not due to the sole negligence of the indemnified party.</u></p> <p>10.3.3, 10.4</p>	<p><u>Owner indemnifies</u> the contractor, its subcontractors and sub-subcontractors <u>to the extent not caused by their negligent acts or omissions</u>, against losses arising out of the Work in an area affected by hazardous materials, <u>including a duty to defend claims against an indemnified party.</u></p> <p>3.13.6</p>	<p><u>The owner and contractor each indemnify the other</u>, plus the engineer and all subcontractors, for losses relating to a hazardous environmental condition, <u>excluding the consequences of an individual's or entity's own negligence.</u></p> <p>4.06 (G), 4.06 (H)</p>

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Indemnity	
Except for losses covered by <u>PMPL insurance</u> , contractor indemnifies owner and architect for losses attributable to bodily injury, death or property damage (other than the Work itself), but <u>only to the extent caused by the negligent acts or omissions of the contractor</u> or its subcontractors or others employed directly or indirectly by the contractor. <u>The indemnity does not include a duty for the contractor to defend claims against others.</u>	A dual hold harmless scheme is used whereby <u>the contractor indemnifies the owner and A/E while the owner indemnifies the contractor and its subcontractors for bodily injury</u> , death and property damage (other than the Work itself) <u>to the extent of losses that might arise from the indemnifying parties negligent acts or omissions.</u> Each of their indemnification obligations <u>includes a duty to defend claims against an indemnified party</u>	Contractor indemnifies owner and engineer for losses arising out of or relating to performance of the Work, limited to bodily injury, death or property damage (other than the Work itself), but <u>only to the extent caused by the negligent act or omission of the contractor, or its subcontractors or suppliers.</u> There is <u>no duty for contractor to defend claims against others.</u> A limitation on indemnity of the engineer is added, as well as for patent infringement and adjacent property.
3.18.1	10.1.1, 10.1.2	6.20, 6.07 (B), 6.11 (A) 3
	Insurance	
Contractor is required to maintain workers compensation, general liability and related insurance for its operations, <u>including completed operations.</u> The owner is responsible for maintaining its usual liability coverage. <u>The owner is not allowed to require that the contractor include the owner, architect or others as additional insureds.</u> The owner may optionally require the contractor to maintain Project Management Public Liability (PMPL) as primary coverage for the owner's, architect's and contractor's vicarious liability. <u>Allows owner to require completed operations coverage if reasonably available.</u>	Since AGC 200 is a combination contract form and general conditions, space is provided in the contract section for the owner to insert the dollar minimum coverage relating to workers compensation and public liability insurance. <u>The contractor's primary CGL coverage is required to name the owner as an additional insured for liability arising out of the Work. This coverage must also include completed operations.</u>	Contractor is required to maintain workers compensation and general liability insurance. <u>Except for any customary professional liability exclusion, the contractor must include as additional insureds the owner, engineer and any others that are named in the Supplementary Conditions – including completed operations coverage for at least 2 years following final payment.</u> Insurance afforded to additional insureds must provide primary coverage for all covered claims.
11.1.1, 11.2.1, 11.3, 11.1.3	10.3	5.04
	Interim Changes	
<u>Construction change directives, prepared by the architect and signed by the owner and architect,</u> may be used in the absence of total agreement on the terms of a change order. <u>Progress payments are permitted for the amount of items not in dispute.</u> When full agreement is reached, the change directive is converted to a change order.	The owner may issue a written <u>interim directed change</u> prior to reaching agreement with the contractor on adjustment to contract price or time. Pending resolution, <u>owner must pay contractor 50% of its estimated cost to perform the Work in question.</u> Once full agreement is reached, a change order replaces the interim directed change.	<u>A work change directive, recommended by the engineer and signed by the owner,</u> is authorized to cover additions, deletions and revisions in the Work, plus differing site conditions and emergencies. <u>These directives do not change the contract price or time,</u> but rather contemplate issuance of a subsequent change order.
7.3	8.2	10.01, 1.01 (A) 52

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
Interest		
Payments due but unpaid bear interest at such rates as the parties agree upon in writing or otherwise at the <u>legal rate</u> prevailing at the place where the project is located. 13.6.1	Payments due but not paid bear interest at the <u>prime rate</u> prevailing at the place of the project. 9.9	Interest is <u>not addressed</u> .
Lien Information		
Owner must provide contractor information to evaluate or enforce contractor's mechanic's lien rights within 15 days of written request. It must include a correct statement of job site property and the owner's interest in it. 2.1.2	Owner is required to provide information needed to give notice of or to enforce mechanics lien rights and stop notices within 7 days of written request. This must include owner's interest in the realty and record legal title. 4.5	Upon reasonable written request, owner must furnish contractor with current statement of legal title and legal description of the land and owner's interest in it as necessary for giving notice of or filing a mechanics lien on such property. 4.01 (B)
Lien Waivers		
Contractor's payment applications must warrant that, to the best of contractor's knowledge and belief, all Work covered by prior owner payments is free and clear of all liens. This helps to protect the owner against diversion of its payments. 9.3.3	If required by owner, contractor must accompany its payment application with partial lien waivers and affidavits from its subcontractors and suppliers for completed Work. Such waivers are <u>conditional upon payment</u> . 9.2.3.1	Payment applications must confirm that the owner has received the materials free and clear of all liens. 14.02 (A) 1, 14.03
Overtime		
Working hours <u>not addressed</u>	Working hours <u>not addressed</u>	Generally, all Work shall be performed during regular working hours, and <u>the contractor may not permit work to be performed on Saturday, Sunday or a legal holiday without owner's written consent</u> , which shall not be unreasonably withheld. 6.02 (B)
Owner Assignment to Lender		
The owner, without consent of contractor, <u>may assign</u> the contract to the institutional lender providing project financing as long as the lender assumes all owner rights and obligations under the contract documents. 13.2.2	Owner may assign the contract without contractor's consent <u>to the institutional lender</u> financing the project as long as the assignment is no less favorable to the contractor than the owner-contractor agreement. 13.1	Subject not addressed.

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Owner Project Financing	
<u>Owner must</u> , upon contractor's written request, <u>provide reasonable evidence that financial arrangements have been made to fulfill owner's contract obligations</u> . The furnishing of this evidence is a condition precedent to contractor's commencement or continuation of the Work. Owner may not materially vary these financial arrangements without written prior notice to the contractor. 2.2.1	<u>Owner must provide evidence of project financing</u> upon written request of the contractor. Furnishing of this evidence is a condition precedent to contractor's commencing or continuing the Work. Contractor must be notified prior to any material change in financing of the project. 4.2	<u>If and to the extent that owner has agreed to furnish contractor with reasonable evidence that financing arrangements have been made to satisfy owner's contract obligations, such owner responsibility is to be set forth in the Supplementary General Conditions</u> . 8.11
	Owner Payment Reductions	
<u>Owner is entitled to hold back payments due to</u> (1) defective Work, (2) <u>third party claims filed or anticipated</u> , (3) failure of contractor to pay its subs properly, (4) evidence that Work cannot be completed for the balance not yet paid, (5) damage to owner property, (6) evidence of late completion and inadequate balance to cover liquidated damages and (7) persistent failure to carry out the Work per contract. 9.5.1	<u>Owner is entitled to adjust or reject a payment application or to nullify a previously issued one for all of the causes stated in AIA A201 with the important exception of Item #2 (third party claims filed or anticipated)</u> . AGC 200 does not address third party claims except to say that the contractor must cause removal of any liens by its subcontractors or suppliers within 30 days. 9.3, 9.2.3.2	<u>Owner may refuse to make full payment because of</u> (1) <u>claims against the owner on account of contractor's performance</u> , (2) unbonded liens, (3) contractual set-off's available to the owner, (4) defective or damaged Work, (5) pending contract price reductions or (6) <u>engineers knowledge of events justifying hold back of payments</u> . 14.02 (D), 14.02 (B) 5d
	Owner's Takeover of Work	
If the contractor defaults or neglects to carry out its Work following a 7-day notice, owner may issue <u>a second written notice requiring contractor to commence and continue correction of any deficiencies within a 3-day period</u> . Should the contractor fail to do so, the owner may have these deficiencies corrected and charge the cost to the contractor. 2.4.1	Unlike the dual notice procedures in AIA A201, AGC 200 provides <u>only a single 7-day period</u> for the contractor to commence and continue satisfactory correction of any default with diligence and promptness. Otherwise, the owner, without further notice, is entitled to correct the default and to deduct the correction costs from payments to the contractor. 11.2	In the event of a material default by the contractor, the owner has the option of <u>terminating the contract for cause and carrying out completion of the Work at the contractor's expense</u> . <u>Only a single 7-day written notice of intent to terminate is required</u> for this action. However, termination will not occur if contractor begins within 7 days of the intent to terminate notice to correct a deficiency and to complete the cure within 30 days. 15.02 (B), 15.02 (D). 13.09

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Payment – Stored Material	
Unless otherwise provided in the contract documents, <u>payment is to be made for material delivered and suitably stored at the job site and, if approved in advance by the owner, for material suitably stored at a location agreed upon in writing.</u> 9.3.2	Unlike AIA A201, <u>owner approval is required in advance of contractor's payment applications to include the value of material suitably stored either on-site or off-site.</u> 9.2.2	<u>Lacks specific authority for contractor to bill for stored material, but does identify documentation if payment is requested for material and equipment delivered and suitably stored at the job site or at an owner approved off-site location</u> 14.02 (A)
	Performance Standards	
The contractor is obligated to use its <u>best skill and attention</u> in performing the Work in accordance with the contract documents. <u>Work is to be free of defects not inherent in the quality required or permitted.</u> 3.1.2, 3.3.1, 3.5.1	Work is to be performed in accordance with the contract documents <u>in a workmanlike manner using only skilled persons</u> to perform the Work. <u>Work is to be free of material defects not intrinsic in the design or materials required by contract.</u> 3.5, 3.4.3, 3.8.1	Contractor must apply <u>such skills and expertise as may be necessary</u> to perform the Work in accordance with the contract documents. 6.01 (A)
	Property Insurance – On Site	
Unless otherwise provided, the <u>owner is to maintain "all risk" or equivalent coverage, including the interest of the owner, contractor, subcontractors, and sub-subcontractors for the initial contract amount plus contract modifications.</u> Coverage is to include without limitation fire, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and start up, temporary buildings, etc. 11.4.1, 11.4.1.1	<u>Owner must obtain builders risk or all risk coverage for the full replacement cost at the time of loss covering risks including at least fire, lightening, explosion, windstorm, hail, smoke, aircraft and vehicles, riot, flood, civil commotion, theft, vandalism, etc. plus damage resulting from defective design, workmanship or material. Contractor indemnifies owner for damage to owner's existing adjacent property.</u> 10.4.1, 10.4.4	Unless otherwise provided, <u>owner shall procure and maintain a builders risk "all risk" or open peril or special causes of loss policy form for the full replacement cost of job site losses, including the perils of fire, lightening, extended coverage, theft, vandalism, malicious mischief, earthquake, collapse, debris, demolition, water damage (except flood), testing and start up, false work and temporary buildings.</u> 5.06 (A)
	Property Insurance – Off Site	
<u>Property insurance must cover portions of Work stored off site and also Work in transit.</u> 11.4.1.4	Although property insurance is required for the entire project, <u>no mention is made of materials stored off site or in transit.</u> 10.4.1	<u>Coverage is to include materials and equipment in transit and stored at another location agreed to by the owner in writing.</u> 5.06 (A) 2, 5.06 (A) 4
	Property Insurance – Deductibles	
If the property insurance requires deductibles, the <u>owner must pay any costs not covered because of these deductibles.</u> 11.4.1.3	<u>The owner is solely responsible for any deductible amounts or coinsurance penalties.</u> 10.4.1	<u>Owner is not responsible to insure for deductible amounts. Risk of loss within this amount is borne by contractor.</u> 5.06 (D)

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Property Insurance Subrogation Waiver	
The owner and contractor waive <u>all rights against the other</u> and any of their subcontractors, architects, sub-subcontractors, agents and employees for damages caused by fire or other perils <u>to the extent covered by property insurance applicable to the Work</u> 11.4.7	The owner and contractor waive <u>all rights against the other</u> , plus their employees, agents, contractors, subcontractors and sub-subcontractors, <u>for damages caused by risks covered by property insurance for the project.</u> 10.4.3	All insurance policies shall state that the insurers will have no right of recovery against any of the other insureds. <u>Owners and contractors waive all rights against one another</u> and their employees, agents, consultants, subcontractors, etc. <u>for losses covered by property insurance applicable to the Work.</u> 5.07
	Relationship of Parties	
Topic <u>not addressed</u>	The <u>owner and contractor agree to proceed on the basis of mutual trust, good faith and fair dealing.</u> Both further agree to <u>promote harmony and cooperation among all project participants.</u> 2.1, 2.1.1	Topic <u>not addressed.</u>
	Retainage	
Contractors' payment applications are to reflect retainage if provided for in the contract documents. <u>Contractor is obligated to withhold from payments to its subcontractors only the percentage actually retained by the owner for the sub's portion of the Work. Upon substantial completion, owner shall make payment of retainage applying to such Work or designated portion of the Work, less the cost to complete any unfinished Work.</u> 9.3.1, 9.6.2, 9.8.5	Provides space to enter the percentage of retainage. <u>Once an early finishing sub has satisfactorily completed its Work, the owner may release retainage for that portion of the Work. After the project is 50% complete, the owner is to withhold no further retainage. Upon substantial completion, owner pays the retainage balance less 200% of estimated cost to complete all Work. In lieu of retainage, the contractor may furnish securities, with interest on these going to the contractor.</u> 9.2.4, 9.6.4	The amount of retainage applying to progress payments is to be stipulated in the owner-contractor agreement. <u>Presumably, retainage is not payable by the owner to the contractor until all requirements for final payment have been satisfied. There are no provisions allowing partial release of retainage upon achievement of milestone events such as substantial completion.</u> 14.02 (A) 3, 14.07
	Safety	
The contractor is responsible for initiating, maintaining and supervising safety precautions and programs for the overall Work. However, <u>the contractor must require that each sub, to the extent of its Work, assume toward the contractor all obligations for safety that the contractor assumes to the owner.</u> 10.1.1, 5.3.1	While the contractor has overall responsibility for safety precautions and programs, this <u>does not relieve subcontractors of their responsibility for the safety of persons or property, nor for compliance with all applicable laws and regulations</u> 3.11.1	<u>The contractor is solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Damage, injury or loss caused, in whole or in part by the contractor, any sub, supplier or other party employed by them, must be remedied by contractor.</u> 6.13

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Schedule of Work	
<p>Upon contract award, the <u>contractor is obligated to prepare and submit for the owner's and architect's information a construction schedule</u> for the Work within the time limits under the contract <u>and to revise the schedule at appropriate intervals</u> to reflect changed circumstances. Work is to be performed in accordance with the most recent schedule.</p>	<p>The <u>contractor must submit a schedule</u> of the Work <i>to the owner</i> before the first application for payment. <u>Upon owner's approval</u> of the schedule, contractor will comply with it. <u>Contractor is to update the schedule monthly or at appropriate intervals</u> to reflect changed conditions. The schedule is defined as the document showing beginning and completion dates for various parts of the Work and dates on which owner information and approvals are required.</p>	<p>Within 10 days of contract award, <u>contractor must submit a preliminary progress schedule to the engineer</u> showing starting and completion dates for stages of the Work. This schedule is then discussed at a conference among the owner, contractor, engineer and perhaps others. <u>The progress schedule must be acceptable to the engineer prior to any progress payments.</u> Contractor must adhere to the <u>schedule as adjusted from time to time</u>. Contractor is solely responsible for scheduling the work of its subs and suppliers. 2.05, 2.06, 2.07, 6.04. 6.06 (D)</p>
3.10	6.2.1, 2.3.15	
	Subcontractor Protections	
<p>(1) <u>The owner or architect may require copies of subs' and suppliers requisition copies to substantiate contractors' payment application amounts and to confirm flow through of retainage release.</u> (2) <u>Contractor payment applications may not include amounts that the contractor does not intend to pay a sub, supplier or others who perform the Work.</u> (3) <u>Except for fully bonded jobs, owner payments for subcontracted Work are to be held in trust by the contractor and used solely for payment to the subs, suppliers or others who performed the Work or furnished materials.</u> (4) <u>The architect is obligated, upon request, to provide subs with information about the percentage or amount approved for payment by the owner for the subcontractor's portion of Work</u></p>	<p><u>Does not provide any similar subcontractor/supplier protections.</u></p>	<p><u>Does not provide any similar subcontractor/supplier protections.</u></p>
9.3.1, 9.3.1.2, 9.6.3, 9.6.7		

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Subcontractors - Terms	
Contractors are required to bind each of their subcontractors to terms of the owner-contractor contract documents. This <u>includes assumption by subs of all responsibilities and subs being accorded the benefit of all contractor's contractual rights, remedies and redress. Contractor is required to provide copies of these documents to the subs and identify any terms of the proposed subcontract agreement that might be at variance with the contract documents. These same general contract obligations and benefits flow through to the lower tiers.</u> 5.3.1	<u>The contractor agrees to bind every subcontractor and material supplier to all provisions of the prime contract documents that apply to the sub's or supplier's portion of the Work and to require that subcontractors similarly bind lower tier entities.</u> 5.3	All work by subcontractors and suppliers must be pursuant to agreements specifically <u>binding them to applicable terms of the contract documents for the benefit of the owner and engineer. Subcontractors are defined as including entities having contracts with the contractor or one of its subcontractors. Contractor must require that all subcontractors, suppliers and others communicate with the engineer through the contractor.</u> 6.06 (G), 6.06 (E)
	Substantial Completion	
<u>Substantial completion occurs when the architect certifies that the Work, or a designated portion of the Work, is sufficiently complete so that the owner can occupy or utilize such Work for its intended purpose. Upon substantial completion, the architect establishes the duties of the owner for security, maintenance, utilities, insurance, etc. Warranties commence on this date, and owner is obligated to release retainage except for the estimated cost of incomplete Work or Work not in compliance with the contract.</u> 9.8	<u>Substantial completion occurs when the owner and contractor sign a Certificate of Substantial Completion indicating that the Work, or a designated portion, is sufficiently complete for owner use or occupancy. The certificate establishes their respective duties for interim items such as security, maintenance, utilities, insurance and damage to the Work. Unless the contract says otherwise, warranties begin on this date and retainage is payable, less 200% of estimated cost to complete or correct remaining items of Work.</u> 2.3.17, 9.6.2	<u>Substantial completion occurs when, in engineer's opinion, the Work (or a specified part of the Work) can be used for its intended purposes. Owner has 7 days to agree or disagree with engineer's certification. Engineer also recommends a division of owner and contractor responsibilities for security, operation, safety/ protection, maintenance, utilities, insurance, warranties, etc. Owner may exclude contractor from the site after substantial completion except to complete/correct Work. Retainage release at substantial completion is not addressed.</u> 101 (A) 45, 14.04
	Surety Bonds	
The owner may require the contractor to supply performance and payment bonds. <u>Subs may obtain a payment bond copy upon request to the contractor. The required bond amount is to be stated in the general contract.</u> 11.5	Space is provided to show if performance and payment bonds are required. <u>The penal sum of the payment bond is to be equal to the amount of the performance bond. No mention is made of copies being available for subs.</u> 10.7.1	<u>Performance and payment bonds are required for at least the contract amount. The surety must be on the U. S. Treasury Department's approved list. No mention is made about bond copies being furnished to subs.</u> 5.01

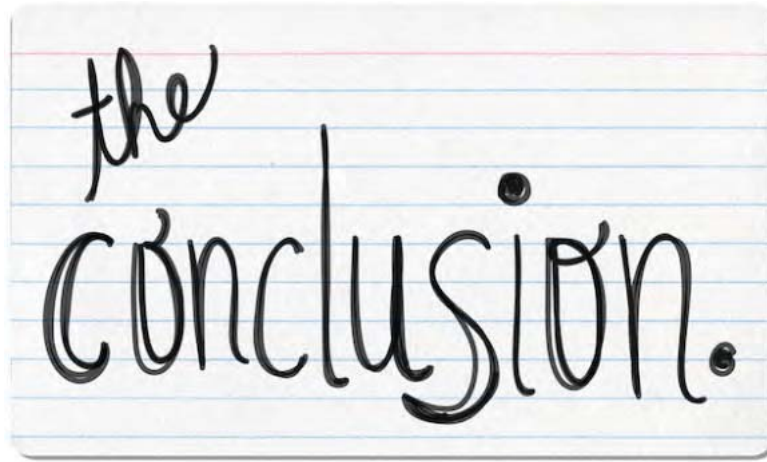
AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Taxes	
Contractor must pay sales, use and similar taxes enacted when bids are received or negotiations concluded. <u>Implied, but not stated, is contractor's entitlement to reimbursement for subsequent tax rate increases.</u> 3.6.1	Contractor must pay all applicable taxes enacted when bids are received or negotiations concluded. <u>The contract price is to be equitably adjusted for later tax increases.</u> 3.17.3	Contractor must pay all sales, consumer, use and similar taxes that are applicable during performance of the Work. However, <u>changes in laws not known at the time of contract, are subject to price adjustment.</u> 6.10, 6.09 (C)
	Termination for Cause -- Owner	
<u>The owner, upon certification of sufficient cause by the architect, may terminate the contractor following a 7-day notice</u> to the contractor and surety, if any. The owner may then finish the Work at the contractor's expense. <u>There is no second notice or cure opportunity for the contractor.</u> 14.2.2	If the contractor fails to commence and satisfactorily continue correction of a default within 7 days after owner's <u>notice to cure, the owner may terminate following a second 14-day notice, absent appropriate corrective action.</u> The owner is then entitled to complete the Work at contractor's expense. 11.3.1	<u>Owner may terminate the contract for cause upon providing the contractor with 7 days notice of intent</u> to do so. However, such <u>termination is not allowed if contractor begins, within 7 days of the notice, to correct the cited failures, and proceeds diligently to cure them within 30 days from receipt of the notice.</u> Otherwise, costs to complete, as certified by the engineer, are charged to the contractor 15.02
	Termination for Convenience	
<u>The owner is entitled to terminate the contract at any time for its convenience and without cause.</u> If the owner elects to do so, the <u>contractor is to be paid</u> for (1) Work completed, (2) costs related to the owner termination and (3) <u>overhead and profit on Work not executed.</u> 14.4.1, 14.4.3	<u>The owner may, without cause, terminate the contract upon written notice to the contractor.</u> Contractor agrees to minimize further costs. <u>Contractor is to be paid for</u> (1) Work performed to date, (2) any proven additional costs and (3) <u>a stated premium dollar amount to be inserted in the owner-contractor agreement</u> 11.4.1, 11.4.2	<u>The owner may terminate the contract, without cause, upon 7 days written notice to contractor and engineer. Contractor is then to be paid for:</u> (1) Work performed to date plus fair and reasonable overhead and profit on that Work, (2) expenses sustained prior to termination for uncompleted Work plus fair and reasonable overhead and profit on those expenses, (3) cost of terminating contracts with subcontractors and suppliers and (4) those reasonable expenses directly caused by the termination. <u>Contractor is not entitled to payment for anticipated profits or other economic loss resulting from the termination.</u> 15.03

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Termination by Contractor	
Contractor may terminate the contract, upon 7 days written notice, if the Work is stopped for various reasons not the fault of the contractor for 30 consecutive days or, without fault of the contractor, the entire Work is stopped for 120 days in any 365-day period. <u>Reasons include owner failure to make timely payment or to furnish reasonable evidence of adequate project financing.</u> Termination by contractor is also permitted for 60- day Work stoppage for owner default. <u>The contractor is entitled to payment for Work executed, proven losses and reasonable overhead, profit and damages.</u> 14.1	Upon 7 days written notice, contractor may terminate the contract if Work is stopped for 30 days for various causes and provided the contractor is not at fault. Contractor may also terminate for: (1) <u>owner failure to provide evidence of adequate project financing</u> , (2) assignment by owner over contractor's reasonable objection, (3) <u>failure to meet payment obligations</u> and (4) material breach of the contract. <u>Contractor is then entitled to payment for Work executed, proven losses and reasonable overhead and profit on Work not performed.</u> 11.5	If the contractor is without fault, the contractor may terminate the contract upon 7 days written notice if (1) Work is suspended 90 consecutive days by owner or court/governmental order, (2) the engineer fails to act on a payment application within 30 days or (3) <u>the owner fails to pay contractor within 30 days of engineer's approval.</u> Termination authority does not apply if engineer or owner remedies a failure within the notice period. <u>Contractor, upon termination, is entitled to the same set of payments allowed in 15.03 for owner termination for convenience (see above).</u> 15.04
	Payment Use Restrictions	
Unless the contractor provides a payment bond in the full penal sum of the contract, <u>monies received by the contractor from the owner for properly performed Work of subcontractors and suppliers must be held in trust for payment to them. Commingling with other funds is allowed.</u> <i>AIA's A201-1997 Commentary clarifies the trust intent of 9.6.7. 9.6.7</i>	Subject <u>not addressed</u>	Subject <u>not addressed</u>
	Warranty Correction Period	
Contractor's warranty correction period extends for a period of one year from the date of substantial completion, except that the one-year period for work performed after substantial completion shall commence from the date of actual performance of such work. <u>The correction period is not extended for corrective Work performed by the contractor.</u> 12.2.2.1, 12.2.2.2, 12.2.2.3	Contractor's warranty for correction of defective Work is for one year from the date of substantial completion for Work performed up to that date. For Work performed later, the one-year warranty correction period is extended accordingly. <u>Correction periods are not extended for corrective Work performed by contractor.</u> 3.9.1, 3.9.2	The warranty correction period is for one year after substantial completion (or such longer period required by contract). <u>Where defective Work is corrected or replaced, the warranty on such Work is extended for one year from satisfactory completion of such correction or replacement.</u> No exception is shown for Work originally completed before substantial completion. 13.07

AIA A201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Warranty Continuation	
The time limitations for warranty correction have no effect on the time within which legal proceedings may be commenced to establish the contractor's liability with respect to its obligations other than specifically to correct deficient Work. <u>Any applicable statute of limitations is deemed to run in addition to warranty correction requirements.</u>	The one-year period for correction of defective Work <u>does not constitute a limitation period with respect to enforcement of contractor's other contractual obligations.</u>	Contractor's correction period obligations are <u>not to be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.</u>
12.2.5, 13.7.1	3.9.6	13.07 (E)
	Warranty Exclusions	
Contractor's warranty excludes an obligation to remedy damage or defect caused by abuse, modifications by others than contractor, improper or insufficient maintenance, improper operation or normal wear and tear <i>and</i> normal usage.	Contractor's warranty excludes remedies for defects or damages caused by normal wear and tear <i>during</i> normal usage, unintended usage, improper or insufficient maintenance, modifications by others or abuse.	Contractor's warranty excludes defects and damage due to abuse, modification, improper maintenance or operation by parties other than the contractor or its subcontractors or suppliers. Normal wear and tear <i>under</i> normal usage is also excluded.
3.5.1.	3.8.1	6.19
	Differing Site Conditions	
If subsurface or other unknown job site conditions differ materially from those generally recognized as inherent in requirements of the contract documents, the contractor is entitled to equitable adjustment in time and price <u>following concurrence by the architect</u> and written notice before proceeding to execute the Work.	If job site subsurface or other physical conditions are materially different from those indicated in the contract documents or those ordinarily encountered and recognized as being inherent in the Work, the contractor may be entitled to a change in price and/or time following timely written notice.	If any subsurface or physical condition at or contiguous to the site differs materially from that shown in the contract or from conditions ordinarily encountered and generally recognized as inherent in the Work, and the contractor promptly notifies the owner and engineer, the contractor is entitled to claim for an increase in price and/or time.
4.3.4	3.16.2	4.03
	Joint Drafting	
This subject is <u>not addressed</u> since A201 is not a combination owner-contractor agreement and general conditions.	<u>The parties agree that the contract was jointly drafted</u> and that both had an opportunity to negotiate its terms with assistance of counsel. Hence, the contract language is to be construed in a neutral manner. 13.6	<u>Not addressed</u> since the C-700 document is not a combination owner-contractor agreement and general conditions.

AIA 201 (1997)	AGC 200 (2000)	EJCDC C-700 (2002)
	Progress Payment Timing	
If the owner does not pay the contractor within 7 days after the payment due date in the contract documents, the contractor may, upon 7 additional days written notice, stop its work until payment for the amount owing is received.	The owner is to pay the contractor <i>monthly</i> no later than 20 days after contractor has submitted a complete, accurate payment application. If owner does not pay within 7 days of due date, contractor may stop work after providing a 7 day written notice.	Owner is obligated to pay contractor within 10 days after engineer's presentation of application of payment duly recommended by the owner. If the owner does not make full payment as recommended, the owner is obligated to give the contractor and engineer an immediate written explanation.
9.7.1	9.2.1	14.02 (C) 1, 14.02 (D) 2
	Cleaning Up	
If the contractor fails to clean up as required by contract, the owner may do so and charge its cost to the contractor. <i>No prior notice is required.</i> Should a dispute arise about responsibilities for clean up, owner may perform the clean up, and the architect is to apportion the cost to those responsible.	If the contractor fails to begin clean up <i>within 48 hours of owner notification</i> to do so, the owner may implement clean up measures without further notice and deduct the cost from amounts owing to the contractor.	Contractor is required to remove debris to keep the site free from accumulations of waste materials, rubbish and other debris, but <u>does not</u> address owner's right to clean up if contractor fails to do so.
3.15.2	3.19.1, 3.19.2	6.11(3) B & C
	Changes and Claims	
Change orders, prepared by the architect and signed by the owner, contractor and architect, are used for Work changes and adjustments in contract price and/or time. Price changes are to be lump sum, unit price or cost plus reasonable overhead and profit. Claims must be initiated <i>within 21 days after claimant first recognized the condition giving rise to the claim.</i> The architect has authority to order minor changes in the Work not involving adjustments in price or time.	Change orders are used for changes within the scope of the contract upon contractor's request to owner for changes in the Work or timing/sequencing that impact price or time. The owner and contractor shall negotiate in good faith any adjustment in price and/or time. Adjustments are determined by unit price, agreed lump sum or cost plus a fee (either lump sum fee or percentage of cost). Contractor claims must ordinarily be reported <i>within 14 days after contractor first recognized the condition giving rise to the claim.</i>	The contract price and time may only be changed by change order. Claims require prompt notification (<i>no later than 30 days after start of an event giving rise to the claim</i>). Supporting data must be delivered within 60 days after the date of such event unless the engineer allows additional time. Price changes are determined by unit prices, agreed lump sum or demonstrated additional cost plus a fee for overhead and profit. For labor, material, etc., this fee is 15%. For subcontracted work, it is 5%.
7.2.1, 7.3.3, 7.3.5, 4.3.2, 7.4.1	Art. 8, 8.1.1, 8.3.1, 8.4	12.01, 12.02, 10.05

7. CONCLUSION



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7. CONCLUSION

Program Outline

1. Contracting 101
2. Purchasing Construction Services
3. Scope of Work
4. Contract
5. Risks
6. Insurance
7. Conclusion



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7. CONCLUSION

Learning Objectives

- Offer an overview of construction contracts and the key components of contracts that aid in the management of risk
- Introduce a framework to help you identify and address the most common pitfalls that cause project shortcomings, defects, delays, cost over-runs, legal disputes, and headaches in general
- Offer an overview of insurance products that are applicable to construction professionals, businesses, and projects, and their use in managing risks
- Fit this framework for the management of construction risks into PFCS' DBSKCV Method of Construction Management

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End

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Maintaining your property is hard. We can help.

Building Life-Cycle Management Services for Owners, Associations and Managers

EVALUATION

Property Condition Assessment (per ASTM E2018)

Leak Investigation and Testing (per ASTM E2128)

Information Management (Incl. Document Storage and Access per ASTM E2166)

SPECIFICATION

Consultation

Maintenance Plan

Maintenance Manual

Reserve Study (In close coordination with a Reserve Study specialist)

Budget

Life-Cycle Cost Analysis

Specifications for Maintenance, Repair and Improvement

QUALITY MANAGEMENT

Progress Schedule

Request for Proposal

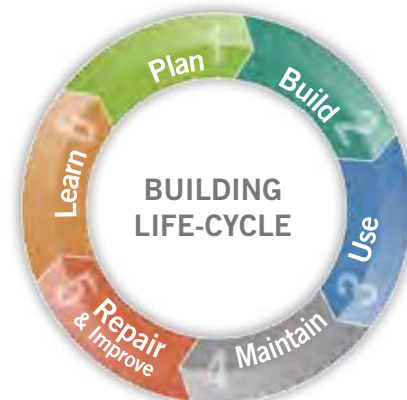
Proposal / Bid Analysis

Contracts

Construction Management including invoice and change order processing

Quality Control Inspections

Warranty Management



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PROJECT MANAGEMENT: To deliver valuable work with measurable return on investment (ROI), we have to manage the Scope, Budget and Schedule of our work and yours.

TECHNOLOGY: We use proprietary technology to create valuable work faster, better and cheaper, to make the information available to all applicable stakeholders, and to create a permanent digital record at no extra cost.

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